

**Forest Stewardship Council
United States
National Forest Stewardship Standard**

Draft 2.0-V2-2022
Principles 1–10 and Annexes

[Including **Family Forest Indicators**, **Plantation Indicators**, and
Federal Land Supplementary Requirements]

Prepared for the Second Consultation
March 31, 2022

Approval for Consultation by the FSC US Board of Directors,
Serving as the Standard Development Group

Table of Contents

INTRODUCTION	2
PRINCIPLE 1: Compliance With Laws	15
PRINCIPLE 2: Workers' Rights and Employment Conditions	22
PRINCIPLE 3: Indigenous Peoples' Rights	30
PRINCIPLE 4: Community Relations	36
PRINCIPLE 5: Benefits from the Forest	41
PRINCIPLE 6: Environmental Values and Impacts	46
PRINCIPLE 7: Management Planning.....	89
PRINCIPLE 8: Monitoring and Assessment	102
PRINCIPLE 9: High Conservation Values	109
PRINCIPLE 10: Implementation of Management Activities.....	114
ANNEX A: Glossary.....	129
ANNEX B: FSC US Regions.....	161
ANNEX C: Applicable Laws, Regulations, and Nationally Ratified Agreements	167
ANNEX D: Dispute Management System Framework	173
ANNEX E: Training for Workers	178
ANNEX F: Culturally Appropriate Communication and Free, Prior, and Informed Consent (FPIC)	180
ANNEX G: Representative Sample Area Methodology.....	189
ANNEX H: Conservation Areas Network.....	197
ANNEX I: Plantation vs. Natural and Semi-Natural Forest.....	201
ANNEX J: Monitoring Social Values and Environmental Conditions.....	206
ANNEX K: High Conservation Value Framework	209
ANNEX L: Climate Change Toolkit.....	245

INTRODUCTION

The Forest Stewardship Council® (FSC®) is an international non-profit organization founded in 1993 to support environmentally appropriate, socially beneficial, and economically viable management of the world's *forests**. FSC does this by setting standards for responsible forest management, which are then used by accredited *Certification Bodies** to assess the performance of participating organizations. Forest operations that meet these standards are permitted to use the FSC label on their products in the marketplace, thereby enabling consumers to choose and purchase products that come from *forests** managed according to FSC standards.

This FSC US National Forest Stewardship Standard represents the United States adaptation of FSC's global Principles and Criteria (FSC-STD-01-001 V5-2) and International Generic Indicators (i.e., IGIs; FSC-STD-60-004 V2-0). The national adaptation of this international framework ensures that the specific standard requirements are locally relevant, applicable, and workable, as well as guarantees its integrity across the broader FSC system.

Development of the FSC US Standard

In 2010, the FSC US Forest Management Standard Version 1 was approved and published. Version 1, which was applicable to the conterminous United States, replaced nine individual regional FSC Forest Management standards and was aligned with the FSC Principles and Criteria Version 4.

In April 2016, the FSC US Board of Directors agreed to be the Standard Development Group for a revision process that would align the national standard with FSC Principles and Criteria Version 5, and the International Generic Indicators. As the Standard Development Group, they appointed a technical working group to develop recommendations for the revision. The technical working group members included both FSC members and non-members with the expertise and experience to represent the three FSC chambers, US regions, and key stakeholder groups. From 2017 through 2020, the technical working group met regularly, both in person and virtually, to develop their recommendations for the Standard Development Group.

The drafting of individual *Indicators** was guided by two FSC International documents:

- FSC-STD-60-004 V1-0 EN International Generic Indicators; and
- FSC-PRO-60-006 V1-0 EN Development and Transfer of NFSS to FSC P&C V5

These documents outlined how the SDG was to use the International Generic Indicators (IGIs) as a baseline for drafting the new Standard. Also known as the “transfer process,” the SDG had four options for interpreting each IGI.

1. **Adopt:** The SDG copies an International Generic Indicator into the new FSC National Forest Stewardship Standard.
2. **Adapt:** The SDG reviews and revises an International Generic Indicator in order to address terminology, scope, or effectiveness in measuring conformance to a *Criterion**.
3. **Drop:** The SDG omits an International Generic Indicator where it is determined to be inapplicable or otherwise non-contributing in measuring conformance to a *Criterion**.
4. **Add:** The SDG suggests additional *Indicators** in order to better establish conformance to a *Criterion** as appropriate in a US context.

Following receipt and consideration of the technical working group’s recommendations in 2020, this draft FSC US National Forest Stewardship Standard (Version 2, Draft 1) was approved for consultation by the Standards Development Group through a consensus decision. This draft maintains consistency with the previous version, and:

- Aligns the US standard with the new FSC Principles and Criteria (V5-2) and International Generic Indicators (IGI)
- Addresses a small number of high-priority issues identified by stakeholders
- Incorporates guidance that has been in use, but not formally adopted
- Addresses needed editorial and grammatical clarifications.

This draft includes the “base indicators” for Principle 1 through Principle 10, and associated annexes, that will be applicable to almost all certified Organizations, but does not include the Scale, Intensity, and Risk Indicators (i.e., SIR Indicators: *family forest** indicators and plantation indicators), nor the supplementary requirements for US Forest Service lands. These additional materials will be consulted through a separate first public consultation, and then all materials will be combined for the second public consultation in 2021.

Structure of the Standard

This Draft 1 FSC US National Forest Stewardship Standard maintains the internationally established hierarchical structure where:

- **Principles*** are at the highest organizational level. These are the essential rules or elements of forest stewardship. FSC US's Standard includes 10 *Principles** as prescribed by FSC International. Each *Principle** contains a series of *Criteria**, which subdivide the *Principle**.
- **Criteria*** provide the means of judging if a *Principle** has been fulfilled. Each *Criterion** contains one or more *Indicators**.
- **Indicators*** are the components of the Standard that are directly applicable to *The Organizations**. *Indicators** contain the performance direction that *The Organizations** must meet or to which they must adhere.

Together, the *Principles** and *Criteria** are the foundation of FSC certification, and are not subject to revision at the national or regional levels. *Indicators** have been specifically customized and drafted for application in the United States context. All *Principles**, *Criteria** and *Indicators** share equal status, validity and authority, and apply at the level of the *Management Unit**. Corrective Action Requests (CARs) are issued by *The Organization's* Certification Body** when there is a finding of nonconformance with an *Indicator** and/or *Criterion*.

All *Principles**, *Criteria**, and *Indicators** contained in this document, as well as the Glossary in Annex A, are considered *normative** elements.

Defined Terms are integral to accurate interpretation of the *Principles**, *Criteria** and *Indicators**. Terms for which a definition is provided in the Glossary are *italicized* and are marked with an asterisk (*). It is essential that *Organizations**, *certification bodies* (CB)*, and auditors incorporate the use of the glossary and specific definitions of the defined terms when interpreting the *Principles**, *Criteria**, and *Indicators** of the Standard. There are some terms that are defined differently in this Standard than in other FSC normative documents. These are: *Certification body**, *Child labor**, *Complaint**, *Conservation zone**, *Customary law**, *Discrimination**, *Dispute**, *Dispute of substantial magnitude**, *Endangered species**, *Forest**, *Gender equality**, *Genetically modified organisms**, *Habitat**, *Invasive species**, *Landscape**, *Local communities**, *Long-term**, *Natural conditions**, *Natural forest**, *Non-timber forest products**, *Plantation**, *Protected area**, *Rare species**, *Refugia**, *Representative Sample Area**, *Restore/restoration**, *Rights holder**, *Threatened Species**, *Timber harvesting level**, and *Wetland**.

Annexes (with the exception of Annex A, the Glossary) do not represent *normative** requirements, but instead provide guidance. When an annex is referenced in an *Indicator**, *The Organization** is expected to consider the guidance provided in the annex as they work to conform with the *Indicator**, but *The Organization** is not required to conform to all aspects of the annex.

Applicability notes are included in boxes associated with some *Indicators** and are intended to clarify the *Indicator** by defining its scope of application—for example, an *Indicator** may only apply to management of publicly owned lands, or to management operations of a certain *scale** or *intensity**.

Intent notes associated with some *Indicators** expand on the goals or purpose of a requirement and define terms. Intent statements are used to facilitate consistent application and audit of the *Indicators**.

Guidance statements and guidance in annexes are intended to help *The Organization** and the *Certification Body** to understand how the *Principles**, *Criteria**, and *Indicators** should be applied in practice. *Certification Bodies** are expected to use the guidance language associated with each *Indicator** when seeking and weighing evidence and assessing conformance with the *Indicator**. Individual elements within the guidance when considered separately are not requirements of this Standard. However, it may be possible for lack of performance relative to an individual guidance element to be interpreted to mean noncompliance if, when considering the sum of the evidence, the *Certification Body** finds that there is clear evidence that the *Indicator** has not been met. In some cases, other information or *management activity** not specified in the guidance may be provided by *The Organization** to demonstrate conformance with the *Indicator**.

The compulsory nature of instructions found in the *Principles**, *Criteria**, *Indicators**, and guidance is defined as follows:

- “Shall” indicates instructions that are to be strictly followed.
- “Should” indicates that among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others.
- “May” indicates a course of action permissible within the limits of the Standard.
- “Can” is used for statements of possibility and capability, whether material, physical, or causal.
- “Includes” implies that all elements in the list must be addressed, but does not imply that the list is comprehensive.

While the thresholds or requirements for conformance are outlined within each *Indicator**, the specific collection of documentation and other evidence to demonstrate conformance is up to *The Organization**.

Scope of the Standard

This draft National Forest Stewardship Standard (Version 2, Draft 1) pertains to FSC-certified *Management Units** in the conterminous United States, which excludes Alaska, Hawaii, and the US territories. *Natural forests**, *semi-natural forests**, *plantations** and *non-timber forest products** are included within the scope of certification.

NOTE: Based on the feedback received via the consultation questions below, a specific list of non-timber forest products that are in-scope for the standard will be included in Draft 3.

Application of the Standard

FSC forest* management certification is designed to provide a credible guarantee that all *Management Units** included in the scope of the certificate conform with the requirements of the Forest Stewardship Standard specified on the certificate. FSC certification therefore applies to the *Management Unit** and all activities related to forest management that occur within its boundaries.

The Organization* is the entity holding or applying for certification that has control and authority over the management of the *Management Unit**. FSC certification does not apply solely to *The Organization's** activities, but to all activities within the *Management Unit**. *The Organization** may be the forest owner, forest manager, or both. It is the responsibility of *The Organization** to demonstrate that the Standard's requirements have been met within the *Management Unit**. In several instances, *The Organization** may rely on the efforts of other parties who play a role in meeting certain requirements (e.g., government entities, *Indigenous Peoples**, and *stakeholders**). However, where gaps in performance exist, it is the responsibility of *The Organization** to address these gaps, within their sphere of influence.

In cases where discrete portions of the *forest** are **beyond the management control** of *The Organization**, *The Organization** may excise these areas from the scope of the certificate. Refer to FSC policies and procedures regarding excision (FSC-POL-20-003). Indicator 1.3.3 addresses situations in which compliance with *applicable laws** or regulations conflicts with compliance with FSC *Principles**, *Criteria**, or *Indicators**. Regardless of whether a portion of the *Management Unit** is excised, or whether *The Organization** has control and authority over the management of other management units that are not FSC-certified (i.e., partial certification), *The Organization** may not be directly or indirectly involved in any of the unacceptable activities defined in the FSC Policy for Association (FSC-POL-01-004).

Regional variation has been retained from the FSC US Forest Management Standard, Version 1 (i.e., Version 1 of this draft Standard) in a small number of Principle 6 and Principle 10 *Indicators**. Numerous guidance statements throughout this Standard also provide regional specificity. The FSC US regional delineations may be found in Annex B of this Standard.

Scale*, Intensity*, and Risk* - The concept of *Scale**, *Intensity**, and *Risk** applies throughout the Standard. The Standard is designed to be applicable to a wide range of *management units** from less than 1000 acres with *management objective** exclusively focused on conservation goals established by a conservation easement to 100,000+ acres industrial forests with the goal of maximizing profit while also conforming to the Standard. The larger the *scale**, *intensity**, and/or *risk** the more robust both the management systems and the audit practices must be in order to demonstrate conformance. For example:

- A. A forest which harvests 95% of the *sustained yield harvest level** will require a significantly more sophisticated sustained yield model and monitoring in order to demonstrate conformance to Criterion 5.2 compared to a forest which harvests 25% of the *sustained yield harvest level**.
- B. Due to the small *scale** of *family forests** which may be managed by a single forester, the requirement for documentation is decreased for some indicators since there is less risk of the management systems being implemented differently by different staff members such as may occur in larger *organizations**.
- C. *Management Units** with substantial streams and wetlands; *rare, threatened, and endangered species**; or highly erodible *soils**; inherently pose a greater risk of non-conformance compared to a *Management Units** with flat topography, no streams or wetlands, and absent *rare, threatened and endangered species**.

In addition to the specific *family forest* Indicators** in which the normative requirements are modified to account for the decreased *scale**, *intensity** and *risk** common to *family forests**, *Certification Bodies** and auditors adjust the implementation of the sample-based audit practices

and evidence needed to demonstrate conformance with the Standard by accounting for the broad range of unique factors that influence each *Organization's** *scale**, *intensity**, and *risk**.

This document represents one component of the requirements for FSC certification. There are **multiple other policies**, developed at an international level, with which *The Organization** must comply. These policies may not be referenced in this Standard and are available at the FSC International website (<https://www.fsc.org>).

Requirements on ***non-timber forest products**** (i.e., NTFP), in all parts of this Standard, are intended only for those that are commercially harvested or that are harvested in association with *legal** or *customary use rights** on *non-tribal** *Management Units**. Information used to support *non-timber forest product** management, including *sustained yield harvest rates** and methods for managing *non-timber forest products**, is commensurate with the *scale**, *intensity**, and *risk** of harvest operations, as well as the resources available to quantitatively assess impact and management. In all cases, *The Organization** must at a minimum assure that *non-timber forest products** are not being depleted and that there are no negative external effects on other resources.

CONSULTATION QUESTIONS:

Recently, FSC International staff communicated to FSC US staff that they are trying to move away from specific standards for specific non-timber forest products (NTFP). Instead, they are encouraging SDG to incorporate certain International Generic Indicators (IGI) into their NFSS, which would allow the NFSS to specify NTFP that are in scope for certification under the standard. An assessment by FSC US of the list of IGI provided by FSC International staff indicates that only one additional indicator would be necessary to incorporate NTFP formally into the FSC US standard.

FSC US reached out to Certification Bodies in the US with a request for information regarding currently certified NTFP in the US, and also NTFP where interest has been expressed, but are not currently certified. All respondents were supportive of including NTFP in the NFSS and believed there would be interest in certification of these materials.

There are no NTFP currently FSC certified in the US. The following have either been previously certified (#), or have had interest previously expressed.

- Balsam boughs #
- Spruce tops (for Christmas trees) #
- Maple syrup #
- Birch or yellow poplar bark
- Willows
- Witch hazel ointment
- Black ash (for baskets)
- Sap-based foods (e.g., hickory syrups, derivatives of both maple and hickory syrups);
- Resins and oils;
- Chaga
- Mushrooms and other Fungi
- Ginseng and other teas/herbals/medicinals (e.g., cohoshes, yaupon holly, etc.).
- Fruits (e.g. juniper and salal berries) and nuts (e.g. chestnuts, walnuts)
- Branches, boughs
- Pine straw (needles)

- Holiday trees and other ornamental plants

The Standard Development Group would like to identify and include specific US NTFP within scope for this revised standard. A new indicator (Indicator 1.3.5) has been included to help achieve this objective. However, additional information is needed before NTFP can be formally included in scope. Public consultation participants are asked to respond to the following questions to assist with this information gathering:

- What are the priority NTFP products for which FSC certification is desired?
- Are there any Draft 2 indicators that need to be further adapted to ensure the NTFP are produced in responsibly managed forests?
- For any of the NTFP listed above, is there insufficient information available to determine sustainable harvest levels (per Criterion 5.2)?
- Are any of the NTFP listed above, or other NTFP, threatened by typical forest management activities?

Multiple sections in this Standard call for **designations of special management**—among these are *High Conservation Value Areas**; *Representative Sample Areas**; *conservation zones** for *rare, threatened, and endangered species**; and *Riparian Management Zones**. These designations, although designed to capture differing values, are by no means mutually exclusive and in many cases, one would expect to see a high level of overlap. For example, an unentered old-growth stand within a *Management Unit** would most likely be designated as a *High Conservation Value** due to its ecological values and would likely also serve as a *Representative Sample Area**. *The Organization** is encouraged to consider the overlap of goals when designing configurations of special management areas in order to maximize the environmental, social, and economic values of the *forest**.

FAMILY FORESTS

Background

FSC strives to ensure equity of access to certification. In 2004, as a response to the challenges faced by small, non-industrial private landowners in accessing FSC certification, the FSC approved its Small and Low-Intensity* Managed Forests “SLIMF” policy. This policy allows for SLIMF operators, known in the U.S. as Family Forests (see applicability criteria below) to be evaluated for FSC certification using modified certification procedures and, in some cases, alternative forest management indicators that take into account scale and *intensity** of small and low *intensity** forest management operations. This Standard contains a set of Indicators and guidance language that have been developed specifically for Family Forests.

Applicability of Family Forest * Indicators/Guidance

Definition of Family Forest: A “family forest” in the United States is equivalent to a “Small and Low Intensity* Managed Forest” (SLIMF) as defined in the FSC global system.

Any non-public management unit that meets the FSC definition of ‘Small and Low Intensity* Managed Forest’ is eligible to be considered a Family Forest and to use the Family Forest Indicators. According to FSC, these eligibility requirements are:

- Small: A *Management Unit** that is 1,000 hectares (2,470 acres) or less in size; OR
- Low Intensity:
 - a) the rate of harvesting is less than 20% of the mean annual increment (MAI) within the total production forest area of the unit, AND
 - b) EITHER the annual harvest from the total production forest area is less than 5000 cubic meters,
 - c) OR the average annual harvest from the total production forest is less than 5000 m³ / year during the period of validity of the certificate as verified by harvest reports and surveillance audits.

Federal Lands: Federal lands are not eligible to use the Family Forest Indicators, with the exception of Indicator 6.8.1.

Non-Federal Public Lands: Public lands will be eligible to use the Family Forest Indicators only in very limited situations. City and county parks and forests are eligible. Other non-Federal public lands that are determined by the *Certification Body** to be within the definition of the ‘Small’ component of SLIMF, but not the ‘Low Intensity’ component, as defined above are also eligible. For non-Federal public lands that are deemed eligible to use the Family Forest Indicators, all Indicators in the FSC US National Forest Stewardship Standard that are identified as applicable only to public lands are also applicable to public lands using the Family Forest Indicators.

Terminology for Family Forest Indicators and Guidance

The set of *Indicators** developed specifically for *family forest* Management Units** include a number of different types of *Indicators**. Some *Indicators** are the same as for non-*family forest* Management Units** and some are different:

- a. *The Organization** is assumed to be in conformance with *Indicators** that are designated as being of ‘low risk’ for *family forest* Management Units**. The *Certification Body** is not expected to assess for conformance with these *Indicators** during audits of the *Management Unit**, unless the *Certification Body** observes or is presented with evidence suggesting that *The Organization** is not in conformance with the *Indicator**.
- b. *The Organization** is not required to be in conformance with *Indicators** that are designated as being ‘not applicable’ for *family forest* Management Units**. The *Certification Body** is not ever expected to assess for conformance these *Indicators** during audits of the *Management Unit**.
- c. *The Organization** is required to be in conformance with *Indicators** that are provided as *family forest**-specific alternatives to base *Indicators**. The *Certification Body** is expected to assess for conformance with these *Indicators** during audits of the *Management Unit**.
- d. *The Organization** is required to be in conformance with *Indicators** that do not have

any *family forest**-specific designations or alternatives. The *Certification Body** is expected to assess for conformance with these *Indicators** during audits of the *Management Unit**. The *Organization** and *Certification Body** may consider *family forest**-specific guidance when it is provided with these *Indicators** to clarify expectations of *family forest** *Management Units** related to these *Indicators**.

PLANTATIONS

Background

FSC supports the responsible management of existing *plantations** and the products derived from harvesting activities in these areas as a strategy to complement *conservation** and the sustainable use of native *forests**. As global consumption of *forest** products continues to grow, responsibly managed *plantations** certified by FSC can play a crucial role in ensuring their supply is sustainably sourced. While *plantations** cannot replace the richness, stability, and beauty of native *forests** or the complexity of the services they provide, applying the FSC standards to them ensures their management is defined by transparency and fairness, and minimizes negative environmental and social effects. Since 1994, FSC has prohibited *conversions** of *forests** to *plantation**. Therefore, any *plantations** converted after 1994 are ineligible for FSC certification (with very limited exceptions, as indicated per Criterion 6.10).

The presence of most of the principal characteristics and key elements of native *forest** *ecosystems** is primary to discerning *natural forests** or *semi-natural forests** from *plantations**. Therefore, a "planted *forest*" is not necessarily a "*plantation*" since it may have most of the principal characteristics and key elements of native *forest** *ecosystems** endemic to an area. Additionally, given that the *intensity** of *management activities** may influence the presence of these characteristics/elements, classification of a *forest** as a *plantation** should be based on the presence or absence of these characteristics/elements. A *plantation** is identified when a *stand** does not provide most of the principal characteristics and key elements of native *forest** *ecosystems** relative to a *natural forest** *stand** AND it is clear that the absence of these attributes is a result of *silvicultural** treatments, such as those *plantation** management practices listed below. Annex I provides additional guidance for discerning *natural forests** or *semi-natural forests** from *plantations**.

Intent of the Standard Development Group Regarding Plantations*

It is the intent of the Standard Development Group to encourage existing plantations in the US to become FSC certified (except on public lands). Given that many of the existing plantations in the US were established on degraded agriculture lands, and that opportunities exist to mitigate intensive practices and enhance environmental and social impacts, the Standard Development Group believes that FSC-certification of these forests will have a positive impact on environmental and social values associated with these lands. FSC certified plantations are a very large source of FSC certified materials globally, and this will also help to increase the availability of FSC-certified materials to manufacturers and encourage more local sourcing of FSC-certified materials. However, due to the *intensity** of management that occurs within plantations, this standard expects a higher level of effort from management units with plantations toward maintenance and/or restoration of natural forest and semi-natural forest than management units without plantations. Additionally, this standard strives to fragment large contiguous plantations, so that they are able to provide greater environmental and social benefits within the matrix of the plantation stands.

Applicability of Plantation Indicators

Plantation Indicators represent a variance of a base *Indicator** that is intended to reflect and address the increased *risk** of negative impacts on environmental or social values associated with the more intensive management that occurs within *plantation** stands.

If a Plantation Indicator is, or multiple Plantation Indicators are, included with a base *Indicator**, any portions of the *Management Unit** that are identified as *plantation** are to be assessed for conformance with the Plantation Indicator(s) instead of the base *Indicator** (i.e., they are to be treated as mandatory alternate *Indicators** to the base *Indicators**). For Plantation Indicators with outcomes defined at the management unit scale, the scale of conformance will be the management unit (i.e., not just plantation stands). If no Plantation Indicators are included, then the *plantation** portions of the *Management Unit** are to be assessed for conformance with the base *Indicator**. This applicability holds true for *family forest* management units** with plantations – these management units may conform with the Family Forest Indicators, with the exception of indicators with associated Plantation indicators, in which case the *family forest* management units** must conform with the Plantation Indicators as described above.

While public lands with plantations may become certified, they are expected to restore plantations to semi-natural or natural forest conditions.

ANNEX M: Supplementary Requirements for Federal Lands in the United States

NOTE: In the existing FSC US Forest Management Standard (V1-1), the Supplementary Requirements for National Forests are provided in Appendix H without the base indicator text. Similarly, for the official, approved version of the revised Standard (i.e., the FSC US National Forest Stewardship Standard, V2-0), the Supplementary Requirements for Federal Lands will also be maintained in an Annex without the base indicator text. However, for the purposes of this public consultation, they are provided below in context with the Draft 2 base indicators to assist with review and commenting.

Background

This appendix to the FSC US Forest Management Standard V2.0 functions as the set of supplemental normative requirements for forest management certification audits that are applicable, as indicated, to lands managed by US Federal agencies that are eligible for FSC certification. At this time, lands managed by the following agencies are eligible for certification: the USDA Forest Service (USFS; National Forests), the US Department of Defense (DOD), and the US Department of Energy (DOE). Other Federal agencies may gain eligibility following the FSC US Federal Lands Policy. Additionally, the Marsh-Billings-Rockefeller National Historic Park received FSC US Board of Directors approval for FSC certification. **For any Federal lands to be certified, the applicable Federal agency must conform to these supplemental requirements as well as all other applicable requirements in this Standard for the Federal lands that are in scope for certification.** These additional requirements are considered necessary to address the unique conditions associated with Federal lands, including ownership, history, mandate, and special resource management objectives.

The need for these supplementary requirements is further elaborated in, and conforms to, the FSC US *Federal Lands Policy* (revised November 2012), which provides a set of issues to consider in their development.

These supplementary requirements were developed with a commitment to advancing a shared perspective of what certification of Federal lands should require. Central is the explicit recognition that commercial timber harvest takes place within the context of current law and the broader range of environmental, social and economic values and benefits provided by Federal lands.

The process employed to develop these supplementary requirements followed FSC procedural requirements for developing/revising normative documents, including technical input and oversight from a chamber-balanced and consensus-based Standard Development Group and opportunities for broader stakeholder engagement.

Eligibility for Certification

Per the FSC US *Federal Lands Policy* (revised November 2012), in order for any Federal Lands to undergo an assessment in pursuit of possible certification, two conditions must be met:

1. ***The agency demonstrates it is a willing landowner to participate in the certification process.*** It is expected that this will include a commitment at the national level (e.g., the Chief of the Forest Service) to adhere to the FSC Principles & Criteria for the Federal administrative unit pursuing certification, and to the *FSC Policy for Association* (FSC-POL-01-004) for all lands administered by the applicable Federal agency as a whole. Further, the administrative unit Supervisor is expected to pursue certification through a *Certification Body** that will follow the Federally-adapted protocols for conformity assessments provided as guidance to *Certification Bodies** by the FSC US Board of Directors.
2. ***The existence of national-level Indicators* that address the special resource management, legal, technical, procedural, and governance issues associated with federal ownership.*** The Federal Lands Supplementary Requirements included in this Annex are intended to fulfil this condition for all Federal lands.

NOTES: The Standard Development Group acknowledges that this last statement does not accurately represent Draft 2 of the revised FSC US National Forest Stewardship Standard. However, it does represent the Standard Development Group's intent for the final approved revised standard.

Regardless of any changes to the Federal Land Supplementary Requirements, only US Forest Service, Department of Defense and Department of Energy lands will be eligible for FSC certification (plus federal lands that are currently certified), as these are the only agencies to have also addressed Condition #1 of the FSC US Federal Lands Policy.

CONSULTATION QUESTIONS:

The supplementary requirements for Federal Lands are considered necessary to address the

unique conditions associated with Federal lands, including ownership, history, mandate, and special resource management objectives. It is the intent of the Standard Development Group for the final, approved revised (Version 2) standard to include supplementary requirements that address this necessity for all Federal lands within the geographic scope of the standard (even though not all agencies will be eligible for FSC certification).

The Standard Development Group believes that even though harvest of timber may not be appropriate for all federal lands, FSC certification can be used to demonstrate responsible management of forested lands, including for the ecosystem services that they provide, and on which individuals and local communities depend.

To inform their intent, the Standard Development Group asked a number of targeted questions during the Draft 1 public consultation. Responses to these questions are more fully summarized in the Consultation Report, but include concerns that the Draft 1 Federal Land Supplementary Requirements did not address a number of issues associated with Bureau of Land Management and National Park Service lands. These issues are provided in the Consultation Report, along with suggestions as to where in the standard these issues could potentially be addressed.

During this public consultation, the Standard Development Group is requesting your help to better understanding these issues and if/how they should potentially be addressed in the standard. This feedback will be considered during development of Draft 3, along with input from a consultant, and additional inputs from targeted consultation with the Consultative Forum between Draft 2 and Draft 3. We encourage you to join the Consultative Forum if this topic is important to you (see the “Background Information” section to indicate your interest in joining the Consultative Forum).

Do the following issues need to be further addressed through new or revised Federal Land Supplementary Requirements? If yes, do you have specific location and/or language to recommend?

- mineral and oil exploration
- water storage and distribution facilities
- grazing
- wildlife management
- management of woodlands, mixed forest/desert ecosystems and habitats, and high desert ecosystems
- management of archaeological, paleontological, and historical sites
- robustness of management plans
- recreation
- scientific research
- cultural preservation
- public education
- inadequacy of the supplementary requirements for lands where commercial timber harvest and other commercial resource extraction would be absolutely inappropriate and controversial

- lack of constraints on other commercial uses when inappropriate and controversial
- lack of expectations for a “lighter touch” for timber harvest, chemical applications, road construction, salvage logging, and other management activities when inappropriate and controversial

Applicability

All elements of this Annex are considered normative additions to the Standard and are required by the *Certification Body** when judging conformance to any requirement in the Standard.

In some cases, ‘supplements’ to existing *Indicators**, Guidance, or Intent Statements have been elaborated. This is in an effort to simplify the interpretation, with the understanding that this Annex must be used alongside the FSC US National Forest Stewardship Standard. Where there are supplements, Federal land conformity assessments (certification audits) are to consider conformance with both the original text of the base *Indicator** (found in the body of the Standard, and including any regional supplementary requirements) as well as the supplement to that *Indicator** (found in this Annex). See also ‘Terminology’ section, below.

Scope

Land ownership: This formal Standard interpretation is currently applicable to National Forests managed by the USDA Forest Service for the citizens of the United States, in addition to lands managed by the Department of Defense and the Department of Energy, and Marsh-Billings-Rockefeller Historic National Park. It does not apply to other lands managed by other federal agencies, such as the Bureau of Land Management, until they have gained eligibility per the FSC US Federal Lands Policy.

Geographical extent: Consistent with the FSC US Standard, this interpretation pertains to Federal lands managed in the conterminous United States with the exclusion of Alaska, Hawaii and the US territories.

Landscape: “Landscape level” refers to a spatial scale larger and/or more inclusive than the federal lands comprising the *Management Unit**. Other federal, state and private lands may be interspersed within or neighboring the boundaries of the lands comprising the *Management Unit**.

Management Unit: For the purpose of Federal land certification, the ‘*Management Unit*’ is defined as a “National Forest” for lands managed by the USDA Forest Service, a “Field Office” for lands managed by the Bureau of Land Management, a “National Park” for lands managed by the National Park Service, and a similar level of administrative unit for other Federal lands. In cases where two or more National Forests are administered as one administrative unit (e.g., Chequamegon-Nicolet NF or Shasta-Trinity NF), then the administrative unit is the minimum unit eligible for certification. Individual Ranger Districts within a National Forest are not eligible for possible certification. Likewise, aggregations of National Forests not managed as one administrative unit (e.g., all of the National Forests in a Forest Service Region) cannot be considered a Management Unit.

Public: For Federal agencies, the ‘public’ is nationwide in scope and therefore consultations involving *interested stakeholders** are not limited to those entities located in proximity to the *Management Unit**.

Terminology

Throughout this Annex, the following terms are used:

- Federal Lands Supplement to Indicator x.x.x: Refers to text with which certified Federal lands are required to conform, in addition to the referenced base *Indicator**.
- Federal Lands Indicator x.x.x: Refers to an *Indicator** that has been added to a *Criterion** and that is applicable to Federal lands, but not to non-Federal lands
- Federal Lands Guidance for Indicator x.x.x: Refers to a guidance statement that corresponds to the referenced indicator and that is applicable to Federal lands, but not to non-Federal lands
- Federal Lands Intent for Indicator x.x.x: Refers to an intent statement that corresponds to the referenced indicator and that is applicable to Federal lands, but not to non-Federal lands

PRINCIPLE 1: COMPLIANCE WITH LAWS

***The Organization** shall comply with all applicable laws*, regulations, and nationally ratified international treaties, conventions, and agreements. (P1 P&C V4)**

FF Indicator Intent: *Indicators** that have been designated as ‘low risk’ for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

However, the *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as ‘not applicable’ for *family forest* Management Units**.

C1.1 *The Organization shall be a legally defined entity with clear, documented, and unchallenged legal registration*, with written authorization from the legally competent* authority for specific activities. (new)**

Indicator 1.1.1 *The Organization’s* legal registration with the *legally competent** authority is documented.**

Guidance: Evidence of “legal registration* with the legally competent* authority” may include registration with the relevant tax authority, incorporation papers for an LLC (i.e., Limited Liability Company), or a deed (i.e., for a private landowner).

C1.2 The Organization* shall demonstrate that the legal status* of the Management Unit*, including tenure* and use rights*, and its boundaries, are clearly defined. (C2.1 P&C V4)

Indicator 1.2.1 The Organization* has evidence of the legal status* and any long-term* use rights* associated with the Management Unit* .

FF Indicator 1.2.1 Low risk of non-conformance and if a non-conformance were to go undetected, there is a low risk* of negative impacts to social or environmental values due to the scale* of the Management Unit*.

Guidance: Evidence of “legal status* and long-term* rights*” may include: deeds; long-term* lease agreements; evidence of fee ownership; other legal documents that establish rights-of-way, etc.

Use rights* held by other parties may include: deed restrictions; long-term* leases; timber rights*; mineral rights*; rights* to harvest; conservation easements rights-of-way; non-timber forest* products (NTFP)* rights*; hunting and fishing rights*; and recreational uses.

Documents do not have to be made publicly available*.

Indicator 1.2.2 Boundaries of land ownership and use rights* are clearly identified on maps, and on the ground prior to commencing management activities* in proximity with the boundaries.

Intent: This Indicator* is not intended to evaluate measures taken to prevent trespass (e.g., marking property boundaries), which are addressed in Criterion 1.4 .

Guidance: Boundary designations do not necessarily have to be comprehensive, but must be adequate to assure that management activities* are implemented where intended. If the boundary is in dispute, then the manager shall postpone management activities* that are planned within the disputed zone or that may have a negative impact on the ownership or use rights* of others until the boundaries are established and marked either by legal* survey or by mutual agreement with the adjacent property owner (see also Criterion 1.4).

C1.3 The Organization* shall have legal* rights to operate in the Management Unit*, which fit the legal* status of The Organization* and of the Management Unit*, and shall comply with the associated legal* obligations in applicable national and local laws* and regulations and administrative requirements*. The legal* rights shall provide for harvest of products and/or supply of ecosystem services* from within the Management Unit*. The Organization* shall pay the legally prescribed charges associated with such rights* and obligations. (C1.1, 1.2, 1.3 P&C V4)

Indicator 1.3.1 The Organization* has evidence of its rights* to use and manage the Management Unit* for the purposes described in the management plan*, and these do not conflict with the legal registration* of The Organization* (per Indicator 1.1.1) or the legal status* or long-term* use rights* associated with the Management Unit* (per Indicator 1.2.1).

Guidance: For privately owned *management units** that are being managed by the landowner, the evidence for conformance may be the same as for Indicator 1.2.1. In other situations, a contractual agreement to manage the *forest** may provide evidence of conformance.

Indicator 1.3.2 The *management plan** and *management activities** demonstrate compliance with all *applicable laws**, including *national laws** and *local laws**.

Federal Lands Supplement to Indicator 1.3.1 Active legal challenges over management policies and actions are disclosed in the audit process to the extent allowed by courts of law.

Applicability: This *indicator** does not apply to activities that are not within the control of *The Organization**.

Guidance: The *management plan** or other documents provided to the CB should include a list of the key laws and *administrative requirements** that typically apply to management operations and a list of contact information for agencies that are responsible for local enforcement. Annex C lists laws that will be relevant to most *Management Units**, but is not a comprehensive list of all *applicable laws** for every *Management Unit**.

FF Guidance: For *family forest** *Management Units**, *The Organization** should be able to demonstrate knowledge of *applicable laws** through the *management activities**. A list of laws in the *management plan** is not required.

Federal Lands Guidance for **Indicator 1.3.1**: Examples of applicable laws and regulations are found in Annex C and the applicable Federal agency's manuals and handbooks and in the federal register. Federal law takes precedence over all other laws (i.e., supremacy clause). These include the Federal Land Policy and Management Act (FLPMA), the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA) and the USDA Forest Service 2012 Planning Rule.

Federal Lands Guidance for **Federal Lands Supplement to Indicator 1.3.1**: Ongoing legal challenges over management, including pre-decisional objections, administrative appeals, lawsuits, and judicial reviews, are examined during the certification process as they may be indications of non-conformance with the Standard; however, they do not alone constitute nonconformance (see also Criterion 1.6). While *Certification Bodies** are expected to exercise professional judgment about what legal compliance looks like on the ground, they are not expected to interpret laws or regulations when these are in question or being disputed; this is the responsibility of the court system.

Indicator 1.3.3 Situations in which compliance with *applicable laws** or regulations conflicts with compliance with *FSC Principles**, *Criteria**, or *Indicators** are documented and referred to the *Certification Body**.

Indicator 1.3.4 *The Organization** has evidence that all applicable and legally prescribed fees, royalties, taxes, and other charges are being paid in a timely manner or that *The Organization** is exempt from the applicable fee, taxes, etc.. If payment is beyond the control of *The Organization**, then there is evidence that every attempt at payment was made.

FF Indicator 1.3.3 Low risk of non-conformance and if a non-conformance were to go undetected, there is a low *risk** of negative impacts to social or environmental values due to the *scale** and management *intensity** of the *Management Unit**.

Intent: Taxes and fees at minimum include, as applicable: *local** and/or county property taxes; severance taxes.

Guidance: Compliance may be verified through: a document that includes a list of taxes, fees, and other charges that typically apply; an annual summary of payments; a signed statement from *The Organization** that all payments are paid on a timely basis.

Indicator 1.3.5 When *non-timber forest products** are intended for human or animal consumption, *The Organization** complies with all applicable *legal** and *administrative requirements** for hygiene and food safety.

C1.4 The *Organization** shall develop and implement measures, and/or shall engage with regulatory agencies, to systematically protect the *Management Unit** from unauthorized or illegal resource use, settlement, and other illegal activities. (C1.5 P&C V4)

Intent: “Unauthorized resource use” may include: hunting; fishing; collecting; theft; dumping; and prohibited recreational use, including motorized vehicle use on closed roads, closed trails, and closed off-trail areas.

Indicator 1.4.1 *The Organization** implements strategies intended to prevent illegal and unauthorized activities on the *Management Unit**.

FF Indicator 1.4.1 Low *risk** of non-conformance, and if a non-conformance were to go undetected, there is a low *risk** of negative impacts to social or environmental values due to the *scale** of the *Management Unit**.

Applicability: *The Organization** is not expected to play a law enforcement role, but is expected to not ignore illegal activities on the *Management Unit**.

Guidance: Strategies to prevent illegal and unauthorized activities may include, but are not limited to: clear marking of boundaries; appropriate signage and gates; communications with *forest** users, *local community** members, and other *stakeholders**; and reporting suspected illegal or unauthorized activities to the proper authorities.

Monitoring and preventative actions should be proportionate to and guided by the nature of the property and risk of specific types of activities.

Federal Lands Applicability for **Indicator 1.4.1**: *The Organization** is expected to play a law enforcement role as mandated by applicable rules, orders and regulations.

Indicator 1.4.2 If illegal or unauthorized activities occur, *The Organization** implements strategies designed to curtail such activities and correct the situation to the extent possible for meeting all *management objectives** with consideration of available resources.

FF Indicator 1.4.2 On private ownerships, *low risk** of non-conformance, and if a non-conformance were to go undetected, there is a *low risk** of negative impacts to social or environmental values due to the *scale** of the *Management Unit**.

Guidance: Efforts to stop illegal or unauthorized activities may include but are not limited to: cooperating with the appropriate authorities; notifying perpetrators and stakeholders; posting boundary notices; using gates; making periodic inspections; and reporting suspected illegal or unauthorized activities to the proper authorities.

Where protection is the responsibility of regulatory bodies, *The Organization** should cooperate with the applicable entity to identify, report, control, and discourage unauthorized or illegal activities. Not implementing any *legal** action may be appropriate if the proper authorities have been notified and *The Organization** demonstrates that *legal** action may have negative consequences that outweigh its benefit, or if *legal** action is not possible.

FF Indicator Applicability: Not *low risk** for public ownerships, which are expected to demonstrate conformance with the base indicator.

Federal Lands Guidance for Indicator 1.4.2: Examples of such strategies include: deploying law enforcement; establishing and enforcing unauthorized use policies; taking measures to inform unauthorized users about closures; *engaging** in effective outreach and communications with user groups; and fostering collaborative efforts with organizations that promote ecologically, economically and socially responsible public use.

C1.5 *The Organization shall comply with the applicable *national laws**, *local laws**, *ratified** international conventions, and *obligatory codes of practice**, relating to the transportation and trade of forest products within and from the *Management Unit**, and/or up to the point of first sale. (C1.3 P&C V4)**

Indicator 1.5.1 The *management plan** and management activities* comply with relevant provisions of all applicable *national laws**, *local laws**, international laws and binding international agreements relating to the transportation and trade of *forest** products.

FF Indicator 1.5.1 *Low risk** of non-conformance, and if a non-conformance were to go undetected, there is a *low risk** of negative impacts to social or environmental values due to the *scale** and management *intensity** of the *Management Unit**.

Guidance: *The Organization** may demonstrate compliance by maintaining a list of applicable binding international agreements and completing an assessment to confirm compliance. A list of relevant laws, treaties, and agreements can be found in Annex C. Examples of potentially *applicable laws** and agreements include the Lacey Act, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), other international conventions. An international agreement is considered “binding” when the US has formally signed the agreement.

C1.6 *The Organization shall identify, prevent and resolve *disputes** over issues of statutory or *customary law**, which can be settled out of court in a timely manner, through *engagement** with *affected stakeholders**. (C2.3 P&C V4)**

Intent: The *Indicators** of Criterion 1.6 provide the common *Indicators** used for managing and addressing *disputes** throughout this Standard. Parenthetical *Criterion** references identify where language is only applicable to a specific *Criterion**. Annex D provides the framework of the *dispute** management system employed in this Standard, describes FSC's approach to *dispute** management more generally, and provides additional expectations for the *dispute** resolution process—the core component of this *dispute** management system.

*Complaints**, more generally, are not specifically addressed in either the *Indicators** of Criterion 1.6 or Annex D. In this Standard, however, *complaints** may naturally evolve to a *dispute** when initial attempts to resolve a *complaint** have been unsuccessful.

This framework is intended to provide parties with an avenue to manage *dispute** resolution in *good faith** and outside of court. However, if *good faith** is exhausted and the parties have not agreed on a resolution, *The Organization's** dispute resolution responsibility ends. The party bringing the *dispute** then has the option of either discontinuing their pursuit of the *dispute** or pursuing via other avenues, as described in Annex D*.

FF Indicator Intent: Working to resolve *disputes** is essential, regardless of the *scale** or *intensity** of the *Management Unit**. However, conformance with Indicators 1.6.2 and 1.6.3 should be sufficient for ensuring that the core intent of this Criterion is addressed for *family forest Management Units**.

Indicator 1.6.1 A system is in place to receive *disputes** related to:

- a. *applicable laws** (per Criterion 1.6);
- b. *disputes** from *employees** and *independent contractors** (per Criterion 2.6);
- c. *disputes** resulting from violations of *rights** held by *Native American Indigenous Peoples** (per Criterion 3.2); and
- d. impact of *management activities** on affected *local communities** and other *affected stakeholders** (per Criterion 4.6)

FF Indicator 1.6.1 Not applicable for *family forest Management Units**. Conformance with Criterion 1.6 for *family forest Management Units** is addressed through FF Indicator 1.6.2 and FF Indicator 1.6.3.

Indicator 1.6.2 The Organization has a *dispute** resolution process that is used to resolve *disputes** that can be settled out of court in a timely manner, and that:

- a. can be adapted for *culturally appropriate engagement** with *dispute** submitters,
- b. is adapted through *engagement** with *employees** or *independent contractors** for *disputes** raised by *employees** or *independent contractors** as applicable (per Criterion 2.6) and through *engagement** with *local communities** for *disputes** raised by affected *local communities** (per Criterion 4.6)
- c. identifies mechanisms to address *disputes of substantial magnitude**, that occur during the *dispute** resolution process, including provisions for ceasing operations.

FF Indicator 1.6.2 *The Organization** seeks to resolve *disputes** out of court and in a timely manner.

Federal Lands Supplement1 to Indicator 1.6.2 Information on the system for resolving disputes is readily available to interested local, regional and national stakeholders, without the need to specifically request it.

Federal Lands Supplement2 to Indicator 1.6.2 For disputes that have led to legal challenges, *The Organization** demonstrates that it has been or is actively engaged with stakeholders in an attempt to resolve the dispute, unless this engagement is legally prohibited.

Federal Lands Guidance for **Indicator 1.6.2**: Compensation and mitigation measures are determined with consideration of any applicable administrative or judicial ruling consistent with federal government claims processes.

Indicator 1.6.3 An up-to-date record of *disputes** is maintained and includes:

- a. steps taken to resolve *disputes**;
- b. outcomes of *dispute** resolution processes, including, where applicable,
 - i. *fair compensation** to *employees** or *independent contractors** for loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization** (per Criterion 2.6)
 - ii. *fair compensation** to *Native American* Indigenous Peoples** for violations of *rights** that they hold (per Criterion 3.2)
 - iii. *fair compensation** to affected *local communities**, and *affected stakeholders** (per Criterion 4.6); and
- c. unresolved *disputes** and the reason(s) they are not resolved.

FF Indicator 1.6.3 *The Organization** documents *disputes** that have occurred and the steps taken to resolve them.

Indicator 1.6.4 *The Organization** prevents or identifies and resolves *disputes** in a manner consistent with the *dispute** management framework outlined in Annex D.

FF Indicator 1.6.4 Not applicable for *family forest* Management Units*. Conformance with Criterion 1.6 for *family forest* Management Units** is addressed through FF Indicator 1.6.2 and FF Indicator 1.6.3.

C1.7 *The Organization** shall publicize a commitment not to offer or receive bribes in money or any other form of corruption, and shall comply with anti-corruption legislation where this exists. In the absence of anti-corruption legislation, *The Organization** shall implement other anti-corruption measures proportionate to the *scale** and *intensity** of management activities and the *risk** of corruption. (new)

Indicator 1.7.1 *The Organization** has and adheres to a *publicly available** policy that meets or exceeds *applicable laws** regarding bribery and anti-corruption.

FF Indicator 1.7.1 *The Organization** complies with *applicable laws** regarding bribery and anti-corruption.

C1.8 *The Organization** shall demonstrate a *long-term** commitment to adhere to the **FSC Principles*** and **Criteria*** in the *Management Unit**, and to related FSC Policies and Standards. A statement of this commitment shall be contained in a *publicly available** document made freely available. (C1.6 P&C V4)

Indicator 1.8.1 *The Organization** demonstrates a *long-term** commitment to adhere to the FSC *Principles** and *Criteria** and FSC and FSC US policies, and has a *publicly available** statement of commitment to manage the *Management Unit** in conformance with FSC standards and policies.

FF Indicator 1.8.1 *The Organization** demonstrates a *long-term** commitment to adhere to the FSC *Principles** and *Criteria** and related FSC and FSC US policies.

FF Indicator Guidance: Demonstration of commitment may be informal.

Federal Lands Supplement to Indicator 1.8.1 The statement of long-term commitment is endorsed by the chief administrator at the national level of the applicable Federal agency.

Indicator 1.8.2 *The Organization** notifies the *Certification Body** of significant changes in ownership and/or significant changes in management planning within 90 days of such change.

FF Indicator 1.8.2 *The Organization** notifies the *Certification Body** of significant changes in ownership, the certified land base and/or significant changes in management planning prior to the next scheduled annual audit, or within one year after such change, whichever comes first.

Intent: The purpose of the *Indicator** is to ensure that changes to the land area that are included in the certificate are communicated to the *Certification Body**. This includes changes in group membership as well as additions or excisions within individual ownerships.

Guidance: The determination of what is a significant change is to be verified by the *Certification Body**.

PRINCIPLE 2: WORKERS* RIGHTS AND EMPLOYMENT CONDITIONS

***The Organization** shall maintain or enhance the social and economic wellbeing of workers*. (new)**

Guidance: The definitions of “*worker**,” “*employee**,” “*independent contractor***” and “*contractor employee***” are integral to accurate interpretation of the Principle 2 *Criteria** and *Indicators**.

When *The Organization** contracts with *independent contractors** to implement *management activities**, *The Organization** should consider including contract language which ensures that the *independent contractor** will respond to questions and requests for information from

*Certification Bodies** and allow *contractor employees** to be interviewed by *Certification Bodies**.

In some situations, oversight for conformance to Principle 2 *indicators** by *independent contractors** and *contractor employees** may not be possible for *The Organization** due to the independent *legal status** of the *independent contractor**. However, for indicators that apply to all *workers**, to *independent contractors** and/or to *contractor employees** it will still be the responsibility of *The Organization** to provide evidence of conformance by these individuals.

Therefore, *The Organization** may choose to use *independent contractors** that have been verified by a non-FSC third-party certification scheme as part of the evidence of conformance to some or all Principle 2 *indicators**, as long as the *independent contractor** is able to provide the *Certification Body** with evidence that the certification scheme addresses the applicable elements of the *Indicator(s)**. Group Managers may also choose to include in their group (per FSC-STD-30-005, FSC Forest Management Group Standard) *independent contractors** who demonstrate conformance with Principle 2 *indicators**. If *The Organization** chooses this pathway, the certification scheme must be directly applicable to *independent contractors** and indirectly applicable to *contractor employees**.

C2.1 *The Organization shall uphold* the principles and rights at work as defined in the ILO Declaration on Fundamental Principles and Rights at Work* (1998) based on the eight ILO Core* Labour Conventions. (C4.3 P&C4)**

Applicability: The *Indicators** of Criterion 2.1 apply to all *workers**.

Guidance: Adherence to *national laws** and *local laws** by *The Organization** and *independent contractors** will result in conformance with the indicators of Criterion 2.1.

FF Indicators for Criterion 2.1 All indicators in this *Criterion** have a low risk of non-conformance for *family forest* Management Units** due to the *scale** and management *intensity** of *family forest* Management Units**, which normally result in very few *workers**.

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

Indicator 2.1.1 *The Organization does not use child labor*.**

Guidance: Means of verification include:

- *The Organization** and *independent contractors** do not employ *individuals* below the minimum ages established under *national laws** or *local laws**, including minimum ages when established for specific types of work such as *hazardous** work.
- Where *applicable laws** permit the employment of individuals younger than the threshold established by compulsory education laws, such employment does not

interfere with schooling nor is harmful to their health or development.

Indicator 2.1.2 *The Organization** eliminates all forms of *forced or compulsory labor**.

Intent: Employment relationships maintained by *The Organization** and by *independent contractors** are voluntary and based on mutual consent, without threat of a penalty.

Applicability: "*Forced or compulsory labor**" excludes any work or service exacted from any person as a consequence of a conviction in a court of law (i.e., prison labor), as long the labor is enforced by a public authority, and provided the labor is performed voluntarily and not under the menace of any penalty.

Indicator 2.1.3 *The Organization** ensures that there is no *discrimination** in *employment and occupation**.

Intent: *Employment and occupation** practices implemented by *The Organization** and *independent contractors** are non-discriminatory.

Indicator 2.1.4 *The Organization** respects freedom of association and the right to *collective bargaining**.

Guidance: Means of verification include:

- *Employees** and *contractor employees** are able to establish or join *worker organizations** in accordance with applicable *laws**.
- *Employees** and *contractor employees** are able to engage in lawful activities related to forming, joining, or assisting a *workers' organization**, or to refrain from doing the same, and *The Organization** and *independent contractors** do not discriminate or punish *employees** or *contractor employees** for exercising these *legal** rights.
- *The Organization** and *independent contractors** negotiate with lawfully established *workers' organizations** and/or duly selected representatives in *good faith** and with the best efforts to reach *collective bargaining** agreements.
- *Collective bargaining** agreements are implemented where they exist.

C2.2 *The Organization** shall promote gender equality in employment practices, training opportunities, awarding of contracts, processes of *engagement**, and management activities. (new)

Applicability: Indicator 2.2.1 applies to activities that are implemented by the *employees** of *The Organization**. The remaining *indicators** of Criterion 2.2 apply directly to the employees of *The Organization**.

FF Indicator Intent: *Gender equity** is essential in all aspects of employment, regardless of the *scale** or *intensity** of the *Management Unit**. However, conformance with FF Indicator 2.2.1

should be sufficient for ensuring that the core intent of this Criterion is addressed for *family forest* Management Units**.

The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest* Management Units**.

Indicator 2.2.1 Systems are implemented that promote *gender equity** and prevent gender *discrimination** in employment practices, training opportunities, awarding of contracts, processes of *engagement**, and implementation of *management activities**.

FF Indicator 2.2.1 *The Organization** describes and implements measures to avoid *discrimination** based on *gender identity** in employment practices, training opportunities, awarding of contracts, processes of *engagement**, and implementation of *management activities**.

Guidance: "Processes of *engagement**" is in reference to the various expectations of *engagement** with *stakeholders** and others that are included in the *Indicators** of this Standard.

Indicator 2.2.2 Parental leave practices follow applicable *national laws** and *local laws**.

FF Indicator 2.2.2 Not applicable for *family forest* Management Units**. Conformance with Criterion 2.2 for *family forest* Management Units** is addressed through FF Indicator 2.2.1.

Indicator 2.2.3 Active participation of individuals of all gender identities in all levels of employment and decision-making is encouraged and supported.

FF Indicator 2.2.3 Not applicable for *family forest* Management Units**. Conformance with Criterion 2.2 for *family forest* Management Units** is addressed through FF Indicator 2.2.1.

Indicator 2.2.4 Confidential and effective mechanisms for reporting and eliminating cases of sexual harassment and *discrimination** based on gender, gender identity, marital status, familial status, parenthood, or sexual orientation are documented and readily available.

FF Indicator 2.2.4 Not applicable for *family forest* Management Units**. Conformance with Criterion 2.2 for *family forest* Management Units** is addressed through FF Indicator 2.2.1.

Indicator 2.2.5 Individuals of all gender identities of the same qualifications, skills, level of performance, and experience are paid the same wage when they do the same work.

FF Indicator 2.2.5 (New) Not applicable for *family forest* Management Units**. Conformance with Criterion 2.2 for *family forest* Management Units** is addressed through FF Indicator 2.2.1.

C2.3 *The Organization shall implement health and safety practices to protect *workers** from occupational safety and health hazards. These practices shall, proportionate to *scale, intensity, and risk* of management activities**, meet or exceed the recommendations of the ILO Code of Practice on Safety and Health in Forestry Work. (C4.2 P&C V4)**

Applicability: Indicators 2.3.1 and 2.3.2 apply to the *employees** of *The Organization**. Indicators 2.3.3, 2.3.4, and 2.3.5 apply to *independent contractors** and *contractor employees**.

Indicator 2.3.1 *The Organization** meets or exceeds all applicable *national laws** and *local laws** covering health and safety of *employees** (including those identified per Annex C).

FF Indicator 2.3.1 Low risk of non-conformance due to the *scale** and management *intensity** of the *Management Unit**, which normally results in very few *workers**.

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

Indicator 2.3.2 *The Organization** develops, maintains, and implements an effective safety program, as demonstrated by safe *employee** habits.

FF Indicator 2.3.2 Employees of *The Organization** demonstrate safe worker* habits. Contractors and their employees comply with contract stipulations regarding safety requirements.

Federal Lands Supplement to Indicator 2.3.2 *The Organization** develops and implements procedures for monitoring safe working conditions, and includes procedures for interviewing *workers** in a non-threatening environment (for example, away from supervisors), using a language the *workers** understand.

Guidance: Evaluation of conformance to this *Indicator** may be through interviews and observations and may be demonstrated by the following: operations have consistently low accident rates; training sessions are offered/attended; safety procedures and documentation are posted in the workplace; inexperienced field *employees** are given adequate instructions and supervision; *employees** utilize personal protective equipment; *The Organization** maintains safety-training records; machinery and equipment are well maintained and in safe working order.

Indicator 2.3.3 Contracts and other written agreements include safety requirements for *independent contractors** and *contractor employees**.

Indicator 2.3.4 *The Organization** contracts with *independent contractors** that meet or exceed all applicable *national laws** and *local laws** covering health and safety of *contractor employees**.

Guidance: Part of the evidence of conformance to this indicator may be use of *independent contractors** that have been verified by a non-FSC third-party certification scheme as long as the *independent contractor** is able to provide the *Certification Body** with evidence that the certification scheme addresses the particular elements of this *Indicator**.

Other sources of evidence may include interviews with *contractor employees**, the Experience Modification Rate of the *independent contractor**, observations in the field by the *Certification Body**, or other information provided by the *independent contractor**.

Indicator 2.3.5 *The Organization** contracts with *independent contractors** that develop, maintain, and implement an effective safety program, as demonstrated by safe *independent contractor** and *contractor employee** habits.

Guidance: Part of the evidence of conformance to this indicator may be use of *independent contractors** that have been verified by a non-FSC third-party certification scheme as long as the *independent contractor** is able to provide the *Certification Body** with evidence that the certification scheme addresses the particular elements of this *Indicator**.

Other sources of evidence may include interviews with *contractor employees**, the Experience Modification Rate of the *independent contractor**, observations in the field by the *Certification Body**, or other information provided by the *independent contractor**.

C2.4 *The Organization** shall pay wages that meet or exceed minimum *forest** industry standards or other recognized *forest** industry wage agreements or *living wages**, where these are higher than the *legal** minimum wages. When none of these exist, *The Organization** shall, through *engagement** with *workers**, develop mechanisms for determining *living wages**. (new)

Applicability: Indicators 2.4.1 and 2.4.2 apply to the *employees** of *The Organization**. Indicators 2.4.3, 2.4.4, and 2.4.5 apply to *independent contractors** and *contractor employees**.

FF Indicators for Criterion 2.4 All indicators in this *Criterion** have a low risk of non-conformance for *family forest* Management Units** due to the *scale** and management *intensity** of *family forest* Management Units**, which normally result in very few *workers**.

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

TARGETED CONSULTATION QUESTION: The Standard Development Group has introduced the concept of "living wage" into Criterion 2.4 and has added the following definition to the glossary in Annex A, "The remuneration received for a standard work week by a worker* in a particular place sufficient to afford a decent standard of living for the worker*"

and the worker's* family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events." *Do you have suggestions for how provision of a living wage could be audited for Indicator 2.4.1 and/or Indicator 2.4.3?*

Indicator 2.4.1 *Employee** compensation meets or exceeds the prevailing *living wage** within the forestry industry.

Guidance: "Compensation" includes salary or wages, and benefits.

Indicator 2.4.2 *Employee** salaries and wages are paid on time.

Indicator 2.4.3 *The Organization** negotiates contracts in *good faith**, and considers the investment in equipment of the *independent contractor**, the cost to provide a *living wage** to *contractor employees**, and other factors including economic inflation, remoteness of the work site, and difficulty of the work.

Guidance: Means of verification include mechanisms created with engagement of *independent contractors** that determine a *living wage** for the applicable region.

Indicator 2.4.4 *The Organization** contracts with *independent contractors** that enhance *contractor employee** well-being through provision of working conditions (e.g., wages, benefits, and opportunities).

Guidance: Means of verification include certification with a third-party scheme, and interviews with *contractor employees**.

Indicator 2.4.5 Contracts are paid on time

Guidance: Means of verification include interviews with *independent contractors**.

C2.5 *The Organization** shall demonstrate that *workers** have job-specific training and supervision to safely and effectively implement the *management plan** and all *management activities**. (C7.3 P&C V4)

Intent: The *Indicators** of Criterion 2.5 apply to all *workers**.

Indicator 2.5.1 *Workers** are qualified to properly implement the *management plan**; *workers** are provided with sufficient guidance, training (consistent with Annex E), adequate resources, and supervision to adequately implement their respective components of the plan.

FF Indicator 2.5.1 *Management activities** are implemented by *workers** who are able to demonstrate knowledge of the *management objectives** and *applicable laws**.

Guidance: Additional guidance is provided in Annex E.

Indicator 2.5.2 *The Organization** and *independent contractors** maintain up-to-date training records.

Guidance: While *The Organization** may not legally be able to review an *independent contractor's** training records, these records will need to be available to the *Certification Body**.

C2.6 *The Organization**, through *engagement** with *workers**, shall have mechanisms for resolving grievances and for providing *fair compensation** to *workers** for loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization**. (new)

Intent: Annex D provides background on the framework of the *dispute** management system employed in this Standard and provides guidance for *Organizations**. Conformance with the indicators of Criterion 1.6 will demonstrate that *disputes** from *employees** and *independent contractors** are received and addressed by *The Organization**.

Applicability: Indicator 2.6.1 applies to the *employees** of *The Organization**. Indicators 2.6.2, 2.6.3, and 2.6.4 apply to *independent contractors** and *contractor employees**.

Indicator 2.6.1 *Employees** are covered by Workers' Compensation insurance.

Indicator 2.6.2 *The Organization** contracts with *independent contractors** that have a dispute resolution process for *disputes** raised by *contractor employees**.

Indicator 2.6.3 *The Organization** contracts with *independent contractors** that carry Workers' Compensation insurance for *contractor employees**.

Indicator 2.6.4 When *The Organization** contracts with *Independent contractors** who do not have *contractor employees**, but hire sub-contractors to implement *management activities** for *The Organization**, the sub-contracting is done legally, and is not used by the *independent contractor** to avoid Workers Compensation *legal** responsibilities.

Intent: Not all states require *The Organization** to maintain *worker's** compensation insurance and some states have exemptions that may exclude *forest* workers** from coverage. This *Indicator** is intended to address both states that do require coverage for *forest* workers** and those that do not.

Guidance: In states where there is a high rate of Workers Compensation Insurance avoidance, *The Organization** should be aware that work-arounds through the use of sub-contractors may be prevalent.

PRINCIPLE 3: INDIGENOUS PEOPLES’* RIGHTS*

***The Organization** shall identify and uphold* *Indigenous Peoples** legal* and customary rights* of ownership, use, and management of land, territories*, and resources affected by management activities*. (P3 P&C V4)**

Guidance: The definition of “*customary rights**” is integral to accurate interpretation of the Principle 3 indicators.

C3.1 *The Organization shall identify the *Indigenous Peoples** that exist within the *Management Unit** or those that are affected by *management activities**. *The Organization** shall then, through *engagement** with these *Indigenous Peoples**, identify their *rights* of tenure**, their *rights* of access to and use of forest* resources and ecosystem services**, their *customary rights**, and *legal** rights and obligations that apply within the *Management Unit**. *The Organization** shall also identify areas where these *rights** are contested. (new)**

Indicator 3.1.1 *The Organization**, through FSC US, identifies *Native American* Indigenous Peoples** that may be affected by *management activities** associated with the *Management Unit**. Identification of these *Indigenous Peoples** should be revisited as part of the review of the *management plan**.

Applicability: In regions where there are no *Native American* Indigenous Peoples** identified per Indicator 3.1.1, this Criterion* may be inapplicable and the landowner or manager should provide documentation to this effect.

Intent: FSC US will identify *Native American* Indigenous Peoples** that may be affected by management activities* on FSC-certified *management units**. Through *culturally appropriate** engagement, FSC US will work with these *Indigenous Peoples** to determine for which *Management Units** they have interests and would like to provide input regarding *management activities**, in addition to identification of the best contact(s) for *The Organization** to use for their *engagement** with these *Indigenous Peoples**. FSC US will share applicable portions of this information with *The Organization**, upon request. Consultation with FSC US by *The Organization** is sufficient for conformance with Indicator 3.1.1.

These efforts by FSC US are not intended to eliminate or replace any relationships already developed between *The Organization** and *Native American* Indigenous Peoples**.

Guidance: The identification of *Native American* Indigenous Peoples** should include tribes previously removed from the area. Lands ceded to the US Government may be identified using the US Forest Service’s Tribal Connections Viewer:
<https://usfs.maps.arcgis.com/apps/webappviewer/index.html?id=fe311f69cb1d43558227d73bc34f3a32>

Indicator 3.1.2 Per Annex F and through *culturally appropriate* engagement**, *The Organization** identifies and documents *legal** and/or *customary rights**, including contested

*rights**, applicable to the *Management Unit** that are held by the *Native American* Indigenous Peoples** identified per Indicator 3.1.1.

FF Indicator 3.1.2 *The Organization** identifies *rights** held by *Native American* Indigenous Peoples** identified per FF Indicator 3.1.1 by using the resources identified in Annex F and then confirms the identified *rights** through *culturally appropriate* engagement** with the applicable *Native American* Indigenous Peoples**. The assessment and the *engagement** may be informal.

Guidance: *Legal** rights include treaty rights. For a *right** to be considered “contested,” the complainant should have already taken formal steps to have their *rights** recognized, including filing *legal** documents in court.

Direct, *culturally appropriate* engagement** with *Native American* Indigenous Peoples** is the first preferred method to identify *rights**. If this is not possible, then regional databases, experts* or references that contain relevant data may be used to compile this information.

C3.2 *The Organization** shall recognize and *uphold** the *legal** and *customary rights** of *Indigenous Peoples** to maintain control over *management activities** within or related to the *Management Unit** to the extent necessary to protect their *rights**, resources, and *lands and territories**. Delegation by *Indigenous Peoples** of control over *management activities** to third parties requires *Free, Prior, and Informed Consent**. (C3.1 and 3.2 P&C V4)

FF Indicator Intent: Respecting *rights** held by *Native American** groups is essential, regardless of the *scale** or *intensity** of the *Management Unit**. However, conformance with Indicators 3.2.2 and 3.2.3 should be sufficient for ensuring that *rights** are respected on *family forest* Management Units**.

The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as ‘not applicable’ for *family forest* Management Units**.

Indicator 3.2.1 *Native American* Indigenous Peoples** identified per Indicator 3.1.1 are *engaged** during *management plan** development and revision to promote protection of their *rights**, and to provide input into *management activities** that may affect resources and *lands and territories** in which they have an interest, but for which they do not hold *rights**.

FF Indicator 3.2.1 Not applicable for *family forest* Management Units**. Conformance with Criterion 3.2 for *family forest* Management Units** is addressed through Indicators 3.2.2 and 3.2.3.

Intent: The purpose of the *Indicator** is to ensure proactive engagement with *Native American* Indigenous Peoples** as *management activities** are being planned. The reference to Indicator 3.1.1 reflects that this *indicator** is intended to apply to all *Native American* Indigenous Peoples** that may be affected by *management activities** and is not limited to only those

Indigenous Peoples with legal* or customary rights*.*

Indicator 3.2.2 Per Annex F, when *management activities** may affect *rights** identified per Indicator 3.1.2, *The Organization* engages** through *culturally appropriate** means in a *Free, Prior, and Informed Consent** process with the *Native American* Indigenous Peoples** and does not implement the *management activities** until consent has been received from the *rightsholder**. If the *rightsholder** does not *engage** in a *Free, Prior, and Informed Consent** (FPIC) process, *The Organization** upholds the *rights** in question as *management activities** are implemented and documents the actions taken to achieve this.

Federal Lands Supplement to Indicator 3.2.2 Pertinent staff of the applicable Federal agency demonstrate knowledge and implement effective tribal consultation and relationship-building methods with *Native American** groups.

Indicator 3.2.3 Where evidence exists that *rights** of *Native American* Indigenous Peoples** have been violated through implementation of *management activities** by *The Organization**, the situation is corrected through *engagement** and, if necessary, through conformance with the *Indicators** of Criterion 1.6.

FF Guidance: If the indicators of Criterion 1.6 are necessary, conformance is only required for those applicable to *family forest* management units**.

Indicator 3.2.4 Where consent has not yet been received from the *rightsholder**, *The Organization** and the *rightsholder** are *engaged** in a mutually agreed-upon *Free, Prior, and Informed Consent** process that is advancing in *good faith** and with which the *rightsholder** is satisfied. If the *rightsholder** ends engagement in a *Free, Prior, and Informed Consent** process prior to granting consent, *The Organization** upholds the *rights** in question as *management activities** are implemented and documents the actions taken to achieve this.

FF Indicator 3.2.4 Not applicable for *family forest* Management Units**. Conformance with Criterion 3.2 for *family forest* Management Units** is addressed through Indicators 3.2.2 and 3.2.3.

Indicator 3.2.5 *Tribal* forest* management planning** and implementation are carried out by an authorized *tribal** representative in accordance with *tribal** laws and customs and relevant federal laws.

Applicability: This indicator applies to *tribal** lands that are FSC certified.

C3.3 In the event of delegation of control over *management activities**, a *binding agreement** between *The Organization** and the *Indigenous Peoples** shall be concluded through *Free, Prior, and Informed Consent**. The agreement shall define its duration, provisions for renegotiation, renewal, termination, economic conditions, and other terms and conditions. The agreement shall make provision for monitoring by *Indigenous Peoples** of *The Organization**'s compliance with its terms and conditions. (new)

Indicator 3.3.1 Where control over *management activities** has been granted through *Free, Prior, and Informed Consent** based on *culturally appropriate** *engagement**, an agreement contains the duration, provisions for renegotiation, renewal, termination, economic conditions and other terms and conditions. The agreement may be made orally or in writing at the discretion of the *Indigenous Peoples**. Records of agreements are maintained.

Indicator 3.3.2 When *Free, Prior, and Informed Consent** is granted by a *Native American** *Indigenous Peoples**, they are provided with an opportunity to monitor *The Organization's** compliance with the agreement made per Indicator 3.3.1.

Guidance: What monitoring will be implemented and how the *rightsholder** will be engaged in the monitoring should be addressed as part of the *engagement** that occurs during the *Free, Prior, and Informed Consent** process.

C3.4 *The Organization** shall recognize and *uphold** the *rights**, customs, and culture of *Indigenous Peoples** as defined in the United Nations Declaration on the Rights of Indigenous Peoples (2007) and ILO Convention 169 (1989). (C3.2 P&C V4)

*The elements of the Criterion** are addressed through all of the other *Indicators** of this *Principle** and through all of the *Indicators** of *Principle 9* as they pertain to certain High Conservation Values* (i.e., HCV 5* and HCV 6*). Therefore, no *Indicators** are included here.

C3.5 *The Organization**, through *engagement** with *Indigenous Peoples**, shall identify sites which are of special cultural, ecological, economic, religious, or spiritual significance and for which these *Indigenous Peoples** hold *legal** or *customary rights**. These sites shall be recognized by *The Organization** and their management, and/or *protection** shall be agreed through *engagement** with these *Indigenous Peoples**. (C3.3 P&C V4)

Intent: The intent of the *Indicators** in this *Criterion** is to (per Indicator 3.5.1) proactively identify sites of special significance for which *Native American** *Indigenous Peoples** hold *rights** and (per Indicator 3.5.2) implement protective measures for those sites, even if there are not any plans for *management activities** that could have a negative impact on the sites. However, if/when *management activities** are planned that may negatively affect these sites, per Indicator 3.2.2, *The Organization** must *engage** in a *Free, Prior, and Informed Consent** process with the *Native American** *Indigenous Peoples** that holds the *rights** and may not implement the *management activities** until consent has been received from those *Indigenous Peoples**.

Applicability: These *Indicators** only apply to sites for which *Native American** *Indigenous Peoples** hold *legal** and/or *customary rights**. Engagement with *Native American** *Indigenous Peoples** regarding protection of significant sites for which they do not hold *legal** or *customary rights** is addressed through Indicator 3.2.1, and Principle 9 (i.e., HCV 6).

Guidance: Prior to *engagement**, *The Organization** may not have a full understanding of the extent, sensitivity, or other details regarding sites of significance for which *Native American* Indigenous Peoples** hold rights. Therefore, *engagement** with the *rightsholder** is critical and it is not adequate to simply buffer an area without attempting to *engage** with the *rightsholder**. Indicator 3.5.2's Guidance addresses situations where the *rightsholder** does not wish to *engage**.

Indicator 3.5.1 *The Organization**, through *engagement** with the *Native American* Indigenous Peoples** identified per Indicator 3.1.1 and use of other sources of *Best Available Information**, identifies sites of special cultural, ecological, economic, religious, or spiritual significance and for which these *Native American* Indigenous Peoples** hold *legal** and/or *customary rights**.

FF Indicator 3.5.1 *The Organization** maintains a list of sites of current or traditional cultural, archeological, ecological, economic or religious significance that have been identified on the *Management Unit** by state conservation agencies and/or *tribal** governments and that could be impacted by *management activities**.

Applicability: In regions where there are no *Native American* Indigenous Peoples** identified per Indicator 3.1.1, this *Criterion** may be inapplicable and the landowner or manager should provide documentation to this effect.

Guidance: Examples of "sites of special cultural, ecological, economic, religious, or spiritual significance" may include but are not limited to: ceremonial, burial, or village sites; areas used for hunting, fishing, or trapping; current areas for gathering culturally important materials (e.g., ingredients for baskets, medicinal plants, or plant materials used in dances or other ceremonies); and current areas for gathering subsistence materials (e.g., mushrooms, berries, acorns, etc.) and/or culturally and/or economically important materials.

Direct, *culturally appropriate** *engagement** with *Native American* Indigenous Peoples** is the first preferred method to identify sites of special significance. If this is not possible, then regional databases, experts* or references that contain relevant data may be used to compile this information.

FF Indicator Applicability: Where state *conservation** agencies and tribal governments are not able to provide a list of sites, *The Organization** should rely on its own knowledge, and *engagement* conducted per Criterion 3.1.

FF Indicator Guidance: Direct consultation with *tribal** representatives is not required in order to identify or develop the list of sites (or document that there aren't any). If sites do exist on the *Management Unit** then *The Organization** must invite input from *tribal** representatives per FF Indicator 3.5.2. Criterion 3.2 and Criterion 3.3 may also apply.

Indicator 3.5.2 Through *engagement** with the *rightsholders**, *The Organization** develops, documents, and implements measures to protect or enhance sites of special significance identified per Indicator 3.5.1. For newly observed or discovered areas of special significance, *management activities** cease until this *engagement** has occurred.

FF Indicator 3.5.2 Through consultation with *experts** and input invited from applicable *Native American** groups, *The Organization** develops measures to *protect** or enhance areas of special significance, including for any newly observed or discovered areas of special significance.

Applicability: This *Indicator** is only applicable if areas of special significance have been identified and *rights** have been established. Areas of special significance include special cultural, ecological, economic, religious, and/or spiritual sites.

Guidance: Compliance with cultural resource *Best Management Practices** that have been developed at a state or regional scale with *tribal** consultation may be adequate to meet this *Indicator** when identified *Native American* Indigenous Peoples** do not wish to *engage**.

The confidentiality of sensitive *tribal** knowledge is maintained in keeping with *applicable laws** or at the behest of *Native American* Indigenous Peoples**. If necessary, public summaries of *management plans** may omit detailed location and identification data pertaining to sensitive resources. If *Native American* Indigenous Peoples** do not wish to disclose the location of sites with special significance, *engagement** with them may focus instead on identifying the kinds of ecological conditions that would achieve their desired outcomes.

FF Indicator Guidance: Cultural sites identified per Principle 9 (HCV 6) should also be considered.

C3.6 *The Organization** shall *uphold** the right of *Indigenous Peoples** to *protect** and utilize their traditional *knowledge** and shall compensate *local communities** for the utilization of such knowledge and their *intellectual property**. A *binding agreement** as per Criterion 3.3 shall be concluded between *The Organization** and the *Indigenous Peoples** for such utilization through *Free, Prior, and Informed Consent** before utilization takes place, and shall be consistent with the *protection** of *intellectual property** rights. (C3.4 P&C V4)

FF Indicators for Criterion 3.6 All indicators in this *Criterion** have a low risk of non-conformance for *family forest* Management Units** due to the *scale** and management *intensity** of *family forest* Management Units**, which normally result in very little use of *tribal* traditional knowledge** and *intellectual property**.

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

Indicator 3.6.1 *The Organization** respects the confidentiality of and *protects** *tribal* traditional knowledge** and *intellectual property** and uses such knowledge only with consent obtained through a *Free, Prior, and Informed Consent** process (per Annex F).

Guidance: Annex F explicitly addresses situations where consent is needed for *management*

*activities** that may affect *rights** held by *Native American** groups. A similar *Free, Prior, and Informed Consent** process with *culturally appropriate* engagement** that advances in *good faith** with the intent of reaching an agreement is also required for situations where consent is needed for use of *traditional knowledge** or *intellectual property**.

Indicator 3.6.2 When *traditional knowledge** or *intellectual property** is used, written protocols are jointly developed prior to such use and signed by *tribal** representatives or *tribal** members to protect and *fairly compensate** them for such use.

PRINCIPLE 4: COMMUNITY RELATIONS

The Organization* shall contribute to maintaining or enhancing the social and economic well-being of *local communities**. (P4 P&C V4)

C4.1 *The Organization** shall identify the *local communities** that exist within the *Management Unit** and those that are affected by management activities. *The Organization** shall then, through *engagement** with these *local communities**, identify their *rights* of tenure**, their *rights* of access to and use of forest* resources and ecosystem services**, their *customary rights**, and *legal** rights and obligations that apply within the *Management Unit**. (new)

Indicator 4.1.1 *The Organization** identifies *local communities** that exist in or are adjacent to the *Management Unit** and/or that may be significantly affected by *management activities**, and, through *engagement** per Annex F, identifies and documents *legal** rights applicable to the *Management Unit** that are held by these communities.

FF Indicator 4.1.1 *The Organization** makes reasonable efforts to identify *local communities** and *rights** held by these communities that may be significantly affected by *management activities**. The assessment and the *engagement** may be informal.

Intent: Due to the well-established *legal** structure in the United States for property rights, the *rights** of non-*tribal* traditional peoples** or *local communities** are established within the *legal** system, including any *customary rights**; therefore, for these non-*tribal** groups, *customary rights** do not need to be considered separately from *legal** rights. Additionally, while *The Organization** must assess the existence of *rights** held by non-*tribal* traditional peoples** or *local communities**, there is very limited occurrence in the US of these kinds of *rights** and most *Organizations** will not need to address them. Further, a *Free, Prior, and Informed Consent** process (per Criterion 4.2) is only required for these non-*tribal* rightsholders** if they are *traditional peoples** or *forest-dependent* local communities**.

*Rights** held by individuals are addressed through the *Indicators** of Criterion 1.2, Criterion 1.6, and Criterion 7.6. *Rights** held by *Native American** groups are addressed through the *Criteria** and *Indicators** of Principle 3. *Rights** held by non-*tribal** communities as a whole are addressed by Criterion 4.1 and Criterion 4.2 but, as noted above, these kinds of *rights** are very rare in the US.

Guidance: *Engagement** with *local communities** should focus on communication with representatives who have delegated authority from the community, such as a mayor, commissioner, or other elected representative. If this is not possible, other individuals who can represent the community as a whole are preferred, such as community elders or other civic leaders. Further guidance on *culturally appropriate** communications with *local communities** is provided in Annex F.

C4.2 The Organization* shall recognize and *uphold** the *legal** and *customary rights** of *local communities** to maintain control over management activities within or related to the *Management Unit** to the extent necessary to protect their *rights**, resources, *lands, and territories**. Delegation by *local communities** of control over management activities to third parties requires *Free, Prior, and Informed Consent**. (C2.2 P&C V4)

Indicator 4.2.1 *The Organization** allows the exercise of *rights** applicable to the *Management Unit** identified per Indicator 4.1.1, and when *management activities** may affect these *rights**, *The Organization** *engages** with the *rightsholder** to ensure that the *rights** in question are not violated. If the *rightsholder** is a *non-tribal* traditional people** or *forest-dependent* local community**, this *engagement** is through a *Free, Prior, and Informed Consent** process (per Annex F) with the *rightsholder** to secure consent prior to implementing the *management activities**. If the *rightsholder** does not wish to engage in a *Free, Prior, and Informed Consent** process, *The Organization** ensures that the *rights** in question are not violated.

Applicability: Not applicable if no *legal** rights are identified per Indicator 4.1.1.

C4.3 The Organization* shall provide *reasonable** opportunities for employment, training, and other services to *local communities**, contractors, and suppliers proportionate to *scale** and *intensity** of its management activities. (C4.1 P&C V4)

FF Indicator Intent: Supporting *local communities** is important, regardless of the *scale** or *intensity** of the *Management Unit**. However, conformance with FF Indicator 4.3.1 should be sufficient for ensuring that this is done to the extent possible on *family forest* Management Units**.

The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest* Management Units**.

Indicator 4.3.1 *The Organization** provides work opportunities to qualified *local** applicants and seeks opportunities for purchasing *local** goods and services of equal price and quality.

FF Indicator 4.3.1 Within its sphere of influence, *The Organization** supports *local** services.

Intent: *The Organization** should make consistent efforts to source goods and services from

*local communities** to the extent that they are available and reasonably cost competitive.

Guidance: Efforts to source *locally** may include, among others: *local** residents and businesses are included on a list, maintained by *The Organization**, of potential contractors and service providers (e.g., foresters, loggers); work opportunities are advertised in area newspapers.

Indicator 4.3.2 Commensurate with the size and scale of operation, *The Organization** provides and/or supports vocational learning opportunities associated with *forest** management.

FF Indicator 4.3.2 Not applicable for *family forest* Management Units**. Conformance with Criterion 4.3 for *family forest* Management Units** is addressed through FF Indicator 4.3.1.

C4.4 *The Organization** shall implement additional activities, through *engagement** with *local communities**, that contribute to their social and economic development, proportionate to the *scale**, *intensity**, and socioeconomic impact of its management activities. (C4.4 P&C V4)

Indicator 4.4.1 *The Organization** participates in *local** economic development and civic activities, based on *scale** of operation and where such opportunities are available.

FF Indicator 4.4.1 Not applicable for *family forest* Management Units** due to the *scale** and management *intensity** that limits capacity to affect social and economic development.

Federal Lands Supplement to Indicator 4.4.1 For *Management Units** within which *site-disturbing* management activities** occur, the applicable Federal agency also supports forest management-related trainings in efforts to develop a skilled workforce within the *local communities**.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with this *Indicator**.

C4.5 *The Organization**, through *engagement** with *local communities**, shall take action to identify, avoid, and mitigate significant negative social, environmental, and economic impacts of its management activities on affected communities. The action taken shall be proportionate to the *scale*, *intensity*, and *risk** of those activities and negative impacts. (C4.4 P&C V4)

Guidance: *Indicators** of Criterion 4.5 are intended to be applicable to potential community-level impacts and not applicable to impacts related to individuals. Examples of potential impacts at the community level include: excessive job losses such that it impacts the local tax base or home values, road use/maintenance that impacts an entire community versus individual residents, impacts to a viewscape that is a regional attraction, impacts to important cultural or archaeological sites, and impacts to important public values like air, water and/or food.

Indicator 4.5.1 Through *culturally appropriate* engagement** with *local communities**, *The Organization** identifies significant negative social, environmental, and economic community-level impacts that are likely to result from *management activities**.

FF Indicator 4.5.1 *The Organization** understands the likely impacts of *management activities** on *local communities**, incorporates this understanding into management planning and *management activities**, and implements strategies to avoid or mitigate potential significant negative impacts.

Federal Lands Supplement to Indicator 4.5.1 For *Management Units** that have a history of use and/or disposal of hazardous materials, munitions, and/or other military or industrial activities, the potential for negative effects to local communities that might accrue from these activities is addressed during engagement with *local communities**.

Intent: While the *local community** does not have the authority to make management decisions on private ownerships, *The Organization** is expected to engage with representatives of the community to learn about concerns and then work to address them.

Guidance: *Engagement** with *local communities** should focus on communication with representatives who have delegated authority from the community, such as a mayor, commissioner, or other elected representative. If this is not possible, other individuals who can represent the community as a whole are preferred, such as community elders or other civic leaders. Further guidance on *culturally appropriate** communications with *local communities** is provided in Annex F. *The Organization** should do its best to determine what is *culturally appropriate**. but if the representatives of the *local community** request a specific type of *engagement**, *The Organization** should respect the request.

The extent of outreach and *engagement** and to whom the outreach is directed should reflect the *scale** and *intensity** of *management activities**, and therefore the potential impact that *the Organization** may have on the *local community**.

The significance of potential impacts should be assessed by considering the spatial scale of the impact, the percentage of the *local community's** population that would be affected by the impact, and the temporal scale of the impact (i.e., temporary or short-term vs., long-term or irreversible).

FF Indicator Guidance: An informal evaluation of the potential impacts of *management activities** on surrounding landowners may be adequate for management units that represent a very small potential for impact.

Indicator 4.5.2 Through *culturally appropriate* engagement** with *local communities**, *The Organization** develops strategies to avoid or mitigate impacts identified per Indicator 4.5.1, and incorporates these into the management plan development (or revision) process.

FF Indicator 4.5.2 Not applicable for *family forest* Management Units**. Conformance with Criterion 4.5 for *family forest* Management Units** is addressed through FF Indicator 4.5.1.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family*

forest Management Units* with this Indicator*.*

C4.6 The Organization*, through *engagement** with *local communities**, shall have mechanisms for resolving grievances and providing *fair compensation** to *local communities** and individuals with regard to the impacts of management activities of *The Organization**. (C4.5 P&CV4)

Intent: Annex D provides background on the framework of the *dispute** management system employed in this Standard and provides guidance for *Organizations**. If a *dispute** is identified regarding the impacts of management activities on affected *local communities** and other *affected stakeholders**, the *Indicators** of Criterion 1.6 are addressed for the identified *dispute**.

C4.7 The Organization*, through *engagement** with *local communities**, shall identify sites which are of special cultural, ecological, economic, religious, or spiritual significance, and for which these *local communities** hold *legal** or *customary rights**. These sites shall be recognized by *The Organization**, and their management and/or *protection** shall be agreed through *engagement** with these *local communities**. (new)

The elements of the Criterion are addressed through the Indicators* of Criteria 4.1, 4.2, and 4.5, and, as such, no Indicators* are included here. Any nonconformances shall be assessed to the Indicators* of these other Criteria*.*

C4.8 The Organization* shall *uphold** the right of *local communities** to *protect** and utilize their *traditional knowledge** and shall compensate *local communities** for the utilization of such knowledge and their *intellectual property**. A *binding agreement** as per *Criterion** 3.3 shall be concluded between *The Organization** and the *local communities** for such utilization through *Free, Prior, and Informed Consent** before utilization takes place, and shall be consistent with the *protection** of *intellectual property** rights. (new)

This Criterion is believed to be not applicable in a US context. There is no traditional knowledge* specific to non-tribal* local communities* in the forest* domain that could be considered intellectual property*. Traditional knowledge* specific to Indigenous Peoples* is addressed in Criterion 3.6.*

However, if found to be applicable in a specific situation, assessment of conformance should be completed with the Criterion 4.8 FSC International Generic Indicators (FSC-STD-60-004).

PRINCIPLE 5: BENEFITS FROM THE FOREST*

***The Organization** shall efficiently manage the range of multiple products and services of the *Management Unit** to maintain or enhance *long-term* economic viability** and the range of social and environmental benefits. (P5 P&C V4)**

Federal Lands Guidance for **PRINCIPLE 5**: Management is expected to contribute to social, economic, and ecological conditions in the *Management Unit** and the broader landscape. This should include multiple uses, *ecosystem services**, and social and cultural benefits for the national public interest. See also the Intent Note associated with Criterion 5.5, the requirements of Principle 6 that address conservation, restoration and ecosystem resilience, among other issues, and the requirements of Principle 7 that address incorporation of conservation, protection, restoration and *ecosystem services** into management objectives.

C5.1 *The Organization shall identify, produce, or enable the production of, diversified benefits and/or products, based on the range of resources and *ecosystem services** existing in the *Management Unit** in order to strengthen and diversify the local economy proportionate to the *scale* and intensity** of management activities. (C5.2 and 5.4 P&C V4).**

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

Indicator 5.1.1 *The Organization** demonstrates knowledge of the operation's current and potential impact on the *local** economy as it relates to existing and potential markets for *ecosystem services** applicable to the *Management Unit** (e.g., timber, *non-timber forest products**, water, carbon sequestration, recreation).

FF Indicator 5.1.1 Low *risk** of non-conformance, due to the limited capacity of *management activities** to affect the local economy.

Federal Lands Supplement1 to Indicator 5.1.1 The applicable Federal agency, in collaboration with *local communities** and *experts**, identifies and assesses opportunities to contribute to the diversification of the local economy, including but not limited to, restoration, recreation, *ecosystem services** or other new markets.

Federal Lands Supplement2 to Indicator 5.1.1 The applicable Federal agency takes a leadership role in the community by using the assessment (per Federal Lands Supplement1 to Indicator 5.1.1) to enhance the local economy.

Indicator 5.1.2 Consistent with *management objectives**, *The Organization** strives to diversify the economic use of the *forest**.

FF Indicator 5.1.2 Low *risk** of non-conformance, due to the limited capacity of *management activities** to affect the local economy.

Applicability: For *public lands**, diversification of the economic use of the *forest** is a requirement.

Intent: The primary *management objectives** of *The Organization** may be *conservation** or *protection** focused.

Guidance: Diversification of economic uses may include but is not limited to: recreation; ecotourism; hunting; fishing; specialty products and lesser-used *species** of trees, grades of logs, and lumber; *non-timber forest products**; and emerging markets in new commodities such as water in its value to provide in-stream water flows.

Indicator 5.1.3 *The Organization** complies with FSC-PRO-30-006 when making FSC promotional claims regarding *ecosystem services**.

C5.2 *The Organization** shall normally harvest products and services from the *Management Unit** at or below a level which can be permanently sustained. (C5.6 P&C V4)

FF Indicator Intent: Sustainable harvest is essential, regardless of the *scale** or *intensity** of the *Management Unit**. However, conformance with Indicator 5.2.4 and Indicator 5.2.5 should be sufficient for ensuring that sustainable harvests occur on *family forest* Management Units**.

The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest* Management Units**.

Federal Lands Intent for **Criterion 5.2**: This FSC Standard does not mandate the harvest of forest products. Given the multitude of both resource extractive and resource non-extractive services provided by federal lands, it is recognized that *forest** management is a critical tool for achieving larger scale environmental, economic, and social objectives/services on federal *Management Units**, whether or not harvest occurs.

Indicator 5.2.1 In *Management Units** where products are being harvested, *The Organization** calculates the *sustained yield harvest level** for each *planning unit**. The *sustained yield harvest level** calculation is documented in the *management plan**.

The *sustained yield harvest level** calculation for each *planning unit** is based on *Best Available Information**, including:

- a. documented growth rates applicable for particular sites, and/or acreage of *forest** types, *age-classes**, and *species** distributions;
- b. mortality, decay, and other factors that affect net growth (e.g., disturbance events);
- c. areas reserved from harvest or subject to harvest restrictions to meet other management goals;
- d. *silvicultural** practices that will be employed on the *Management Unit**; and
- e. *management objectives** and *desired future conditions**.

The calculation is made by considering the effects of repeated prescribed harvests on the product/species* and its ecosystem*, as well as planned management activities* and projections of subsequent regrowth beyond single rotation and multiple re-entries.

FF Indicator 5.2.1 Not applicable for family forest* Management Units*. Conformance with Criterion 5.2 for family forest* Management Units* is addressed through Indicator 5.2.4 and Indicator 5.2.5.

Intent: The method used to calculate the *sustained yield harvest level** for timber products is commensurate with the *scale** and *intensity** of the *forest** management operation.

For *Management Units** in which harvesting occurs infrequently, harvest levels and/or re-entry frequencies are set consistent with achieving and/or maintaining *desired future conditions**.

Guidance: Area control may be used to calculate *sustained yield harvest levels** when the *planning unit** is relatively homogenous regarding timber types and site class, and age-class distributions are such that harvest rates based on acreage approximate an equal periodic yield of products of desired sizes and quality for perpetuity.

Indicator 5.2.2 The Organization* provides clear rationale for determining the size and layout of the *planning unit(s)**.

FF Indicator 5.2.2 Not applicable for family forest* Management Units*. Conformance with Criterion 5.2 for family forest* Management Units* is addressed through Indicator 5.2.4 and Indicator 5.2.5.

Indicator 5.2.3 Average annual harvest levels (over rolling periods that are equal to the duration of the *management plan** revision cycle, per Indicator 7.4.1) are recorded and do not exceed the calculated *sustained yield harvest level**, except when justified per Indicator 5.2.4.

FF Indicator 5.2.3 Not applicable for family forest* Management Units*. Conformance with Criterion 5.2 for family forest* Management Units* is addressed through Indicators 5.2.4 and 5.2.5.

Guidance: If the intent is to change the *species** balance in a stand or *planning unit**, or to achieve a desired *age class** structure, or to manage a catastrophic or natural event such as fire or pest outbreak, a particular *species** might be harvested at a higher-than-sustainable rate until its optimal stand occupancy can be achieved (e.g., by restocking via planting, etc.).

Indicator 5.2.4 Rates and methods of timber harvest lead to achieving desired conditions and improve or maintain health and quality across the *Management Unit**. Overstocked stands and stands that have been depleted or rendered to be below productive potential due to natural events, past management, or lack of management are returned to desired stocking levels and composition at the earliest practicable time as justified in *management objectives**.

Guidance: Harvesting practices which degrade the long-term ecological or *economic viability** of the residual stand (e.g., *high-grading**), and/or do not sustain *forest* ecosystems** over the

*long term**, do not meet the requirements of Indicator 6.6.2, Indicator 7.2.14, Indicator 10.5.1, Indicator 10.11.4, nor Indicator 5.2.4.

Indicator 5.2.5 When *non-timber forest products** (i.e., NTFP) are sold commercially, *The Organization** does not exceed a *sustained yield harvest level**.

C5.3 *The Organization shall demonstrate that the positive and negative externalities* of operations are included in the *management plan**. (C5.1 P&C V4)**

Indicator 5.3.1 *The Organization** establishes, and describes in the *management plan**, financial or other strategies to prevent, mitigate, *restore**, or compensate for potential negative social and environment impacts resulting from *management activities**.

FF Indicator 5.3.1 Not applicable for *family forest** *Management Units** due to the limited *scale** and frequency of *management activities** that occur on *family forest** *Management Units**

Intent: *The Organization** is not expected to make confidential financial information public as part of conformance with this *Indicator**.

Guidance: Considerations should include the impacts addressed by *The Organization** per Criterion 4.5 in addition to other environmental and social impacts identified by *The Organization** through conformance with the Standard.

Possible examples for evidence of conformance include project appraisals, budgets and insurance policies.

Indicator 5.3.2 Benefits related to positive social and environment impacts of *management activities** are identified and described in the *management plan**.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest** *Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest** *Management Units**.

C5.4 *The Organization shall use *local** processing, *local** services, and *local** value adding to meet the requirements of *The Organization** where these are available, proportionate to *scale*, *intensity** and *risk**. If these are not locally available, *The Organization** shall make *reasonable** attempts to help establish these services. (C5.2 P&C V4)**

Indicator 5.4.1 Where *forest** products are harvested or sold, opportunities for *forest** product sales and services are given to *local** harvesters, value-added processing and manufacturing facilities, and other operations that are able to offer services at competitive rates and levels of service.

FF Indicator 5.4.1 Low risk of non-conformance, and if a non-conformance were to go undetected, there is a low risk of negative impacts to social or environmental value due to the limited capacity of *management activities** to affect local service.

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest** *Management Units** do not need to be audited for *family forest** *Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

Indicator 5.4.2 Attempts are made to encourage and/or support capacity if *local** goods, services, processing, and value-added facilities are not adequate or available.

FF Indicator 5.4.2 Not applicable for *family forest** *Management Units** due to the limited capacity of *management activities** to affect local services.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest** *Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest** *Management Units**.

Indicator 5.4.3 On *public lands** where *forest** products are harvested and sold, some sales of *forest** products or contracts are scaled or structured to allow small businesses to bid competitively.

Applicability: This *Indicator** is only applicable to *public lands**.

Intent: This *Indicator** focuses on the ability of small businesses to bid competitively, and does not assume that the bid will be awarded. Factors such as price, equivalent skills, experience, and abilities to perform the required tasks must be taken into account in awarding sales and contracts.

Guidance: Designation of "small businesses" should be interpreted within the context of the existing definitions used by the applicable *public land** administrating agency.

Federal Lands Guidance for **Indicator 5.4.3**: This includes the use of available contracting mechanisms and other tools, such as stewardship contracting, Collaborative Forest Landscape Restoration (CFLR), Special Salvage Timber Sales (SSTS), the Small Business Act (SBA) timber set-aside program and the Good Neighbor Authority in affording opportunities to local, financially competitive service providers and in supporting the development of small value-added processing and manufacturing facilities.

C5.5 *The Organization** shall demonstrate through its planning and expenditures proportionate to *scale*, *intensity** and *risk**, its commitment to *long-term** *economic viability**. (C5.1 P&C V4)

Federal Lands Intent for **Criterion 5.5**: For the *Management Unit**, economically viable forest management is characterized as management which supports ecosystem integrity and

contributes to ecological, social and economic sustainability. Forest operations are structured and managed to achieve the mission of the agency/*management unit** without generating financial profit at the expense of the forest resource, the *ecosystem**, or affected communities.

Indicator 5.5.1 *The Organization** has the capacity to implement core *management activities** required to meet this Standard.

FF Guidance: *The Organization** is not required to share their personal finances with the *Certification Body**. Examples of how this could be demonstrated:

- Financial investment in *management activities** and *infrastructure**
- Contracted services with a forestry professional
- Use of cost-share programs
- Investment of time and labor to accomplish *management activities**

Indicator 5.5.2 Responses to short-term financial factors are limited to levels that are consistent with fulfillment of this Standard.

Intent: Short-term financial factors may include but are not limited to: fluctuations in the market, requirements for cash flow, and the need for sawmill equipment and log supplies.

Guidance: “Responses to short-term financial factors” may include but are not limited to: increases in harvests or debt load, deferred maintenance of roads, and staff reductions.

Federal Lands Guidance for **Indicator 5.5.2**: Budget constraints and other fluctuations in appropriations may be considered short-term financial factors.

PRINCIPLE 6: ENVIRONMENTAL VALUES* AND IMPACTS

*The Organization** shall maintain, *conserve**, and/or *restore** *ecosystem services** and *environmental values** of the *Management Unit**, and shall avoid, repair, or mitigate negative environmental impacts. (P6 P&C V4)

Intent: Principle 6 focuses on maximizing positive environmental impacts and minimizing adverse environmental impacts from *management activities** while recognizing the uncertainty of information and outcomes and exercising the *precautionary approach**.

The primary intent of Criteria 6.1 through 6.3 is to avoid creating significant negative environmental impact by conducting baseline assessments of resource attributes, assessing the potential environmental impact of proposed *management activities**, and then incorporating the results of these assessments into management planning.

Guidance: *Best Available Information** for Criteria 6.1 through 6.3 may include, as appropriate:

- *Representative Sample Areas** showing environmental values in their *natural condition**
- field surveys

- databases relevant to the environmental values
- consultation with local and regional *experts**
- *culturally appropriate* engagement** with *Indigenous Peoples**, *local communities**, and *affected stakeholders** and *interested stakeholders**
- historical and potential occurrence of *catastrophic natural disturbances**

C6.1 The Organization* shall assess *environmental values** in the *Management Unit** and those values outside the *Management Unit** potentially affected by *management activities**. This assessment shall be undertaken with a level of detail, scale, and frequency that is proportionate to the *scale**, *intensity**, and *risk** of *management activities**, and is sufficient for the purpose of deciding the necessary *conservation** measures, and for detecting and monitoring possible negative impacts of those activities. (new)

Federal Lands Intent for **Criterion 6.1**: Protection and enhancement of ecosystem services and resources are core responsibilities of land-managing Federal agencies. This includes consideration and management at a landscape-scale, and pursuing opportunities to work across ownerships in collaboration with other agencies and landowners.

Indicator 6.1.1 Using *Best Available Information** and *local** knowledge and experience, an assessment of conditions is completed that identifies environmental values that may be affected by *management activities** implemented on the *Management Unit**, considering environmental values that occur both inside and outside the *Management Unit**. The assessment includes:

- forest** community types, size class, and/or *successional** stages, and associated *natural disturbance regimes**;
- rare, threatened, and endangered species** and *rare ecological communities** (including plant communities);
- other *habitats**, *ecosystems**, and *species** of management concern;
- water resources, including watercourses* *water bodies**, *wetlands**, *riparian areas** and hydrologic functions;
- soil** resources;
- forest* ecosystem services** and resources that support public values (e.g., community drinking water, commercial and recreational fisheries, carbon storage, carbon sequestration, recreation, and tourism);
- historic conditions** on the *Management Unit** related to forest community types, size class, and/or *successional** stages;
- a broad comparison of *historic conditions** and current conditions; and
- potential future impacts of *catastrophic natural disturbances**.

FF Indicator 6.1.1 At minimum, available Natural Heritage databases are consulted and an evaluation of environmental values in the *Management Unit** is conducted that includes: (1) summary of size class and/or *successional** stages; (2) the condition of unique, vulnerable, rare, and threatened communities; (3) all state and federally listed sensitive, *rare, threatened, and endangered species** and their *habitats**; (4) water resources and *riparian areas**; (5) *soil** resources; and (6) consideration of potential impacts of *catastrophic natural disturbances**.

Federal Lands Supplement1 to Indicator 6.1.1 The assessment also considers environmental values outside of the *Management Unit**, but within the same landscape.

Federal Lands Supplement2 to Indicator 6.1.1 The assessment of conditions includes:

-
- threats to *species** persistence and their ability to persist within the *Management Unit** and in the *landscape**,
- opportunities for climate change adaptation, including the potential to manage for *forest** resiliency that will help to reduce future climate-related *forest** impacts (or degradation), and
- vulnerability to *stand** replacing (severe) fire (relative to the Natural Range of Variability), and other major disturbances such as windthrow (see also Federal Lands Indicator 6.1.4).

Federal Lands Supplement3 to Indicator 6.1.1 For *Management Units** that have a history of use and/or disposal of hazardous materials, munitions, and/or other military or industrial activities, the assessment of conditions includes the potential negative impacts on environmental values from these activities.

Intent: Indicator 6.1.1 establishes *historic conditions**, current conditions and potential future conditions for assessing environmental impacts. Establishing *historic conditions** facilitates: creating a baseline for assessing environmental impacts of management activities* and establishing *desired future conditions**

Guidance: When *historic conditions** are not available, best estimates from available sources may be used. .

*Natural disturbance regimes** include wind, fire, insects, and *pathogens**. Typical disturbance events in terms of opening size, *intensity** of disturbance, range, and frequency of disturbance are considered to the extent they are known.

The assessment for *rare, threatened, and endangered species** and *rare ecological communities** includes *species** and ecological communities with NatureServe and Natural Heritage Program conservation status ranks of G1–G3 and S1–S2 (1 [critically imperiled] through 5 [secure]) at global (“G”) and state (“S”) scales). Additionally, some S3-ranked *species** and ecological communities should be considered. S3 *species*/communities* that are candidates for federal or state listing should be considered *rare, threatened, and endangered species*/rare ecological communities**. Other S3 *species** and communities should be considered rare when the *species*/community* is sensitive and vulnerable to impact from the types of *management activities** that will occur on the *Management Unit**. In states where S1–S3, or G3 *species** and communities information is incomplete, the *Best Available Information** for S1–S3 and G3 *species** and communities’ occurrences and the finest resolution of classification commonly available in that state should be used.

Primary sources of information include state Natural Heritage Programs, NatureServe, LANDFIRE, state wildlife agencies, US Fish and Wildlife Service, and the National Marine Fisheries Service. Depending on the *scale** and *intensity** of management activities* and

potential for *risk** as indicated by consultation with *conservation** agencies, on-site searches for *rare, threatened, and endangered species** may be applicable.

“Other *habitats** and *species** of management concern” may include a) Species of Greatest Conservation Need and Priority Habitats identified in state “Wildlife Action Plans” and priorities identified by state and federal conservation agencies; b) areas identified in *conservation** plans developed by other *conservation** organizations using *Best Available Information** (e.g., The Nature Conservancy or NatureServe); c) *habitats** for other *species** potentially at *risk** due to management; and d) climate change refugia. See also Indicators 6.7.1 and 10.2.1 .

Item (f) is intended to address *ecosystem services** that are associated with public values.

*The Organization** is not required to quantify carbon storage and sequestration. *The Organization** should consider the values associated with carbon and integrate it into management decisions as is done with watersheds, fisheries, and recreation.

The *forest** community and successional* stage classification must include sufficient differentiation to account for *forest** sites’ natural diversity and tree *species**, *habitat** types, stand structures, and their distribution (or lack thereof), including *successional** stages from regeneration through *old growth** (see also Indicator 6.6.1).

“Other *habitats** and *species** of management concern” may include a) Species of Greatest Conservation Need and Priority Habitats identified in state “Wildlife Action Plans” and priorities identified by state and federal conservation agencies; b) areas identified in science-based *conservation** plans developed by other *conservation** organizations (e.g., The Nature Conservancy or NatureServe); c) *habitats** for other *species** potentially at *risk** due to management; and d) climate change refugia. See also Indicators 6.7.1 and 10.2.1 .

Examples of situations with *management activities** occurring within the *Management Unit** affecting environmental values outside of the *Management Unit**, include impacts on downstream water quality, and *rare, threatened, and endangered species** and/or *rare ecological communities** that extend from the *Management Unit** onto adjacent lands.

FF Indicator Intent: When Natural Heritage databases are not readily available, State Forest Action Plans, State Wildlife Action Plans, and other regional assessments or landscape-level plans developed via stakeholder input, may be considered.

Indicator 6.1.2 Assessments of environmental values identified per Indicator 6.1.1 are conducted by *The Organization** with a level of detail and frequency so that:

- a. Impacts of *management activities** on the values can be assessed per Criterion 6.2;
- b. *Risks** to the values can be identified per Criterion 6.2;
- c. Necessary *conservation** measures to protect the values can be identified per Criterion 6.3; and,
- d. Monitoring of impacts or environmental changes can be conducted per Principle 8.

Indicator 6.1.3 On *public lands**, assessments developed per Indicator 6.1.1 are publicly *available** in draft form for review and comment prior to finalization. Final assessments are also *publicly available**.

Guidance: Information that *The Organization** and *Certification Body** deem necessary to keep confidential (e.g., location of *rare, threatened, and endangered species**) may be kept confidential.

Federal Lands Indicator 6.1.4 Carbon stocks, carbon removals (through harvest, fire and other significant disturbances) and carbon sequestration are quantified and tracked. The rationale for methodologies employed are based on *best available information** and documented.

C6.2 Prior to the start of site-disturbing activities, *The Organization** shall identify and assess the *scale, intensity, and risk** of potential impacts of management activities on the identified *environmental values**. (C6.1 P&C V4)

FF Guidance: The expectations for meeting this *Criterion** are scale-dependent and the rigor of the assessment is commensurate to the level of disturbance. Less-extensive and less-technical assessments may be adequate for *family forest* Management Units** to demonstrate conformance.

Indicator 6.2.1 Prior to commencing site-disturbing activities, *The Organization** assesses and documents the potential short-term and *long-term** impacts of planned *management activities** on environmental values identified per Indicator 6.1.1. The assessment incorporates the *Best Available Information**. The impact assessment will at a minimum include identifying resources that may be impacted by *management activities** (e.g., streams, *habitats** of management concern, *soil** nutrients).

FF Indicator 6.2.1 Prior to commencing site-disturbing activities, *The Organization** conducts an informal impacts assessment that addresses and documents the *short-term and long-term** impacts on environmental values identified per FF Indicator 6.1.1 that are likely to result from the activities. The assessment incorporates the *Best Available Information**.

Federal Lands Supplement to Indicator 6.2.1 The elements in the Federal Lands Supplements to Indicator 6.1.1 are included in this documented assessment.

Intent: This *Indicator** considers scales of impacts from the stand level to the landscape level.

Short-term impacts can be measured during or within a short period of the *management activity** (e.g., within one year). *Long-term** impacts are those that persist for longer periods and include *cumulative impacts** (e.g., cumulative *habitat** changes or *cumulative impacts** to *soils** from whole-tree removal). *Cumulative impacts** may occur over time at one site (e.g., depletion of *soil** nutrients) or at the *landscape** or ownership scale (e.g., the *cumulative impact** of many harvests on wildlife *habitat**).

Assessments of environmental impacts do not require a formal “Environmental Impact Assessment” as defined under national laws* and local laws*.

Guidance: Level of detail (i.e., detailed description or quantification of impacts) will vary depending on the uniqueness of the resource, potential *risks**, and steps that will be taken to avoid and minimize *risks**.

FF Indicator Guidance: For *family forest* Management Units**, assessment and documentation of long-term impacts are not always necessary or appropriate. Harvest prescriptions, techniques, site preparation, timing, and equipment used should be included in considerations of long-term impacts.

C6.3 The Organization* shall identify and implement effective actions to prevent negative impacts of management activities* on the environmental values*, and to mitigate and repair those that occur, proportionate to the scale*, intensity*, and risk* of these impacts. (C6.1 P&C V4)

Indicator 6.3.1 Using the findings of the impact assessment (per Indicator 6.2.1), *management strategies** are developed and implemented that: 1) prevent or minimize negative short-term and *long-term** impacts; and 2) maintain and/or enhance the environmental values identified per Indicator 6.1.1.

Intent: Emphasis should be placed first on avoidance and then on minimizing and mitigating negative impacts.

Guidance: *Management strategies** and field prescriptions to address short-term impacts from *management activities** that recur throughout the implementation of the plan may be addressed in the *management plan** or in separate management guidelines that are designed to avoid potential *risks**.

Prescriptions to site-specific features (e.g., unique *habitats**, *water bodies**, identification of sensitive *soils**) are typically addressed in operations plans and/or prescriptions.

Indicator 6.3.2 Where negative impacts to environmental values identified per Indicator 6.1.1 occur as a result of *management activities** implemented by *The Organization**, measures are adopted to prevent further damage, and negative impacts are mitigated and/or repaired.

Intent: The “repair” is of the damage done to environmental values which resulted from *management activities**. It is not intended to require the formation of more *natural conditions** in sites that have been heavily degraded or converted to other land uses.

Indicator 6.3.3 On *public lands**, *management strategies** developed per Indicator 6.3.1 are *publicly available** in draft form for review and comment prior to finalization. Final assessments are also *publicly available**.

Guidance: Information that *The Organization** and *Certification Body** deem necessary to keep confidential (e.g., location of *rare, threatened, and endangered species**) may be kept confidential.

Federal Lands Indicator 6.3.4 When the analysis required by Federal Lands Supplement1 to Indicator 6.1.1 indicates impacts, threats and/or opportunities related to one or more of the

identified ecological values or functions, actions to address the threats and/or advance opportunities are developed and implemented.

Federal Lands Indicator 6.3.5 Areas within the *Management Unit** that actively function as *refugia** are identified and continue to be managed to support the *refugia*'s* composition, structure, and function. Other *management activities** do not detract from these elements of the *refugia**.

C6.4 *The Organization** shall protect rare *species** and threatened *species** and their *habitats** in the *Management Unit** through *conservation zones**, *protection areas**, *connectivity**, and/or (where necessary) other direct measures for their survival and viability. These measures shall be proportionate to the *scale**, *intensity**, and *risk** of *management activities** and to the *conservation** status and ecological requirements of the rare and threatened *species**. *The Organization** shall take into account the geographic range and ecological requirements of rare and threatened *species** beyond the boundary of the *Management Unit** when determining the measures to be taken inside the *Management Unit**. (C6.2 P&C V4)

Intent: This Criterion establishes safeguards for *rare, threatened, and endangered species** that were identified per Criterion 6.1. Safeguards for *rare ecological communities** identified per Criterion 6.1 are addressed in Criterion 6.6.

Where adequate plans or information do not exist and the likely presence of *rare, threatened, and endangered species** is indicated, *The Organization** is required to follow a *precautionary approach** and manage as though they are present.

Indicator 6.4.1 If there is a likely presence of *rare, threatened, and endangered species** as identified per Indicator 6.1.1 then either a field survey to verify the *species** presence or absence is conducted prior to site-disturbing *management activities**, or *management activities** occur with the assumption that potential *rare, threatened, and endangered species** are present.

Surveys are conducted by individuals with the appropriate expertise in the *species** of interest and with appropriate qualifications to conduct the surveys. If surveys conclude a *species** is present, its location is reported to the manager of the appropriate database.

Intent: "Likely" is a judgment decision by *The Organization** in consultation with *experts** (and verification by the *Certification Body**), and is determined by occurrences in proximity with the *management activities** and/or the similarity of *habitat** as indicated by input from appropriate natural resource agencies such as state wildlife agencies, the Natural Heritage programs, NatureServe, the National Marine Fisheries Service, and knowledge of *historic conditions**.

Guidance: Surveys may be conducted externally or internally by the Organization; however, survey protocols are expected to be designed and implemented without bias and based on *Best Available Information**.

Indicator 6.4.2 If *rare, threatened, and endangered species** are present, or assumed to be present, modifications in *management activities** are made to maintain, *restore**, and/or

enhance the extent, quality, and viability of *species** and their *habitats**. *Conservation zones** and/or *protected areas** are established for *rare, threatened, and endangered species**, including those S3 *species** that are considered rare, where they are necessary to maintain or improve the short-term and *long-term** viability of the *species**. Conservation strategies take into account the geographic range and ecological requirements of rare and threatened *species** beyond the boundary of the *Management Unit** when determining the measures to be taken inside the *Management Unit** and are based on *Best Available Information** .

Intent: *The Organization** is expected to maintain or enhance the viability of *species** populations, this does not necessarily require no net loss of *habitat**.

Guidance: *Conservation zones** are not considered “set asides” and active management within these areas is allowed where appropriate.

*Best Available Information** includes consultation with applicable regulatory agencies. When possible, provide for *connectivity** to allow for genetic mixing of *rare, threatened, and endangered species**, and also consider *connectivity** of potential *habitats** at different ecological gradients, which may assist *species** adaptation to climate change (e.g., to potential *habitats** at various elevations or latitudes).

Federal Lands Guidance for **Indicator 6.4.2**: During audits, *The Organization** may be asked to demonstrate how the mitigation measures required by a biological opinion (issued by USFWS as part of Section 7 consultation) are achieving the expectations of Indicator 6.4.2.

Indicator 6.4.3 For *medium** and *large** public management units* , *management plans** and *management activities** are designed to support *species** recovery as well as *landscape**-level *biodiversity** conservation goals.

Federal Lands Supplement to Indicator 6.4.3 Considering the landscape-scale assessment completed per Indicator 6.1.1, *The Organization** identifies where additional *habitats** are needed for the recovery and long-term viability of *rare, threatened and endangered species** identified in the assessment. *The Organization** implements management strategies to provide these *habitats** within the *Management Unit**.

Indicator 6.4.4 Within the capacity of *The Organization** , hunting, fishing, trapping, collecting, and other activities are controlled to avoid the risk of impacts to *rare, threatened, and endangered species** (see also Criterion 1.4).

On *tribal** lands and where *Native American** groups have retained *use rights** , implementation of the activities mentioned above for ceremonial purposes, in recognition of *Native Americans**' sovereignty and unique ownership, avoids risk to populations of *rare, threatened, and endangered species** or *rare ecological communities** and conforms with applicable *national laws** and *local laws** or with an agreement between a *Native American** group and the US Fish and Wildlife Service.

FF Indicator 6.4.4 Low *risk** of non-conformance due to the *scale** of the *Management Unit**.

FF Indicator Intent: This *Indicator** has been designated as ‘low risk’ for *family forest** *Management Units** , and therefore does not need to be audited for these *Management Units**

unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

C6.5 *The Organization shall identify and protect *Representative Sample Areas** of native *ecosystems** and/or *restore** them to more *natural conditions**. Where *Representative Sample Areas** do not exist or are insufficient, *The Organization** shall *restore** a proportion of the *Management Unit** to more *natural conditions**. The size of the areas and the measures taken for their *protection** or *restoration**, including within *plantations**, shall be proportionate to the *conservation** status and value of the *ecosystems** at the *landscape** level, and the *scale**, *intensity**, and *risk** of *management activities**. (C6.4 and 10.5 P&C V4 and Motion 7:2014)**

Intent: The goal of this *Criterion** is to manage or *restore** sites to favor or form *viable** examples of native *ecosystems** that are typical and that would naturally occur in the *Management Unit**. One of the primary provisions in Criterion 6.5 is to ensure that examples of *ecosystem** types that are not *protected** elsewhere in this Standard (see Criteria 6.4 and 6.6, and Principle 9) are *protected** in their natural state within the landscape. A given area may serve to achieve conformance for multiple *Criteria** (e.g., 6.4, 6.5, 6.6, and Principle 9). *Representative Sample Areas** should reflect the full diversity of native *ecosystems**, not just those that are *forested**. However, they should not disproportionately represent non-*forested** *ecosystems**.

*Representative Sample Areas** are to be established within the *Management Unit**, except in a limited number of situations that are described in Annex G.

*Representative Sample Areas** will generally be fixed in location, unless representative of *ecosystems** within a shifting mosaic of *ecosystems**, such as those resulting from frequent natural (or mimicked) disturbance.

Guidance: Additional guidance for identification and designation of *Representative Sample Areas** is included in Annex G.

The expectation is to prioritize *ecosystems** and ecological conditions that are in greater need of *conservation** assistance. Annex G provides further considerations for which *ecosystems** to emphasize, including when *Representative Sample Area** establishment is not essential for a particular *ecosystem**.

FF Indicator Intent: With very limited exceptions, conformance with Criterion 6.5 is expected, regardless of the *scale** or *intensity** of the *Management Unit**. However, conformance with Indicator 6.5.1, FF Indicator 6.5.2, Indicator 6.5.5, Indicator 6.5.6, and Indicator 6.5.7 should be sufficient for ensuring that the core intent of this Criterion is addressed for *family forest** *Management Units**.

The *Certification Body** is not expected to assess conformance of *family forest** *Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest** *Management Units**.

Indicator 6.5.1 *Best Available Information** is used to identify native *ecosystems** that would typically occur within the *Management Unit** given the existing climate and soil conditions.

Indicator 6.5.2 Aligned with Annex G, *viable** examples of native *ecosystems** identified per Indicator 6.5.1 are designated as *Representative Sample Areas** and protected.

FF Indicator 6.5.2 *Representative Sample Areas** are established to conserve native *ecosystems** that occur on the *Management Unit** or could be *restored**.

Federal Lands Supplement to Indicator 6.5.2 The applicable Federal agency establishes *Representative Sample Areas** within the *Management Unit** to *conserve** or *restore** *viable** examples of all native *ecosystems** that would naturally occur on the *Management Unit** irrespective of the occurrence or protection of the *ecosystems** outside of the *Management Unit**.

FF Guidance: Annex G provides family forest*-specific guidance for conformance with Criterion 6.5

Federal Lands Guidance for **Federal Lands Supplement to Indicator 6.5.2**: Federal lands play a critical role in protecting and restoring native *ecosystems**. It is therefore expected that the *Management Unit** maintain and/or expand an ecologically viable, resilient, well-distributed, and where possible, interconnected protected area system for all native *ecosystems** that would naturally occur on the *Management Unit**.

Indicator 6.5.3 Aligned with Annex G, if viable examples of native *ecosystems** identified per Indicator 6.5.1 do not exist within the management unit* or are inadequately represented and/or protected in the *landscape**, and the *ecosystem** occurs within the *Management Unit** in a degraded condition but could be restored, a portion of the *management unit** which includes the *ecosystem** is designated as a *Representative Sample Area** and is *restored** to more natural conditions*.

FF Indicator 6.5.3 Not applicable for *family forest** *Management Units**. Conformance with Criterion 6.5 for *family forest** *Management Units** is addressed through Indicator 6.5.1, FF Indicator 6.5.2, Indicator 6.5.5, Indicator 6.5.6, and Indicator 6.5.7.

Guidance: Further guidance regarding considerations for restoration potential is included in Annex G.

Indicator 6.5.4 Aligned with Annex G, the extent of *Representative Sample Areas** for a particular native *ecosystem** is proportionate to the *conservation** status and value of the *ecosystem** at the *landscape** level, and the overall extent of *Representative Sample Areas** is proportionate to the size of the *Management Unit** and the *intensity** of *forest** management.

FF Indicator 6.5.4 Not applicable for *family forest** *Management Units**. Conformance with Criterion 6.5 for *family forest** *Management Units** is addressed through Indicator 6.5.1, FF Indicator 6.5.2, Indicator 6.5.5, Indicator 6.5.6, and Indicator 6.5.7.

Indicator 6.5.5 *Management activities** within *Representative Sample Areas** are limited to activities that support or do not detract from the *Representative Sample Area** objectives for *ecosystem* conservation* or restoration**.

Guidance: The primary purpose of a *Representative Sample Area** is to *conserve** (i.e., maintain or enhance) or *restore** a particular native *ecosystem** as an ecological reference area. Management to achieve this purpose may range from a more “hands-off” approach to more intensive management. Other *management activities** may occur within a *Representative Sample Area** as long as they support, or do not detract from, the primary purpose. In rare occurrences, when an activity is essential for achieving overall *management objectives**, and any alternative would result in extensive damage to environmental or social values outside of the *Representative Sample Area**, but could be accomplished within the *Representative Sample Area** with limited negative impacts to the *Representative Sample Area**, the activity may be implemented, as long as it is still possible to achieve the primary purpose of the *Representative Sample Area**.

When *forest* management activities** (including timber harvest) create and maintain conditions that emulate an intact, mature *forest** or other *successional** phases that may be underrepresented in the *landscape**, the management system that created those conditions may be used to maintain them, and the area may be considered as a representative sample for the purposes of meeting this *Criterion**. *Representative Sample Areas** serving as ecological reference areas will generally not be managed for timber harvest, unless it is a necessary part of the *conservation* strategy* to maintain or enhance the *ecosystem**. Threats such as wildfire, natural pests, or *pathogens** may warrant *management activities** as a means to *conserve** the *ecosystem**.

FF Guidance: Annex G Step 5 provides some resources to assist with management decisions for *Representative Sample Areas**.

Indicator 6.5.6 The process used to designate *Representative Sample Areas** is documented and designation of *Representative Sample Areas** is reviewed as part of the review of the *management plan** (per Indicator 7.4.1) and, if necessary, updated.

Guidance: Documentation should generally be in writing. *The Organization** should describe the rationale for how decisions regarding *Representative Sample Area** designation were made.

FF Guidance: Documentation of the process used for designating *Representative Sample Areas** may be brief and less technical for *family forest* Management Units**.

Indicator 6.5.7 *Representative Sample Areas**, in combination with other components of the *conservation areas network**, comprise a minimum 10% area of the *Management Unit**.

Intent: The *conservation areas network** is established within the *Management Unit**, except in a limited number of situations that are described in Annex H.

Guidance: *The Organization** will need to establish additional areas for the *conservation areas network** if existing areas within the *Management Unit** that are intended primarily to

*conserve** environmental or *cultural** values for the *long-term** do not achieve the 10% threshold.

Annex H provides additional guidance regarding identification of areas that may be identified as part of the *conservation areas network**.

FF Guidance: See *family forest*-specific guidance in Annex H.*

Indicator 6.5.8 *Large**, contiguous *Management Units** on *public lands** establish and maintain a network of *conservation zones** and/or *protected areas** sufficient in size to maintain *species** dependent on interior core *habitats**.

FF Indicator 6.5.8 Not applicable for *family forest* Management Units**. Conformance with Criterion 6.5 for *family forest* Management Units** is addressed through Indicator 6.5.1, FF Indicator 6.5.2, Indicator 6.5.5, Indicator 6.5.6, and Indicator 6.5.7.

Guidance: The amount of interior core *forest** needed to be sufficient will depend on which *species** may be present and the shape of the *forest** block. A *forest** that is closer to a circle in shape provides much more interior core *habitat** than a *forest** block with the same number of acres but that is linear in shape (i.e., longer and thinner).

C6.6 *The Organization** shall effectively maintain the continued existence of naturally occurring *native species** and *genotypes**, and prevent losses of *biological diversity**, especially through *habitat** management in the *Management Unit**. *The Organization** shall demonstrate that effective measures are in place to manage and control hunting, fishing, trapping, and collecting. (C6.2 and C6.3 P&C V4)

Federal Lands Intent for **Criterion 6.6** Given the very large scale of many Federal administrative units, management of the *Management Unit** is expected to make significant contributions to landscape-scale conservation goals and opportunities.

Indicator 6.6.1 To the extent feasible, given the size of the ownership, management maintains, enhances, or *restores** *habitat** conditions suitable for well-distributed populations of animal *species** that are characteristic of *ecosystems** within the *landscape**.

FF Indicator 6.6.1 Not applicable for *family forest* Management Units**, due to the limited capacity of management activities to affect well-distributed populations of animal species.

PL Indicator 6.6.1.1 New *plantation** establishment does not replace, endanger, or otherwise diminish the ecological integrity of any existing natural *ecosystems** on the *Management Unit**.

PL Indicator 6.6.1.2 If greater than 5% of the *Management Unit** includes lands where natural *ecosystems** were converted to *plantations** prior to 1994, at least 15% of the total area of the *Management Unit** is maintained in or *restored** to a natural or semi-natural state.

PL Indicator 6.6.1.3 Areas established within the *Management Unit** to *restore** a natural or semi-natural state per PL Indicator 6.6.1.2 are chosen through a *landscape** analysis which prioritizes areas with the greatest *conservation** gain and long-term *restoration** objectives.

Applicability: This *Indicator** addresses *habitats** required by *species** that are not explicitly covered by Criterion 6.4, Criterion 6.8, and Indicator 6.6.7 , with particular consideration of animal *species** or *species** guilds whose populations are influenced by *forest** management at the multi-stand scale.

Intent: This *Indicator** is intended to cover *habitat** diversity of *species** not specifically associated with riparian or *aquatic habitats**, which are addressed in Criterion 6.7.

This *Indicator** addresses management for elements of *habitat** diversity across the *Management Unit** and includes consideration of diversity at the *landscape** scale. *Habitat* connectivity** at the multi-stand scale is also considered and is based on the *habitat** needs of *species** that are vulnerable to *habitat* fragmentation**.

Guidance: *Species** guilds to be considered may include: *forest** interior specialists; early *successional* forest** specialists; mature *forest** specialists; *forest** understory *species**; grassland specialists; *species** with large territories or home ranges whose populations may be dependent on specific *habitat** conditions; *species** at risk from *habitat* fragmentation**; and *species** with very restricted ranges limited by specific *habitat** conditions.

It is not expected that all *species** be identified and considered individually. Rather, management may be based on broad *habitat** conditions used by a wide range of *species** (e.g., early *successional* deciduous forests** or large patches of relatively mature coniferous *forests**) as indicated by the *ecosystems** found within the *management unit**. Consideration of individual *species** may be warranted in the case of listed *species** or other *species** of management concern, and for unique population occurrences, concentrations, remnants or use areas. Examples include *habitat** for declining neotropical migrant warblers, nesting areas, *refugia**, and deer wintering areas.

The level of detail in management and quantification of *habitat** conditions may vary with the *scale** and *intensity** of management, and, as appropriate to ownership size, *landscape** context, community type, and *natural disturbance regimes** across the *Management Unit**. Greater consideration of the area, location, and type of *habitat** is expected when *species** or *species** guilds associated with particular *habitat** conditions (e.g., large blocks of mature *forests**, or *forest** understory *species**) are adversely affected by *management activities**. At minimum, *The Organization** is expected to be able to use cover type maps as a *habitat** assessment tool. The plant community type and successional stage or *age class** data generated in Indicators 6.1.1 and 6.4.2 (e.g., a community/-successional stage matrix table) may be used as a basic measurement for this *Indicator**.

“Well-distributed” means that the population is viable. As feasible considering the *management unit** size, sites, and *ecosystems** found within the *management unit**, management provides conditions for the population to occur in multiple locations across the *Management Unit** to enhance its viability, rather than limiting the occurrence to one or very few locations.

Management unit* size considerations: The range of *species** and *habitat** conditions that can

be accommodated at any one time will vary by *management unit** size. On smaller *management units** (generally, tens to thousands of acres), management should meet the requirements of this *Indicator** by managing for *habitat** diversity by considering the role of the *management unit** within the surrounding *landscape**.

Very large *management unit** should address this *Indicator** on appropriately scaled *landscape** *planning units**. These units may be based on *ecosystem** boundaries or *landscape** features and will generally be scaled to accommodate all but extreme large-scale natural disturbances and the *habitat** requirements of animals with large home ranges (or seasonal *habitats** in the case of migratory animals). Depending on the *ecosystem** and regions, a *landscape** *planning unit** might be thousands or tens of thousands of acres in size.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest** *Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest** *Management Units**.

PL Indicator 6.6.1.1 Applicability: This indicator addresses situations where establishment and certification of new *plantations** is allowable per Criterion 6.9 and Criterion 6.10.

PL Indicator 6.6.1.2 Applicability: If less than 5% of the *Management Unit** includes lands where natural *ecosystems** were converted to *plantations** prior to 1994, the base Indicator 6.6.1 applies. If the *Management Unit** is less than 124 acres (50 hectares) in size, and all of the conditions of FSC Interpretation INT-STD-01-001_09 are met (see Annex G), the FF Indicator 6.6.1 applies.

PL Indicator 6.6.1.2 applies to *Management Units** where natural *ecosystems** were converted directly to *plantations**. However, if the natural *ecosystems** were first converted to some other land use (e.g., agriculture) and then *plantations** were established at a later point, this *Indicator** is not applicable.

Intent: Areas established within the *Management Unit** to maintain or *restore** to a natural or semi-natural state are to be managed in conformance with the base *Indicators** of this standard (including base Indicator 6.6.1).

Guidance: Any areas within the *Management Unit** that are considered part of the *Conservation Areas Network** (per Indicator 6.5.7), including *Representative Sample Areas**, may also be considered areas "maintained in or *restored** to a natural or semi-natural state" for conformance with PL Indicator 6.6.1.2.

Any areas established within the *Management Unit** as areas "maintained in or *restored** to a natural or semi-natural state" (per PL Indicator 6.6.1.2), may also be considered part of the *Conservation Areas Network** for conformance with Indicator 6.5.7.

PL Indicator 6.6.1.2 Applicability: While the areas established per PL Indicator 6.6.1.2 include areas to maintain or *restore** to a natural or semi-natural state, PL Indicator 6.6.1.3 applies only to the portion of those areas that have *restoration** objectives.

Guidance: Areas to be *restored** to a natural or semi-natural state are selected with the priority of achieving the greatest *conservation** gain but may include considerations of economic feasibility. Greatest *conservation** gain includes:

- providing mature *forest** conditions and other ecological attributes that may be under-represented across the *forest* landscape**;
- implementing regional, state, and *landscape*-level forest* ecosystem** and native fish and wildlife *habitat* conservation* and restoration** plans and objectives;
- creating *conservation zones** that provide adequate interior *forest* habitat** for native *species**;
- *restoring* riparian areas**, migration corridors among areas of existing *natural forest** or *semi-natural forest**, and unstable slopes;
- providing social and cultural values associated with *restoration** to more *natural conditions**.
- establishing *Representative Sample Areas** per Criterion 6.5

Indicator 6.6.2 At a stand or site scale, management activities* maintain or enhance plant *species composition**, distribution, and frequency of occurrence similar to those that would naturally occur on the site, given the existing climate and *soil** conditions, and the *natural disturbance regime**.

PL Indicator 6.6.2.1 All *plantations** on *public lands** maintained on *soils** which historically supported *natural forests** are managed to *restore** and maintain *natural forest** or semi-natural forest* vegetation, structure, function, and *habitats** in conformance with all Indicators of Principles 1-9, as quickly as feasible.

PL Indicator 6.6.2.2 For private land *Management Units** with *plantations** maintained on *soils** which historically supported *natural forests**, *management activities** effectively maintain the continued existence of naturally occurring *native species** and *genotypes**, and prevent losses of *biological diversity**, especially through *habitat** management within the 15% of the *management unit** maintained in or *restored** to a natural or semi-natural state per PL Indicator 6.6.1.2.

Guidance: While some site-specific *management activities** that simplify diversity may be necessary for specific *management objectives** (e.g., planting and control of competing vegetation), in general, management should strive to maintain a diversity of *native species** within stands.

*Management activities** that address maintenance of natural *species** diversity include, but are not limited to: use of natural regeneration methods; intermediate treatments that retain and encourage a diversity of *species**; use of site preparation; control of competing vegetation; type and number of *species** selected for tree planting; *conservation** of *species** at the edge of their ranges; *conservation** of representative disease-resistant pockets in areas where plant *species** are being impacted by disease; diversified planting schemes; and creating conditions for understory plants and other biota. In fire-dependent ecosystems, prescribed fire may be a beneficial management practice.

The plant *species** to be maintained or enhanced include tree *species** and understory vegetation, based on the composition of the *forest* ecosystem** native to the site.

Harvesting practices which degrade the long-term ecological or *economic viability** of the residual stand (e.g., *high-grading**), and/or do not sustain *forest* ecosystems** over the *long term**, do not meet the requirements of Indicator 5.2.4, Indicator 7.2.14, Indicator 10.5.1,

Indicator 10.11.4, nor Indicator 6.6.2.

PL Indicator Applicability: *Management Units** with only *plantations** maintained on soils which historically did not support *natural forests** are exempt from PL Indicators 6.6.2.1 and 6.6.2.3. In these situations, the base indicator is applicable to the non-*plantation** portions of the *Management Unit**.

PL Indicator 6.6.2.1 Guidance: As quickly as feasible may include completing a full rotation. A plan to restore all plantations to natural conditions may be adequate evidence of conformance.

PL Indicator 6.6.2.2 Guidance): Potential approaches to for improving *species** composition, distribution, and frequency of occurrence*:

- Thinning to provide light to the forest floor and enhance the diversity of understory *species**.
- Retention and/or recruitment of coarse *woody debris** and *snags** for wildlife *habitat**.
- Retention of islands of vegetation and advanced regeneration that are spatially arranged to provide *refugia** for wildlife and plant *species**.
- Retention of an herbaceous layer, shrub layer, and mid-story in selected areas that is allowed to develop.

Indicator 6.6.3 At a stand or site scale, management maintains, enhances, or *restores* habitat** components and associated stand structures, in abundance and distribution that could be expected from naturally occurring processes. These components:

- a. include large live trees, live trees with decay or declining health, *snags**, and well-distributed coarse down and dead *woody debris**;
- b. provide vertical and horizontal complexity;
- c. are generally representative of the *species** naturally found on the site; and
- d. are maintained over successive harvests and are buffered by green trees and other vegetation where needed and available to maintain microclimate and reduce windthrow.

*Legacy trees** where present are not harvested

Specific to the Southwest Region

Regional Supplement1 *Forest** management maintains and/or *restores** an average of at least three *snags** per acre dispersed across the *landscape**. *Snags** are representative of the larger sizes of dominant *species** and “hard” and “soft” decay classes.

PL Indicator 6.6.3 *Woody debris** and other organic matter is retained within *plantation* stands** to ensure *soil** structure and nutrient recycling.

Federal Lands Supplement1 to Indicator 6.6.3 Within actively managed stands, individual *legacy trees** are identified and marked or otherwise clearly distinguished prior to implementation of management activities.

Federal Lands Supplement2 to Indicator 6.6.3 If *legacy trees** must be harvested to address safety issues or to achieve ecological objectives, the downed trees are left on-site if ecologically appropriate.

Intent for All Regions: *The Organization** provides adequate *habitat** for *species** associated with large and/or decaying trees and dead wood. If adequate habitat components and associated stand structures are not present, *The Organization** needs to recruit them. This Indicator applies to all *stands**, *silvicultural** systems (except plantations* which are expected to conform with PL Indicator 6.6.3), and harvest objectives, including normal operations, salvage harvests, intermediate and final harvests, and *stands** regenerated by natural means or by planting.

Guidance for All Regions: Some *stands** may take some time to develop these structural elements. Evidence of conformance may include measurable goals (e.g., numbers and sizes of trees), and application of *silvicultural** systems and harvesting practices that develop and maintain these structures over time. *Long-term** passive approaches may be used to develop *snags** and coarse down and dead *woody debris** by allowing *retention** trees (e.g., large live decay trees) to die naturally, rather than girdling and/or felling trees specifically for that purpose. Trees with decay or declining health include but are not limited to cavity trees.

While *species** selected for retention should be generally representative of the *species** found on the site, flexibility in the proportions of *species** retained may be based on ecological and financial objectives.

Specific for the Ozark-Ouachita Region: *The Organization** should take into account maintenance of high-quality seed trees in the *stand**, and presence of advanced regeneration (hardwoods) before harvest.

Specific for the Pacific Coast Region: In some dry regions, retaining approximately 10 tons of *woody debris** per acre may be sufficient. In wetter regions, retaining 20 tons of *woody debris** per acre may be sufficient. *Woody debris** should be well distributed spatially and by size and decay class, with a goal of at least four large pieces (approximately 20" diameter x 15' length) per acre. Three to 10 *snags** per acre (averaged over 10 acres) should be maintained or recruited. *Snags** should be well represented by size, *species**, and decay class.

PL Indicator Applicability: This Plantation *Indicator** does not apply to *plantations** that use fire to achieve natural understory and *soil** conditions.

PL Guidance: Wherever possible, slash should be scattered back over exposed soil on skid trails and evenly dispersed across logging sets.

Indicator 6.6.4 *The Organization** develops and implements a written strategy to prevent or control *invasive species** It includes:

- a. an assessment of the presence and extent of *invasive species** and the degree of threat to *native species** and *ecosystems**;
- b. *management activities** that minimize the risk of *invasive species** establishment, growth, and spread;
- c. eradication or control of established *invasive species** populations when feasible; and
- d. monitoring of control measures and *management activities** to assess their effectiveness

in preventing or controlling *invasive species**.

FF Indicator 6.6.4 *The Organization** considers the relative risk of *invasive species** present within and proximate to the *management unit** and implements strategies to control or minimize impacts relative to the potential risks to *native species** and *ecosystems**.

Intent: This *Indicator** minimizes the risk of *invasive species** to native *ecosystems** on the *Management Unit**. All *invasive species** need to be considered, including non-forest* (e.g. roadside, wetland, etc.) *invasive species*. Depending on the specific situation, if *invasive species** pose a low risk for negative effects on native *ecosystems**, implementation of *management activities** to address the *invasive species** may not be necessary.

Guidance: A combination of assessment methods may be appropriate, such as including *invasive species** in periodic *forest** inventories, screening sites during harvest planning, and informal observations by *forest** workers in the field.

In prioritizing *invasive species** control, *The Organization** should consider the risk of *invasive species** infestations relative to other threats to the *forest** (e.g., fire, insects, disease, etc.). Control measures should match the scale of the infestation and the potential risks and/or actual impacts to *native species** and *ecosystems**. The applicable state agency will likely have resources to assist with this kind of triage approach.

State listings of *invasive species** are recommended as sources of information.

Indicator 6.6.5 When *even-aged silvicultural** systems are employed and during salvage harvests, the *harvest opening** sizes and proportion and configuration of live trees and other native vegetation retained within the *harvest unit** are consistent with characteristic *natural disturbance regime(s)**, unless *retention** at a lower level is necessary for the purposes of *restoration** or rehabilitation. The regional supplementary requirements that follow also apply for portions of *Management Units** within the specified FSC US Regions (per Annex B).

Federal Lands Supplement1 to Indicator 6.6.5 When *even-aged silviculture** systems are employed, such systems contribute to the attainment of ecological and/or restoration objectives.

Federal Lands Supplement2 to Indicators 6.6.5 The ecological rationale for the use of *even-age silviculture** and the size and distribution of even-age harvest areas within the *Management Unit**, as well as structural retention within those harvest areas, is based on *best available information** and documented.

Guidance for All Regions: The method of *retention**, especially patch size and location, should generally reflect the type of live vegetation that would be found given *natural disturbance regimes** and should be sufficient to provide a variety of “lifeboat” conditions for sensitive understory plant *species**, fungi, and lichens and *habitat** elements for animals. When feasible, retained vegetation should be located to protect *snags**, down *woody debris**, and other *retention** components from windthrow, and to maintain their microclimate and desired function.

*Retention** objectives and requirements will vary with *harvest unit** size, the condition of surrounding *stands** and *silvicultural** systems applied to those *stands**, and relative rarity of the *ecological community**. For example, no *retention** may be needed if the *harvest unit** is small and the adjacent *stand** will be managed with an uneven-aged system. The levels of green-tree *retention** depend on such factors as: *harvest opening** size, *legacy trees**, adjacent *riparian areas**, slope stability, upslope management, presence of critical *refugia**, and *scale** and *intensity** of harvesting across the *Management Unit**. Where *stands** have been degraded, less *retention** can be used to improve both merchantable and non-merchantable attributes. However, it is generally expected that the level of *retention** will exceed the minimum requirements of this *Indicator** and will include trees of all sizes as well as understory plants.

*Retention** should be distributed as both clumps and dispersed individuals, unless justified by the site conditions of the stand. “Clump” *retention** may include *riparian management zones**, wildlife corridors and other special zones. “Dispersed” *retention** may include desirable overstory and understory *species** while allowing for regeneration of shade-intolerant and intermediate *species** consistent with overall management objectives. Retained trees should comprise a diversity of *species** and size classes, which includes large and old trees.

*Riparian Management Zones** can be considered as part of *retention** if they are located within *harvest openings** and provide habitat described in the indicator. If the *Riparian Management Zones** are on the edge of the *harvest opening**, they should not count toward fulfilling the intent of the Indicator.

For catastrophic events (i.e. events that leave less than the accepted retention for the applicable region and *forest** type), all trees that are live and healthy are expected to be retained during site *restoration** and/or salvage activities. Dead trees are expected to be retained in sufficient number as to be conformant per Indicator 6.6.3.

PL Applicability: Plantation Indicators for FSC US Regions that have Regional Supplementary Requirements are provided in context with the Regional Supplementary Requirements. In regions that have regional supplementary requirements, conformance is with the applicable Plantation Indicators instead of Indicator 6.6.5 and the associated Regional Supplementary Requirements.

In regions that do not have Regional Supplementary Requirements (i.e., Lake States and Northeast), conformance is with the Plantation Indicators which follow immediately (i.e., PL Indicators 6.6.5.1, 6.6.5.2, and 6.6.5.3) instead of Indicator 6.6.5.

PL Indicator 6.6.5.1 *Harvest openings** lacking within-*stand** *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

Intent: the goal of the language pertaining to *restoration** is to allow *silvicultural** treatments, including *harvest openings** greater than the limits described above, that are important to *forest** health and *restoration** as long as they are justified. The existence of plant pests and *pathogens** as well as other *restoration** efforts may lead to conditions that warrant departures

from these limits.

Guidance: The average *harvest opening** size should be calculated over the 5 year time period between full FSC re-assessments (or over the last 5 years for new FSC assessments).

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

Guidance: *Retention** for *protecting** present ecological values, such as streams is of primary importance. *Retention** for wildlife purposes is based on the needs of *species** native to and naturally present at the site. The levels of green-tree *retention** depend on such factors as *habitat** *connectivity** and needs of representative plant and animal *species**. *Retention** is distributed as clumps, strips, and dispersed individuals, appropriate to site conditions. Retained trees comprise a diversity of *species** and size classes, which includes large and old trees, when available.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

Applicability: This requirement applies to *harvest units** within an ownership (harvests on adjacent ownerships need not be accounted for). An area adjacent to a *regeneration harvest** may be harvested prior to these green-up conditions providing that the sum area of the opening is not greater than the opening size restrictions stated in Plantation Indicator 6.6.5.1 (e.g., 80 acres).

Intent: The goal is to create or enhance a mosaic of *habitat** types and ages.

Specific to the Appalachian Region

Regional Supplement1 When *even-aged silviculture** (e.g., clearcut, seed tree, regular or irregular shelterwood, deferment cut) is employed, live trees and native vegetation are retained and *harvest opening** sizes created within the *harvest unit** are in a proportion and configuration consistent with the characteristic *natural disturbance regime** in each community type as evidenced by *Best Available Information** and documented in the *management plan**, unless *retention** at a lower level is necessary for *restoration** or rehabilitation purposes.

PL Indicator 6.6.5.1 *Harvest openings** lacking within-stand* *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

Guidance: *Even-aged silviculture** should be used only where naturally occurring *species** are maintained or enhanced. *Retention** within *harvest units** can include *riparian area* buffers** and other special zones. Where *stands** have been degraded, or where harvest practices implemented by previous management created conditions that limit *silvicultural** options (e.g., shelterwood establishment), less *retention** may be used with the intent of improving future *stand** conditions or releasing advanced regeneration. When considering maximum *harvest opening** size with no *retention**, *The Organization** should consider potential *aesthetic** impacts, *age class** diversity on the *landscape**, regeneration goals, and *natural disturbance patterns**. Generally, individual *harvest openings** with no *retention** should average less than 10 acres across the *Management Unit** in a given year, and no single *harvest opening** without *retention** should exceed 25 acres.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Specific to the Ozark-Ouachita Region

Regional Supplement2 *Even-aged silviculture** is employed on no more than 10% of the timber-producing area within the *Management Unit** per decade.

Regional Supplement3 When *even-aged silviculture** is employed, diameter-limit cuts are not implemented, and natural regeneration is required, except when necessary for restoring specific *habitats**, *stand** types, or *species**. Additionally:

In the Ozark subregion, *harvest openings** are limited to 2 acres with no *retention**, and 20 acres with *retention** of at least 20%–30% of the canopy.

In the Ouachita subregion, *harvest openings** are limited to 20 acres.

PL Indicator 6.6.5.1 *Harvest openings** lacking within-*stand** *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Specific to the Pacific Coast Region

Regional Supplement4 Within *harvest openings** larger than 6 acres, 10%–30% of pre-harvest basal area is retained. The levels of green-tree retention depend on such factors as: *harvest opening** size, *legacy trees**, adjacent *riparian areas**, slope stability, upslope management, presence of critical *refugia**, and extent and *intensity** of harvesting across the *Management Unit**. *Retention** is distributed as clumps and dispersed individuals, appropriate to site conditions. Retained trees comprise a diversity of *species** and size classes, which includes large and old trees. *Harvest openings** in even-aged stands average less than 40 acres. No individual *harvest opening** is larger than 60 acres.

Regional Supplement5 *Even-aged silviculture** may be employed where:

- a. *native species** require openings for regeneration or vigorous young-stand development;
- b. it *restores** the *native species** composition; or
- c. it is needed to *restore** *structural diversity** in a *landscape** lacking openings while maintaining *connectivity** of older intact *forests**.

Regional Supplement6 For even-aged regeneration harvests, if the rotation length does not allow a stand to achieve 80% of *culmination of mean annual increment** compared to natural *stands** of the same *forest** type and site class, *retention** is at the upper end (i.e., >20%) of the range required (in Regional Supplement4). Where rotation lengths meet or exceed *culmination of mean annual increment**, *retention** may be within the lower end (i.e. 10%–20%) of the range required.

Guidance: If the *Management Unit** does not have growth and inventory data for similar natural *stands** on the *Management Unit** needed to establish *culmination of mean annual increment**, growth and inventory data from similar *forest** types and site classes of natural *forests** off the *Management Unit** should be used to establish *culmination of mean annual increment**. Historical data from *public lands** such as National Forests may be the best source of information for calculating *culmination of mean annual*

*increment**.

Regional Supplement7 No *harvest opening** adjacent to a logged even-aged *harvest opening** may be harvested using an even-aged regeneration method unless/until the prior even-aged *harvest opening** is adequately stocked by a *stand** of trees in which the dominant and co-dominant trees average at least 5 feet tall and three years of age from the time of establishment on the site, either by planting or by natural regeneration. If the requirement to achieve adequate stocking is to be met with trees that were present at the time of harvest, there is a period not less than five years following the completion of operations before an adjacent even-aged regeneration harvest may occur.

PL Indicator 6.6.5.4 On *plantations** maintained on *soils** which historically supported *natural forests**, a minimum average of four dominant and/or co-dominant trees and two *snags** per acre are retained in all *harvest openings**. Where sufficient *snags** do not exist, they are recruited. *Harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Specific to the Mississippi Alluvial Valley Region

Regional Supplement8 When *even-aged silviculture** is employed, the average size of the *harvest unit** within the *Management Unit** is no larger than 40 acres; *retention** is established in *harvest units** adjacent or nearly adjacent to another logged even-aged regeneration unit; and *harvest openings** with no *retention** are limited to 20 acres. For most *stand** types, *retention** is 20%–30%, but less *retention** is appropriate for *stands** dominated by shade-intolerant *species**.

PL Indicator 6.6.5.1 *Harvest openings** lacking within-*stand** *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Specific to the Rocky Mountain Region

Regional Supplement9 *Even-aged silviculture** is employed only where it is ecologically appropriate to the *forest** type based on *best available information**, or when human activity (e.g., high grading, fire exclusion, introduction of *non-native species**) has created an imbalance in the *natural disturbance regime** that can be remedied only by this method.

PL Indicator 6.6.5.1 *Harvest openings** lacking within-stand* *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Specific to the Southwest Region

Regional Supplement10 *Even-aged silviculture** is employed only in predominantly even-aged *forest** types, such as aspen.

Regional Supplement11 When *even-aged silviculture** is employed, the size of *harvest openings** is based on the natural regeneration requirements of the *species** on the site, and on the requirements to protect the site (e.g., *soil**, hydrology).

PL Indicator 6.6.5.1 *Harvest openings** lacking within-stand* *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.3 Before a regeneration harvest is conducted, regeneration in adjacent forested areas (*natural forest**, *semi-natural forest** or *plantation**) on the *Management Unit** must be of the subsequent advanced successional habitat stage, or exceed ten feet in height, or achieve canopy closure along at least 50% of its perimeter.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Specific to the Southeast Region

Guidance: *Even-aged silviculture** should not be used in *semi-natural forest* stands** where the majority of trees are greater than 100 years old, or *natural forests**. *Even-aged silviculture** may be used in *semi-natural forest**, even-aged *stands** of hardwood, and cypress, but the size of *harvest openings** should be conservative. It also may be used in even-aged *stands** of pine and pine/hardwood, but the size of *harvest openings** should not be higher than the limit for *plantations** and should be justified by natural regeneration requirements.

Exceptions to the above may be made in order to meet ecological objectives. For example, *Even-aged silviculture** may be used in *natural forest* stands** as a tool for maintaining *ecosystems** that are dependent on large, contiguous *harvest openings**, when supported by *best available information**.

PL Indicator 6.6.5.1 *Harvest openings** lacking within-stand* *retention** are limited to a 40 acre average and an 80 acre maximum. Exceptions for *harvest openings** larger than 80 acres are justified using *best available information**. The average for all *harvest openings** (with and without *retention**) does not exceed 100 acres. Departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL Indicator 6.6.5.2 On *harvest openings** larger than 80 acres that are justified per PL Indicator 6.6.5.1 live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic *natural disturbance regime** in each community type, unless *retention** at a lower level is necessary for *restoration** purposes.

PL Indicator 6.6.5.5 *Harvest units** are arranged to support viable populations of *native species** of flora and fauna. For hardwood *ecosystems**, regeneration in prior *harvest openings** reaches a mean height of at least ten feet or achieves canopy closure before adjacent areas are harvested. For southern pine *ecosystems**, (e.g. upland pine forests, pine flatwoods forests, sand pine scrub), *harvest openings** are located, if possible, adjacent to the next youngest stand to enable early *successional** or groundcover-adapted *species** to migrate across the early *successional** continuum.

PL Intent Applicability & Guidance: See notes associated with PL Indicators 6.6.5.1, 6.6.5.2 and 6.6.5.3 that precede the Regional Supplementary Requirements for Indicator 6.6.5.

Indicator 6.6.6 For purposes of *restoration**, *The Organization** has the option to follow either of the below approaches for justifying departures from the *harvest opening** size limits associated with Indicator 6.6.5 and associated regional supplementary requirements.

1. *The Organization** develops a plan that is:
 - a. developed by *experts** in ecological and/or related fields (e.g., wildlife biology, hydrology, landscape ecology, forestry/silviculture*);
 - b. based on *Best Available Information** regarding *natural disturbance regimes** specifically for the *Management Unit**, if available, and regarding similar contexts if *Management Unit**-specific information is not available;
 - c. spatially and temporally explicit and includes maps of proposed *harvest openings** or areas;
 - d. able to demonstrate that the variations will result in equal or greater benefit to wildlife, water quality, *ecosystem** processes, and other values compared to Indicator 6.6.5 (i.e., the base indicator, not the regional supplementary requirements), including for sensitive and *rare, threatened, and endangered species**; and
 - e. developed in collaboration with affected *rights holders**, *affected stakeholders**, and *interested stakeholders**.
2. Harvests, including *harvest opening** sizes up to 25% larger than the applicable regional supplementary requirement, are implemented within the scope of a *restoration** or recovery plan that is published, *Best Available Information**-based, and *landscape**-scale, and that plan is endorsed by at least one national, state or tribal government agency that has responsibility for *forest** resource *conservation** within the *landscape** of the *Management Unit**. Additionally, *The Organization**:
 - a. notifies FSC US regarding its intent to implement this indicator/option;
 - b. *engages** with *stakeholders** and *Native American Indigenous Peoples** who have experience with developing *restoration** plans and/or implementing

- restoration** activities within *landscapes** similar to that of the *Management Unit** to collect input regarding the harvests;
- c. hosts a *forest** tour of the proposed *restoration**, inviting *interested stakeholders** and *Native American Indigenous Peoples** from *landscapes** similar to that of the *Management Unit**; and
 - d. publicly shares the parts of the *management plan** (not just the public summary per Indicator 7.5.1) that are applicable to the *harvest opening** size and retention thresholds that will be implemented.

TARGETED CONSULTATION QUESTIONS:

- Regarding item (d) of the first option (#1) of Indicator 6.6.6, *do you have real world or hypothetical examples (please specify which) that may be used to help establish thresholds for “equal or greater benefit”?*
- The second option (#2) of Indicator 6.6.6 emphasizes engagement with stakeholders (i.e., items (b) and (c)) to increase transparency and communication regarding management decisions of this nature. However, items (b) and (c) offer somewhat similar approaches to fulfilling the expectations of this option. *In your opinion, which of these two approaches (i.e., item (b)’s engagement, or item (c)’s forest tour), or both, best achieve the intent of the indicator?*

Applicability: This *Indicator** is applicable only under situations where *The Organization** has opted to develop rationale for *harvest opening** sizes that depart from explicit regional limits set forth in the regional supplementary requirements of Indicator 6.6.5.

This indicator may not be applied within *plantations**.

Indicator 6.6.7 When a *rare ecological community** is present, *The Organization** maintains, *restores**, or enhances community viability. Based on the vulnerability of the existing community, *conservation zones** and/or *protected areas** are established where warranted.

Applicability: This *Indicator** applies to occurrences of rare communities known to state Natural Heritage Programs and occurrences identified in planning or implementing *forest** operations.

In states where S1, S2, or S3 communities are not mapped by the Natural Heritage Program, the best available data for S1–S3 communities’ occurrences and finest resolution of classification commonly available in that state should be used. See Guidance and Intent in Criterion 6.1 for information on S1–S3 classifications, as well as the Glossary listing for *rare, threatened, and endangered species**.

Rare communities include some S3 communities. Indicator 6.1.1 outlines the process for identifying which S3 communities must be *protected** and managed as a rare community.

Guidance: *Conservation** measures are based on *best available information** as necessary to

achieve the *conservation** goal of the *Indicator**.

Field foresters should have an understanding of rare *forest** communities that may be encountered during management activities*. At minimum, this generally includes classification at the Alliance or Natural Community levels, although a more coarse classification may be appropriate in cases where community types are highly diverse and difficult to classify.

Indicator 6.6.8 *The Organization** demonstrates that effective strategies are in place to manage and control hunting, fishing, trapping and collecting of *native species**.

C6.7 *The Organization** shall *protect** or *restore** natural watercourses, *water bodies**, *riparian zones**, and their *connectivity**. *The Organization** shall avoid negative impacts on water quality and quantity and mitigate and remedy those that occur. (C6.5 and 10.2 P&C V4)

Intent: This Standard differentiates between “*riparian area**” and “*riparian management zone**” (i.e., RMZ), but recognizes that this is an artificial construct, as there are few situations in the United States where the purposes of these two types of areas are not overlapping and/or intermixed—the intent of management is the differentiator between the two terms. *Riparian areas** are delineated and managed to conserve the plant and wildlife *habitat** characteristics of the area and to protect adjacent *aquatic habitats** and *ecosystems**. *Riparian management zones** are designed to *protect** *water quality** and *aquatic habitat**. *Riparian areas** vary in width according to biotic and abiotic characteristics and may be wider than a *riparian management zone**. Both *riparian areas** and *riparian management zones** encompass the interface between upland communities, which include complex *ecosystems** that provide food, *habitat**, and movement corridors for both aquatic and land communities. In practice, on FSC-certified *Management Units**, most *riparian management zones** function as *riparian areas**.

Regionally, various terms are used in place of *riparian management zone**, including *streamside management zones** (SMZs), special management zones, buffers, and/or *buffer zones** (when specifically in reference to *water quality** and *aquatic habitats**).

Indicator 6.7.1 Management maintains, enhances, and/or *restores** the plant and wildlife *habitat** of *riparian areas** to provide:

- a. *habitat** for aquatic *species** that breed in surrounding uplands;
- b. *habitat** for predominantly terrestrial *species** that breed in adjacent *aquatic habitats**;
- c. *habitat** for *species** that use *riparian areas** for feeding, cover, and travel;
- d. *habitat** for plant *species** associated with *riparian areas**; and
- e. stream shading and inputs of wood and leaf litter into the adjacent aquatic *ecosystem**.

Guidance: Aquatic *species** that breed in surrounding uplands include turtles and cavity-nesting ducks; terrestrial *species** that breed in *aquatic habitats** include some amphibians; *species** that use *riparian areas** for feeding, cover, and travel include some birds, mammals, reptiles, amphibians, and insects.

In general, it is expected that areas for *habitat** management will vary in width with ecological

importance and with the *intensity** of timber harvest adjacent to the areas . *The Organization** may use ecologically appropriate guidelines, such as those that are available in some states or regions, or other approaches (e.g., focal species) to determine areas width and characteristics. Flexibility rather than uniform areas widths is appropriate if *best available information** indicates that it will maintain or *restore** ecological function.

Indicator 6.7.2 *Management activities** meet or exceed *best management practices** (i.e., BMPs) for the protection of water quality and quantity.

Intent: *Best management practices** include both voluntary and mandatory state and regional *best management practices**, as well as analogous terms used in certain states (e.g., Site Level Guidelines).

Indicator 6.7.3 The *transportation system** is designed, constructed, and maintained to reduce and minimize short-term and *long-term** environmental impacts and adverse *cumulative effects**. Access and off-road travel is managed, while allowing for customary uses and *use rights**. Effort is made to identify and prioritize roads for closure and rehabilitation.

Environmental impacts to consider include:

- a. road density;
- b. *soil** and water disturbance, including *erosion** and sediment discharge to streams and other *waterbodies**;
- c. fragmentation of wildlife *habitat** and migration corridors; and
- d. area converted to roads, landings, and skid trails.

FF Indicator 6.7.3 The Organization reduces environmental impacts of the transportation system by minimizing *soil** and water disturbance, including *erosion** and sediment discharge to streams, and making efforts to rehabilitate degraded roads.

Federal Lands Supplement1 to Indicator 6.7.3 As part of the *Management Unit***'s transportation system planning, the applicable Federal agency has:

- a. an up-to-date road inventory, and
- b. an assessment of adequacy of crossings (e.g., culverts, bridges) and implements a priority list of renovations.

Federal Lands Supplement2 to Indicator 6.7.3 The applicable Federal agency has a strategy for prioritizing which roads to reclaim first, decommissioning unneeded roads, maintaining roads that are needed, and limiting new road establishment to the extent possible.

Guidance: Cooperative transportation planning with agencies, such as watershed management councils, is encouraged to minimize negative *cumulative impacts** across the *landscape**.

Guidance for **Federal Lands Supplement2 to Indicator 6.7.3**: Road reclamation focuses on returning the disturbed lands to a use that is consistent with *long-term** *management objectives**.

Indicator 6.7.4 Stream, *wetland** and other *waterbody** crossings are avoided when possible. Unavoidable crossings are located and constructed to minimize short-term and *long-term** impacts on *water quality**, hydrology, and fragmentation of *aquatic habitat**. Crossings do not impede the movement of *aquatic species**. Temporary crossings are *restored** to original hydrological conditions when operations are finished.

Federal Lands Supplement to Indicator 6.7.4 New, permanent crossings (culverts and bridges) are sized for calculated peak 100-year flows, or greater flows, based on *best available information**. Existing crossings are assessed for their capacity and prioritized for upgrading if they do not meet the established flow size threshold.

Guidance: Crossing structures should be designed, based on *best available information**, to match the natural stream width, depth, velocities, and substrate through the crossing structure, as anticipated for the life of the structure.

*The Organization** should design culverts and take other steps to ensure fish passage in order to maintain or enhance the *biodiversity** of the stream, although it is understood that there may be some situations where free upstream and downstream passage is not possible.

Specific for the Pacific Coast Region: Stream crossings should be designed to accommodate a 100-year peak flood event or to limit the consequences of an unavoidable failure.

Indicator 6.7.5 Using *Best Available Information**, *The Organization** documents and implements *riparian management zone** (i.e., RMZ) guidelines that are adequate for *protecting** and *restoring** *water quality** and hydrologic conditions in all *water bodies** and hydrologically sensitive areas (e.g., rivers and stream corridors, *wetlands**, *vernal pools**, seeps and springs, lake and pond shorelines, karst). The guidelines include vegetative *buffer** widths and *protection** measures that are acceptable within those *buffers**. The regional supplementary requirements that follow also apply for portions of *Management Units** within the specified FSC US Regions (per Annex B).

Guidance for All Regions: Guidelines, with consideration of the Regional Supplementary Requirements below, should meet or exceed regional recommendations (e.g., water quality *best management practices**) as necessary to meet the objective of water quality *protection** and *restoration** measures. Protection measures that should be considered in all situations include::

- developing *buffer** widths sufficient to *protect** and *restore** *water quality**, considering: temperature, sedimentation, chemical runoff, recruitment of *woody debris** and stream structure, and the timing of water flows sufficient to meet water quality standards for both humans and *aquatic species**, including invertebrates, fish, and amphibians;
- providing filter strips that vary with slope and *soils** that are sufficient to trap sediment from upslope sites;
- minimizing *soil** disturbance;
- providing adequate shade to protect water temperature;
- minimizing or precluding harvest within core portions of *buffer** strips;
- protecting stream banks;

- maintaining tree cover and minimizing disturbance of floodplain areas to ensure that proper aquatic function will be provided when channels shift;
- regulating harvest and road construction on upslope areas to ensure proper hydrological function, including the timing, intensity, and location of water delivery.

Specific to the Appalachian Region

Applicability: The *riparian management zone** is designed to allow harvesting and provide flexibility for *forest** management.

Regional Supplement1 All *perennial streams** have *riparian management zones** (i.e., RMZs or buffers) that include an inner *riparian management zone** and an outer *riparian management zone**. *Riparian management zone** sizes are minimum widths that are likely to provide adequate riparian *habitat** and prevent siltation. If functional riparian *habitat** and minimal siltation are not achieved by *riparian management zones** of these dimensions, wider *riparian management zones** are needed.

Table 1. Widths of inner and outer <i>riparian management zones</i>*. Widths of outer <i>riparian management zones</i>* are applicable where data do not support narrower widths¹					
Riparian zone type	SLOPE CATEGORY				
	1%–10%	11%–20%	21%–30%	31%–40%	41% +
Inner Zone (perennial)	25	25	25	25	25
Outer Zone (perennial)	55	75	105	110	140
Total for perennial	80	100	130	135	165
Zone for Intermittent	40	50	60	70	80

¹All distances are in feet -slope distance and are measured from the high-water mark.

Regional Supplement2 The inner *riparian management zone** for “non-high-quality waters” (see state or local listings describing the highest-quality waters in the state or region) extends 25 feet from the-high water mark. Single-tree selection or small group selection (two to five trees) is allowed in the inner *riparian management zone**, provided that the integrity of the stream bank is maintained and canopy reduction does not exceed 10% (90% canopy maintenance). Trees are directionally felled away from streams. Note: The inner *riparian management zone** is designed as an essentially no-harvest zone, while allowing the removal of selected high-value trees or the placement of trees into the stream specifically for stream restoration.

Regional Supplement3 Along *perennial streams** that are designated as “high-quality waters” (see state or local listings describing the highest-quality waters in the state or region), no harvesting is allowed in the inner *riparian management zone** (25 feet from the high-water mark), except for the removal of windthrown trees or the placement of trees into the stream specifically for stream restoration.

Regional Supplement4 Outer *riparian management zones**, outside and in addition to inner *riparian management zones**, are established for all *intermittent streams** and *perennial streams**, as well as other surface water. When the necessary information is available, the width of a *riparian management zone** is based on the landform, erodibility of the *soil**, stability of the slope, and stability of the stream channel as necessary to protect *water quality** and repair *habitat**. When such specific information is not available, the width of the *riparian management zone** is calculated according to Table 1.

Regional Supplement5 Harvesting in outer *riparian management zones** is limited to single-tree and group selection, while maintaining at least 50% of the overstory.

Regional Supplement6 The entire *riparian management zone** of *intermittent streams** is managed as an outer *riparian management zone**.

Regional Supplement7 The *management activities** do not result in observable siltation of intermittent streams.

Specific to the Ozark-Ouachita Region

Regional Supplement8 Table 2 provides *riparian management zone** (i.e., streamside management zone) widths.

Table 2. Riparian management zone* widths for perennial and intermittent watercourses^{1,2}						
Soil erosion* susceptibility³	Slope Category (%)					
	0%	10%	20%	30%	40%	50%
Slight	75	75	80	105	130	155
Moderate	75	75	100	140	170	200
Severe	75	90	130	170	210	250

¹ No-cut zone rules are covered in the text of Regional Supplement9.

² Widths are horizontal measures (per side) in feet from the mean high-water mark.

³ Soil *erosion** susceptibility is defined at the series level by USDA-NRCS State Soil Surveys.

Regional Supplement9 *Riparian management zones** are established for all *perennial streams** and *intermittent streams**. Single-tree harvest may be carried out in *riparian management zones**, except in no-cut zones. A minimum of 80% crown cover is maintained throughout the *riparian management zone**. A 10-foot no-cut zone (from each bank) is established to maintain streambank stability for *perennial streams** and *intermittent streams** unless cutting is specifically for the purpose of placing trees into the stream for the purpose of stream restoration.

Specific to the Southeast Region

Regional Supplement10 *Riparian management zones** (i.e., streamside or special management zones) are specifically described and/or referenced in the *management plan**, included in a map of the *forest** management area, and designed to *protect** and/or *restore** *water quality** and aquatic and riparian populations and their *habitats**. At

a minimum, management of *riparian management zones** has the following characteristics:

- a. design and management is based on state *best management practices**.
- b. width reflects changes in *forest** condition, stream width, slope, erodibility of *soil**, and potential hazard from windthrow along the length of the watercourse.
- c. provide sufficient vegetation and canopy cover to filter sediment, limit nutrient inputs and chemical pollution, moderate fluctuations in water temperature, stabilize stream banks, and provide *habitat** for riparian and aquatic flora and fauna.
- d. Characteristic diameter-class distributions, *species** composition, and structures are adequately maintained within the *riparian management zone**.

Specific to the Mississippi Alluvial Valley Region

Regional Supplement 11 *Riparian management zones** are created and maintained in accordance with Table 3.

Table 3 Riparian Management Zone* Widths¹							
		Slope					
Stream Class	Soil erosion* susceptibility²	0%	10%	20%	30%	40%	50%
		Total RMZ width (ft) per side³					
Perennial	Slight	75	75	80	105	130	155
	Moderate	75	75	100	140	170	200
	Severe	75	90	130	170	210	250
Intermittent	All erosion* categories	30	30	30	30	30	30

¹ Table 3 was modeled after the Forestry Best Management Practices of the State of Mississippi, publication #107.

² Soil erosion susceptibility is defined at the series level by USDA-NRCS State Soil Surveys.

³ Distances are horizontal measures per side of stream, and are measured from the mean high-water mark as evidenced by lack of terrestrial vegetation.

Regional Supplement12 For *perennial streams**, the inner zone of the *riparian management zone** is defined as the area within 30 feet of the mean high-water mark. Within that zone, timber harvest is limited to single-tree selection, and canopy cover is sufficient to maintain shade adequate to moderate water temperature. Harvesting in this zone maintains the composition, structural complexity, and functions of the *riparian management zone**.

Regional Supplement13 For *perennial streams**, timber harvest in the outer zone of the *riparian management zone** is limited to either single-tree selection or small group selection. Canopy cover and vegetation are maintained to provide filtration of runoff into a stream.

Regional Supplement14 Within intermittent *riparian management zones**s, *regeneration harvest** may be conducted provided other vegetation and/or ground cover

remains to protect the *forest** floor and the stream bank in a manner that will maintain *water quality**.

Regional Supplement15 Prescribed burning is allowed in *riparian management zones** when *water quality** and the structures and composition of the *forest** within the *riparian management zones** can be maintained.

Specific to the Southwest Region

Regional Supplement16 *Riparian management zones** (i.e., *buffer zones**) are established for all natural streams and watercourses with definable banks, and for ponds, lakes, and *wetlands**. *Riparian management zones** are measured horizontally (in such a way that ground slope does not reduce the distance) from the following:

- a. the upland edge of the riparian vegetation (if present);
- b. each bank of a stream or water course (in the absence of riparian vegetation); or
- c. the edge of the *wetland** or *water body**. (Note: Where *wetlands** abut watercourses, the edge of the *riparian management zone** is measured from the edge of the *wetland**.)

Regional Supplement17 *Riparian management zone** width is determined as follows:

- a. where riparian vegetation is present, at least 30 feet beyond the edge of the riparian vegetation or 100 feet from the stream edge, whichever is greater;
- b. where riparian vegetation is not present, at least 50 feet on either side of all *perennial streams**, or *intermittent streams** that flow two to three or more months of the year, or along the edge of *water bodies**; such *riparian management zones** extend wider on steep or erosive slopes;
- c. where sideslopes exceed 35%, the width is at least 100 feet;
- d. as necessary along ephemeral drainage patterns that exhibit a definable bank to *protect** the functions of the *riparian management zone**; and
- e. width is increased in areas of *riparian management zone** sensitivity (e.g., unstable slopes), which is ultimately determined by the potential for resource damage or degradation of the functions of the *riparian management zone**.

Regional Supplement18 Management in the *riparian management zone** maintains, enhances, or *restores** the condition of the *riparian area** or streamside zone. For example:

- a. Thinning from below and planting trees may be carried out for purposes of controlling *erosion** and/or *restoration**.
- b. Ecological, aquatic, and riparian functions (e.g., the maintenance or restoration of riparian microclimates) are demonstrably the priority *silvicultural** objective of any commercial harvesting. 6.5.e.1.c

Specific to the Rocky Mountain Region

Applicability : Some discretion may be applied to stream segments that support no fish, rarely contribute surface flow to other streams or other *water bodies**, and

normally have surface flow less than six months of the year. In such instances *riparian management zone** widths should follow those designated, but management restrictions should be more flexible, as long as riparian concerns continue to receive highest priority. *The Organization** should identify and provide adequate *protection** for all streams, lakes, *wetlands**, and associated *riparian areas**, including through establishment of *riparian management zones**, and restore them to their properly functioning condition, when feasible. When *riparian management zones** are established, the extent and protection that they provide should be adequate to serve all the functions and objectives of such zones in *forests** under *natural conditions**. These functions include, but are not limited to: 1) control of *erosion** of *soil** and organic debris; 2) control of stream sedimentation; 3) stabilization of surface water and groundwater flow fluctuations; 4) stabilization of water temperatures; 5) provision of organic debris (including large-diameter wood) for the aquatic *habitat**; and 6) provision of *habitat** (shelter, water, food, travel corridors, etc.) for many *species** of plants and animals.

Regional Supplement19 *Riparian management zone** (i.e., SMZ) width is at least 50 feet on either side of the ordinary high-water mark, extending wider on steep or erosive slopes. Where slopes of *riparian management zones** exceed 35%, the *riparian management zone** boundary is at least 100 feet. If wetlands touch the *riparian management zone**, then the *riparian management zone** boundary is extended to include the *wetland**. *Riparian management zone** width is extended wherever necessary to protect riparian functions.

Regional Supplement20 Management in the *riparian management zones** takes a conservative approach that puts aquatic and riparian concerns above timber consideration. Logging operations retain at least half of the merchantable trees, representative of the pre-harvest stand, with heavier *retention** of bank-edge and leaning trees, shrubs, and sub-merchantable trees.

Specific to the Pacific Coast Region

Guidance: This section uses the following definitions.

- **Category A stream:** A stream that supports or can support populations of native fish and/or provides a domestic water supply.
- **Category B stream:** *Perennial streams** that do not support native fish and are not used as a domestic water supply.
- **Category C stream:** An *intermittent stream** that nevertheless has sufficient water to host populations of non-fish aquatic species.
- **Category D stream:** A stream that flows only after rainstorms or melting snow and does not support populations of aquatic species.

Regional Supplement21 For Category A streams, and for lakes and wetlands larger than 1 acre, an inner *riparian management zone** (i.e., *buffer zone**) is maintained. The inner *riparian management zone** is at least 50 feet wide (slope distance) from the active high-water mark (on both sides) of the stream channel and increases depending on

*forest** type, slope stability, steepness, and terrain. Management activities in the inner *riparian management zone** :

- a. maintain or *restore** the native vegetation;
- b. are limited to single-tree selection *silviculture**;
- c. retain and allow for recruitment of large live and dead trees for shade and stream structure;
- d. retain canopy cover and shading sufficient to moderate fluctuations in water temperature, to provide habitat for the full complement of aquatic and terrestrial *species** native to the site, and maintain or *restore** riparian functions;
- e. exclude use of heavy equipment, except to cross streams at designated places, or where the use of such equipment is the lowest impact alternative;
- f. avoid disturbance of mineral *soil** (where disturbance is unavoidable, mulch and seed are applied before the rainy season);
- g. avoid the spread of *pathogens** and noxious weeds; and

Regional Supplement22 For Category A streams, and for lakes and wetlands larger than 1 acre, an outer *riparian management zone** is maintained. This buffer extends from the outer edge of the inner *riparian management zone** to a distance of at least 150 feet from the edge of the active high-water mark (slope distance, on both sides) of the stream channel. In this outer *riparian management zone** , harvest occurs only where:

- a. single-tree or group selection *silviculture** is used;
- b. post-harvest canopy cover maintains shading sufficient to moderate fluctuations in water temperature, provide *habitat** for the full complement of aquatic and terrestrial *species** native to the site, and maintain or restore riparian functions;
- c. disturbance of mineral *soil** is avoided (where disturbance is unavoidable, mulch and seed are applied before the rainy season).

Regional Supplement23 For Category B streams, a 25-foot (slope distance) inner *riparian management zone** is created and managed according to provisions for inner *riparian management zones** for Category A. A 75-foot (slope distance) outer *riparian management zone** (for a total buffer of 100 feet) is created and managed according to provisions for outer *riparian management zone** for Category A.

Regional Supplement24 For Category C streams, and for lakes and wetlands smaller than 1 acre, a *riparian management zone** 75 feet wide (on both sides of the stream) is established that constrains *management activities** to those that are allowed in outer *riparian management zones** of Category A streams.

Regional Supplement25 For Category D streams, management:

- a. maintains root strength and stream bank and channel stability;
- b. recruits coarse wood to the stream *ecosystem**; and
- c. minimizes management-related sediment transport to the stream system.

Indicator 6.7.6 In limited circumstances, or if minor in extent, variations from the stated minimum *riparian management zone** widths and layout for specific stream segments, *wetlands**, and other *water bodies** are permitted, provided *The Organization** demonstrates that the alternative configuration maintains the overall extent of the *buffers** and provides equivalent or greater environmental *protection** than Indicator 6.7.5 (i.e., the base indicator, not the regional supplementary requirements) for those stream segments, *wetlands**, and other *water bodies**, based on site-specific conditions and *Best Available Information**. *The*

*Organization** develops a written set of supporting information, including a description of the riparian *habitats** and *species** addressed in the alternative configuration.

Applicability: This indicator may not be applied within *plantations**.

Indicator 6.7.7 *Restoration** activities are implemented when *protection** measures fail to *protect** *water bodies**, *riparian areas**, or *water quality** and quantity from impacts of activities on the *Management Unit**. Where past *protection** measures implemented by the present or previous owner are no longer effective, *The Organization** implements measures to mitigate negative impacts to, and if possible *restore**, the *water body**, *riparian area**, or *water quality** and quantity.

Where activities on the *Management Unit** that are not within *The Organization's** direct control (e.g., road maintenance, right-of-way construction) have the potential to significantly affect *water bodies** and/or *riparian areas**, *The Organization** works within its sphere of influence to attempt to implement *protective** measures and remedy instances in which past measures are no longer effective.

Federal Lands Supplement1 to Indicator 6.7.7 When legacy issues related to water protection, such as old road construction, pose significant risk to *riparian areas**, *waterbodies** or *water quality**, the applicable Federal agency has an active program and plan for prioritizing, and resolving or mitigating those issues.

Federal Lands Supplement2 to Indicator 6.7.7 For *Management Units** that have a history of use and/or disposal of hazardous materials, munitions, and/or other military or industrial activities, the *Organization** mitigates the negative effects to water quality that might accrue from these activities.

Intent: The goal of this *Indicator** is to address damaging activities (not just *management activities**) initiated by *The Organization** or by others. While there may be some limitations as to what *The Organization** may feasibly be able to do to address others' activities, *The Organization** does have a responsibility to try and control activities of individuals within the *Management Unit**.

In this case, "restore" means to repair the damage done to environmental values that resulted from legal or illegal activities. However, *The Organization** is not necessarily obliged to fully *restore** those environmental values that have been affected by factors beyond the control of *The Organization**, for example by natural disasters, by climate change, or by the legally authorized activities of third parties, such as public *infrastructure**, mining, hunting, or settlement when not in the scope of the certificate.

Assessments of whether activities have the "potential to significantly affect" the resources in question should consider the following attributes of the activities: temporality (i.e., short-term vs long-term impacts), permanency (i.e., whether it can be remedied/mitigated), defensibility (i.e., does it represent best practice or best available information*), repetition (i.e., one-time

vs. multiple occurrences), spatial extent, rarity of value affected, and extent of the impact (e.g., were broad public resources such as drinking water sources affected, does it represent a major non-conformance to the standard).

Federal Lands Intent for **Federal Lands Supplement1 to Indicator 6.7.7**: “Legacy Issues” are issues related to past management practices that had a negative impact on the land base and where these issues continue to have ongoing negative impacts.

Indicator 6.7.8 Authorized recreation use on the *Management Unit** is managed to avoid negative impacts to *soils**, water, plants, wildlife, and wildlife *habitats**.

Intent: This *Indicator** focuses on the impact of activities resulting from recreational use of the *management unit**. This indicator is not applicable to the construction or maintenance of trails, which are covered in Indicators 6.7.4 and 10.10.1. Unauthorized use of vehicles on the *Management Unit** is considered trespassing, which is an illegal activity and should be addressed accordingly.

Guidance: Examples of recreation use include: motorized and non-motorized vehicles, horses, hiking, and mountain biking.

Indicator 6.7.9 Grazing by domesticated animals is controlled to protect in-stream *habitats** and *water quality**, the *species** composition and viability of the riparian vegetation, and the banks of the stream channel from *erosion**.

Federal Lands Supplement1 to indicator 6.7.9 Grazing by domesticated animals is managed to minimize and mitigate adverse effects such as altering natural fire regimes, facilitating the spread of *invasive species**, harming *native species** and degrading *riparian** and aquatic systems.

Federal Lands Supplement2 to Indicator 6.7.9 The applicable Federal agency monitors the impacts of grazing on the environmental values identified per Indicator 6.1.1.

Guidance: The location and *intensity** of grazing (livestock numbers) and/or season of use (grazing duration) should be managed to avoid adverse impacts. Unauthorized grazing should be treated as any other illegal activity on the *Management Unit** and addressed accordingly.

Federal Lands Indicator 6.7.10 Watershed analyses are conducted to determine the conditions of watersheds within the *Management Unit** and to identify priority watersheds for *restoration** and maintenance.

Federal Lands Indicator 6.7.11 Plans are developed and implemented to maintain or restore *riparian** habitat and the ecological integrity of aquatic ecosystems and watersheds, including function, *connectivity** and composition. The plans take into account potential stressors such as climate change and social, *cultural** and economic impacts.

Federal Lands Indicator 6.7.12 Staff of the applicable Federal agency coordinates with other federal, state, local and tribal managers, and with other affected water managers and users to ensure appropriate resource *protection** (see also Federal Lands Supplement1 to Indicator 8.2.1).

C6.8 *The Organization** shall manage the *landscape** in the *Management Unit** to maintain and/or *restore** a varying mosaic of species, sizes, ages, *spatial scales**, and regeneration cycles appropriate for the *landscape values** in that region, and for enhancing environmental and economic *resilience**. (C10.2 and 10.3 P&C V4)

Indicator 6.8.1 *The Organization** maintains, enhances, and/or *restores** a mosaic of *forest** community types and underrepresented *successional** stages that would naturally occur on the types of ecological sites (e.g. soil, aspect, elevation) found on the *Management Unit**. Where old *forest**, late, and early *successional* habitats** of different community types that would naturally occur on the *forest** are underrepresented in the *landscape** relative to natural conditions, a portion of the *forest** is managed to enhance and/or *restore** old *forest**, late, and early *successional** characteristics.

FF Indicator 6.8.1 Not applicable for *family forest* Management Units**, due to the limited capacity of *management activities** to affect mosaics, resilience and other values at a landscape-level.

PL Indicator 6.8.1 Within *Management Units** that contain *plantations** established on *soils** which historically supported *natural forests**, *The Organization** maintains or restores a diversity of *forest** community types, wildlife habitats and ecological functions, including a diversity of size, structures, age classes, species and genetics across the *Management Unit**.

Federal Lands Supplement to Indicator 6.8.1 The extent of old growth and other underrepresented successional stages is expanded, with a stated objective to achieve representation of these successional stages as they would naturally occur.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest* Management Units**.

PL Indicator Applicability: *Management Units** with only *plantations** maintained on soils which historically did not support *natural forests** are exempt from this PL Indicator. In these situations, the base indicator is applicable to the non-*plantation** portions of the *Management Unit**.

For *Management Units** less than 124 acres (50 hectares) in size that meet all of the conditions of FSC Interpretation INT-STD-01-001_09 (see Annex G), the FF Indicator 6.8.1 applies.

PL Indicator Intent: Conformance with PL Indicator 6.8.1 may be achieved within the 15% of the *management unit** maintained in or *restored** to a natural or semi-natural state per PL Indicator 6.6.1.2.

Federal Lands Applicability for **Federal Lands Supplement to Indicator 6.8.1: For Management Units*** that meet the criteria to be a *family forest* management unit**, FF Indicator 6.8.1 applies.

Indicator 6.8.2 When present, management maintains the area, structure, composition, and processes of all *Type 1* and *Type 2 old growth**. *Type 1* and *Type 2 old growth** are also *protected** and buffered as necessary with *conservation zones**, unless an alternative plan is developed that provides greater overall *protection** of *old growth** values.

*Type 1 old growth** is protected from harvesting and road construction. *Type 1 old growth** is also protected from other timber *management activities**, except as needed to maintain the ecological values associated with the *stand**, including *old growth** attributes (e.g., remove *non-native species**, conduct controlled burning, and thinning from below in dry *forest** types when and where *restoration** is appropriate).

*Type 2 old growth** is protected from harvesting to the extent necessary to maintain the area, structures, and functions of the stand. Timber harvest in *Type 2 old growth** must maintain *old growth** structures, functions, and components, including individual trees that function as *refugia**.

On *public lands**, *Type 1* and *Type 2 old growth** are protected from harvesting, as well as from other timber *management activities**, except if needed to maintain the values associated with the *stand** (e.g., remove *non-native species**, conduct controlled burning, and thinning from below in *forest** types when and where *restoration** is appropriate).

On *tribal** lands, timber harvests may be permitted in *Type 1* and *Type 2 old growth** in recognition of their sovereignty and unique ownership. Timber harvest is permitted in situations where:

- a. *old growth* forests** comprise a significant portion of the *tribal** ownership;
- b. a history of *forest** stewardship by the *tribe** exists;
- c. *High Conservation Values** are maintained or enhanced;
- d. *old growth** structures are maintained;
- e. *conservation zones** representative of *old growth* stands** are established;
- f. *landscape**-level considerations are addressed; and
- g. *rare, threatened, and endangered species** are *protected**.

Federal Lands Supplement to Indicator 6.8.2 Prior implementing timber harvest or other site-disturbing activities in a forested area, *The Organization** identifies *Type 1** and *Type 2 old growth** stands that occur within the forested area.

Applicability: On all ownerships, when *management activities** (including timber harvest) create and maintain conditions that emulate *Type 2 old growth* stands**, but don't meet the definition of *Type 2 old growth** due to those ongoing *management activities**, the management system that created those conditions may be used to maintain them.

Intent: *Old growth** is called out and *protected** uniquely in the standard because of its importance and its significant underrepresentation across the *landscape** as a successional stage. In very limited situations on the forest types of northern white cedar or black spruce in upper Midwest states, when decisions made by *The Organization** have resulted in an increased extent of *old growth** and it is widely represented, Indicator 6.8.3 provides some flexibility for harvest while still maintaining representation of *old growth** across the *landscape**.

Guidance: A full assessment for the presence of old growth* on the Management Unit* is not required as long as the Organization* demonstrates that unassessed areas are protected.

Indicator 6.8.3 On the forest types of northern white cedar or black spruce in upper Midwest states, when *forest** management decisions by *The Organization** have resulted in an increase in the extent of *Type 1* and/or *Type 2 old growth** on those *forest** types and the *old growth** successional stage for those *forest** types is now widely represented within the *landscape**, timber harvest within *Type 1** and/or *Type 2 old growth** stands of that *forest** type may occur if:

- a. *management objectives** are developed to ensure that the extent and integrity of this successional stage for the above *forest** types will be maintained at or above historic levels of representation across the *landscape**;
- b. *conservation zones** representative of this successional stage for the above *forest** types are established and are not harvested*, except as needed to maintain the ecological values associated with the *stand**; and
- c. *rare, threatened, and endangered species** are *protected**.

Indicator 6.8.4 Where there are regionally specific maximum *harvest opening** sizes (both average and absolute) per Indicator 6.6.5, and rotation lengths meet or exceed *culmination of mean annual increment** for *natural forest** stands of similar *forest** type and site class, maximum *harvest opening** sizes (both average and absolute) may be increased by 20% above those specified. For each 10-year increase in rotation length, *harvest opening** sizes may be increased by an additional 20%.

Intent: This *Indicator** encourages *stands** with longer rotation lengths by providing greater flexibility in *harvest opening** sizes when the regional supplementary requirements of Indicator 6.6.5 provide limits on *harvest opening** sizes.

Guidance: If the *Management Unit** does not have growth and inventory data for similar *stands** on the *Management Unit** needed to establish *culmination of mean annual increment**, growth and inventory data from similar *forest** types and site classes of *natural forests** off the *Management Unit** are expected to be used to establish *culmination of mean annual increment**. Historical data from *public lands** such as National Forests may be the best source of information for calculating *culmination of mean annual increment**.

C6.9 *The Organization shall not convert natural forest to *plantations**, nor natural forests or *plantations** on sites directly converted from natural forest to non-*forest** land use, except when the *conversion**:**

- a. affects a very limited portion* of the area of the *Management Unit**;
- b. will produce clear, substantial, additional, secure long-term conservation* benefits in the *Management Unit**; and
- c. does not damage or threaten *High Conservation Values**, nor any sites or resources necessary to maintain or enhance those *High Conservation Values**. (C6.10 P&C V4 and Motion 2014#7)

Applicability: Criterion 6.9 references *conversion** from “natural forest” to *plantation** or to non-*forest** uses, but uses the term “natural forest” as it is defined globally. The US definition is different and only represents a part of what is defined as “natural forest” globally. “*Natural forest*” and “*semi natural forest*,” as defined in this Standard, when combined together, represent the concept of “natural forest” as it is used in this *Criterion**.

This *Criterion** addresses permanent or *long-term** change of *natural forest** or *semi-natural forest** that results from human-caused activities, where the *forest** is precluded from reverting back towards pre-*conversion** conditions. Temporary changes of *forest** cover or structure (e.g. harvesting followed by regeneration in accordance with the FSC normative framework) is not considered *conversion**.

For the purposes of this Standard, the establishment of ancillary *infrastructure** necessary to implement the objectives of responsible forest management (e.g. forest roads, skid trails, log landings, fire protection, management buildings, etc.) is not considered *conversion** under this *Criterion*.

Additionally, this *Criterion** does not apply if a *forest** that lacks the *vast majority** of native *ecosystem** components (i.e., does not meet the definition of *natural forest** or *semi-natural forest**) is transformed into a *plantation** or into non-*forest**.

Guidance: “Non-forest” is not defined, however it would include anything that does not fall within the definition of a “forest”, (i.e., anything that is not an *ecosystem** characterized by tree cover). *Plantations** are considered to be *ecosystems**, and therefore *forests**, even though they lack most of the principal characteristics and key elements of a *native forest** *ecosystem**.

For the purposes of this standard, “Non-forest” includes land that is forested, but current zoning and/or conditional use permits present intentions for future conditions of the land that will result in the loss of, or degradation of, production of *forest** products, values, or amenities (e.g., commercial or industrial development, residential use).

Note that there are limited situations where establishment of *plantations** within a *management unit** is acceptable. Certification of *plantations** is addressed per Criterion 6.10.

Indicator 6.9.1 here is no *conversion** of *natural forest** or *semi-natural forest** to *plantations**, nor *conversion** of *natural forest** or *semi-natural forests** to non-*forest** land use, nor *conversion** of *plantations** to non-*forest** land use when on sites directly converted from *natural forest** or *semi-natural forest**, except when the *conversion**:

- a. affects a very limited portion* of the *Management Unit**;
- b. will produce clear, substantial, additional, secure, *long-term** *conservation** benefits in the *Management Unit**; and

- c. does not damage or threaten *High Conservation Values**, nor any sites or resources necessary to maintain or enhance those *High Conservation Values**.

Guidance: “Directly converted from...” is intended to convey that if the *plantation** site was *natural forest** or *semi-natural forest** immediately prior to being converted to *plantation**, then it may not be converted to non-forest* uses. However, if the *plantation** site was non-forest* immediately prior to being converted to a *plantation**, then it may be converted back to non-forest* uses. *Conversions** must be consistent with Criterion 1.8 and demonstrate a *long-term** commitment to the FSC Principles and Criteria and to related FSC Policies and Standards.

The Organization is encouraged to document the rationale and evidence for conformance with Items (a), (b), and (c).

Maintenance of an FSC certificate for the remainder of the *management unit** does not in itself constitute sufficient *conservation** benefit. Situations where *The Organization** holds the surface rights to lands where other individuals or organizations also have the right to implement activities (e.g., when surface rights and mineral rights have been severed and the holder of the mineral rights wishes to access those minerals), or when *The Organization** owns the land but another entity has *use rights** for the land (e.g., utility and access rights-of-way) are generally addressed through the FSC Policy for The Excision of Areas from the Scope of Certification (FSC-POL-20-003). Conformance with this policy does not always require excision of lands from the scope of certification. In some situations, *The Organization** may be able to set some expectations for how activities will be implemented and/or for *restoration** after they are completed.

C6.10 *Management Units containing *plantations** that were established on areas converted from *natural forest** after November 1994 shall not qualify for certification, except where:**

- a) **clear and sufficient evidence is provided that *The Organization** was not directly or indirectly responsible for the *conversion**; or**
- b) **the *conversion** affected a *very limited portion** of the area of the *Management Unit** and is producing clear, substantial, additional, secure long-term *conservation** benefits in the *Management Unit**. (C10.9 P&C V4)**

Applicability: This *Criterion** only applies to *plantations** established in areas converted from *natural forests** or *semi-natural forests**. *Plantations** that are established in *forests** that lack the *vast majority** of native *ecosystem** components (i.e., do not meet the definition of *natural forest** or *semi-natural forest**) or are established in non-forest* areas (as long as the non-forest* area is not the result of a direct *conversion** from *natural forest** or *semi-natural forest** that occurred after November 1994) are not covered by this *Criterion** and are not prohibited, as long as the *management unit** conforms with all aspects of this Standard.

Guidance for classifying forests as *natural forest** or *semi-natural forest** vs. *plantation** is provided in Annex I.

Intent: The November 1994 cutoff date refers to the date of *conversion*^{*}, not the date of *plantation*^{*} establishment.

Indicator 6.10.1 Based on *Best Available Information*^{*}, accurate information related to prior land use and *forest*^{*} type present before and after *conversion*^{*} is compiled on all *conversions*^{*} from *natural forest*^{*} or *semi-natural forest*^{*} since 1994. Information includes:

- a. maps and/or photographs noting location of *converted*^{*} land;
- b. description of previous and current conditions including *forest*^{*} community types, size class and/or *successional*^{*} stages, and reason for *conversion*^{*}; and
- c. acres *converted*^{*}.

Indicator 6.10.2 Areas converted from *natural forest*^{*} or *semi-natural forest*^{*} to *plantation*^{*} since November 1994 are not certified, except where:

- a. *The Organization*^{*} provides clear and sufficient evidence that it was not directly or indirectly responsible for the *conversion*^{*}; or
- b. the *conversion*^{*} is producing clear, substantial, additional, secure, *long-term*^{*} *conservation*^{*} benefits in the *Management Unit*^{*}; and the total area of *plantation*^{*} on sites converted from *natural forest*^{*} or *semi-natural forest*^{*} since November 1994 is a *very limited portion*^{*} of the *Management Unit*^{*}.

Indicator 6.10.3 For *plantations*^{*} established in areas converted after 1994 per (a) in Indicator 6.10.2, *The Organization*^{*} develops and implements a plan to *restore*^{*} the *plantation*^{*} *stands*^{*} to *natural forest*^{*} or *semi-natural forest*^{*} and to manage those *stands*^{*} in compliance with all *Indicators*^{*} of Principles 1–10 as quickly as feasible. A *very limited portion*^{*} of the *Management Unit*^{*} may remain *plantation*^{*} (consistent with (b) of Indicator 6.10.2).

Guidance: Considerations for feasibility include economic and logistical constraints.

PRINCIPLE 7: MANAGEMENT PLANNING

The Organization^{*} shall have a *management plan*^{*} consistent with its policies and *objectives*^{*} and proportionate to *scale*^{*}, *intensity*^{*}, and *risks*^{*} of its *management activities*^{*}. The *management plan*^{*} shall be implemented and kept up to date based on monitoring information in order to promote *adaptive management*^{*}. The associated planning and procedural documentation shall be sufficient to guide staff, inform *affected stakeholders*^{*} and *interested stakeholders*^{*}, and to justify management decisions. (P7 P&CV4)

Intent: This *Principle*^{*} is intended to ensure that management of the *Management Unit*^{*} is described in a comprehensive *management plan*^{*}. The plan should be developed with expertise and *stakeholder*^{*} input appropriate to the *scale*^{*} of the operation. The *management plan*^{*}, and the process of its development, should embody and consider all of the *Principles*^{*} and *Criteria*^{*} in this Standard.

The *management plan*^{*} may consist of a variety of documents or an umbrella document that

describes how a collection of management documents relate to an integrated strategy for managing the *forest*^{*}. This may include a combination of ownership-level plans, unit plans, site-level plans (e.g., harvest plans), GIS, published guidelines (e.g., regional *silviculture*^{*} or *best management practice*^{*} guides), landowner policies, and other information.

Guidance on *scale*^{*} and *intensity*^{*} of operations: All *management plans*^{*}, regardless of the *scale*^{*} and *intensity*^{*} of operations must address the Indicators of Criterion 7.1 and Criterion 7.2 unless otherwise noted below.

C7.1 The Organization^{*} shall, proportionate to *scale*^{*}, *intensity*^{*}, and *risk*^{*} of its *management activities*^{*}, set policies (visions and values) and *objectives*^{*} for management, which are environmentally sound, socially beneficial, and economically viable. Summaries of these policies and *objectives*^{*} shall be incorporated into the *management plan*^{*} and publicized. (C7.1a P&C V4)

Intent: Criterion 7.1 ensures that a written *management plan*^{*}, as described in the *Principle*^{*}-level intent and guidance above, exists for the *Management Unit*^{*} within the scope of the certificate. The *management objectives*^{*} detailed in the plan are specific, achievable, measurable, and adaptive. They are also sufficient to meet the requirements of this Standard.

Whenever the term “*management plan*^{*}” is used, it refers to any combination of documents and systems that meet the intent of the *Indicator*^{*}.

Indicator 7.1.1 Policies support the *management plan*^{*} and are aligned with the requirements of this Standard.

FF Indicator 7.1.1 Not applicable for *family forest*^{*} *Management Units*^{*}. Conformance with Criterion 7.1 for *family forest*^{*} *Management Units*^{*} is addressed through FF Indicator 7.1.2.

FF Indicator Intent: The *Certification Body*^{*} is not expected to assess conformance of *family forest*^{*} *Management Units*^{*} with this Indicator.

Indicator 7.1.2 The *management plan*^{*} describes: a) current conditions of the timber and non-timber *forest*^{*} resources being managed; b) *historic conditions*^{*}; c) *desired future conditions*^{*}; and d) applicable *management objectives*^{*} to move the *Management Unit*^{*} toward *desired future conditions*^{*}, including those to achieve conformance with the Standard.

FF Indicator 7.1.2 A written *management plan*^{*} exists for the *Management Unit*^{*} and includes *management objectives*^{*} to achieve conformance with the standard.

Federal Lands Supplement1 to Indicator 7.1.2 The management objectives found in tribal, state, regional and/or community plans for conservation, protection, and restoration, adopted by agencies are considered by *The Organization*^{*} during development and revision of the *management plan*^{*}.

Federal Lands Supplement2 to Indicator 7.1.2 *Management objectives** include restoration of degraded native ecosystems, provision of carbon storage and other ecosystem services, ensuring implementation of *climate change adaptation strategies**, and maintenance or restoration of natural resilience to climate change, fire, and other disturbances.

Federal Lands Supplement3 to Indicator 7.1.2 *Management objectives** incorporate the unique contribution of the federal lands in conservation of environmental values identified per the Federal Lands Supplement1 to Indicator 6.1.1 landscape-scale assessment.

Guidance: “Current conditions” are based on *forest** inventories or other information sources, as applicable.

The purpose of establishing *historic conditions** is to facilitate creating a baseline for assessing environmental impacts of operations, to facilitate establishing *desired future conditions**, and to determine when *restoration** may be needed. When *historic conditions** are not available, best estimates from available sources may be used. *Historic conditions** should be used as guidelines for estimating ecological components of naturally occurring conditions.

“*Management objectives**” are typically time specific, measurable results that correspond to the goals. It is acceptable for *The Organization** to include objectives in their *management plan** that are not specifically related to achieving conformance with the Standard, as long as those objectives do not conflict with the requirements of the Standard. Additionally, *The Organization** is not limited to implementing only those *management objectives** and activities that are described in the *management plan** (as long as additional objectives and activities are not in conflict with requirements of the Standard). However, *management plans** must be updated (even if the time period identified in Indicator 7.4.1 has not yet expired) when there is new information from monitoring, and incorporation of these other activities should be achieved at the same time.

*Forest** resources are not limited to *forest** products.

C7.2 *The Organization** shall have and implement a *management plan** for the *Management Unit** which is fully consistent with the policies and *management objectives** as established according to Criterion 7.1. The *management plan** shall describe the natural resources that exist in the *Management Unit** and explain how the plan will meet the FSC certification requirements. The *management plan** shall cover *forest** management planning and social management planning proportionate to *scale**, *intensity**, and *risk** of the planned activities. (C7.1 P&C V4)

FF Guidance The *management plan** needs only to be as complex as the forest and activities to which it applies, taking scale, intensity, and risk into consideration.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** in this *Criterion** that are designated as being, ‘Not applicable’ for *family forest* Management Units**.

Indicator 7.2.1 The *management plan** describes activities to achieve the *management objectives** defined in Indicator 7.1.2.

FF Indicator 7.2.1 The *management plan** includes the following components:

- a. Quantitative and qualitative description of the *forest** resources to be managed, including at minimum *stand**-level descriptions of the land cover, including *species** and size-class/*successional** stage and referencing inventory information (per Criterion 6.1).
- b. Description of silvicultural and/or other management systems, prescriptions, rationale, and typical *harvest** systems (if applicable) that will be used (per Criterion 10.5 and Criterion 10.11).
- c. Description of rates and methods of timber harvest (per Criterion 5.2) and *species** selection (per Criterion 10.2).
- d. Description of environmental value assessment and safeguards based on the assessment (per Criteria 6.1, 6.2 & 6.3), including approaches to:
 - i. pest and *invasive species** management (per Criterion 10.7 and Criterion 6.6),
 - ii. *natural hazard** (e.g., fire) management (per Criterion 6.3),
 - iii. protection of *riparian management zones** (per Criterion 6.7);
 - iv. protection of *viable** examples of native *ecosystems** (per Criterion 6.5), and management of *High Conservation Values** (per Principle 9).
- e. Description of location and protection of *rare, threatened, and endangered species** and *rare ecological communities** (per Criterion 6.4 and Criterion 6.6).
- f. Description of procedures to monitor the *forest**, including *forest** growth and dynamics, and other components as outlined in Principle 8.
- g. Maps representing property boundaries, use rights, land cover types, topography, *soils**, hydrologic features, *infrastructure**, age classes/seral stages, adjoining land use, and special features in a manner that clearly relates to the *forest** description and management prescriptions.
- h. Description of the extent and location of areas selected within a *plantation** for *restoration**, as well as the rationale for their selection, if applicable (per Criterion 6.6).
- i. The *management plan** considers the potential impact of climate change related risks and vulnerabilities by describing:
 - i. potential climate change impacts on environmental values identified per Indicator 6.1.1;
 - ii. potential climate change impacts on achievement of *management objectives** and *desired future conditions**, and
 - iii. *climate change adaptation strategies**, if any, that are being implemented to address identified impacts.

Indicator 7.2.2 The *management plan** identifies the ownership and *legal** status of the *Management Unit** and its resources, including *rights** held by the owner(s) and established *rights** held by others (per Criteria 1.2, 3.1, and 4.1).

FF Indicator 7.2.2 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Guidance: *Legal** status information may be summarized in the *management plan** as appropriate to the *scale** and complexity of the ownership and the relevance of applicable

*legal** constraints on *management activities**.

Ownership status includes ownership type (e.g., fee, easement, lease).

*Rights** held by others may include: *use rights**; *Indigenous Peoples** *rights**; conservation easements, deed restrictions, and other easements or *rights** held by others; and leasing arrangements.

Indicator 7.2.3 The *management plan** describes the history of land use and past management, current *forest** types and associated size class and/or *successional** stages, and *natural disturbance regimes** that affect the *Management Unit** (per Indicator 6.1.1).

FF Indicator 7.2.3 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.4 (New) The *management plan** considers the potential impact of climate change by describing:

- a. potential climate change impacts on environmental values identified per Indicator 6.1.1;
- b. other climate change-related risks and vulnerabilities that may affect achievement of *management objectives** and *desired future conditions**;
- c. *climate change adaptation strategies**, if any, that are being implemented to address identified impacts.

FF Indicator 7.2.4 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Guidance: For currently FSC-certified *medium** and *large** *management units**, conformance with Indicator 7.2.4 is expected to occur within 3 years of the Standard's effective date. Currently certified *family forest** *management units** are expected to conform with Indicator 7.2.4 within 5 years of the Standard's effective date.

Considerations should address the *Best Available Information** (per Annex L), acknowledge that response plans for future disturbances may be beyond historic parameters, and identify if climate change-related changes in conditions are likely within the timeframe of a given management decision (e.g., rotation length).

Annex L provides guidance and resources for developing *climate change adaptation strategies**. The types of strategies implemented by *The Organization**, if any, will likely be influenced by the information available to *The Organization** and its *management objectives**.

Indicator 7.2.5 The *management plan** includes a description of the *landscape** within which the *Management Unit** is located and describes how *landscape**-scale *habitat** elements described in Criterion 6.8 will be maintained and/or restored.

FF Indicator 7.2.5 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Guidance: The *landscape** description and *landscape** *management objectives** consider elements such as:

- land uses and trends in the surrounding *landscape**;
- a general description of *forest**-ownership types and parcel sizes in the *landscape**;
- *forest** types, type of management, and general condition of *forests** within the *landscape**;
- significant *water bodies** and other features that cross the *Management Unit** boundary;
- diversity of *habitats** across the ownership, as indicated by *forest* type; and
- *species** or *species** groups that may be significantly affected by *habitat** loss or fragmentation on the *Management Unit**.

Indicator 7.2.6 The *management plan** includes a description of the following resources and outlines activities to *conserve**:

- a. *rare, threatened, and endangered species** and natural communities (per Criterion 6.1 and 6.4);
- b. plant *species** and community diversity and wildlife *habitats** (per Criterion 6.1 and 6.6);
- c. water resources (per Criterion 6.1 and 6.7);
- d. *soil** resources (per Criterion 6.1 and 6.7);
- e. *Representative Sample Areas** (per Criterion 6.5); and
- f. other special management areas designated by *The Organization**.
- g. Carbon storage and sequestration (per Criterion 6.1)

FF Indicator 7.2.6 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Federal Lands Supplement to Indicator 7.2.6 The management plan identifies opportunities for and activities to initiate restoration of broad scale ecological processes (i.e., natural fire regimes, successional patterns, flooding) that are no longer present in the landscape in a substantially unmodified condition.

Guidance: The *management plan** should have sufficient detail to describe the current resources and how *The Organization** complies with the referenced Criteria .

The *management plan** may reference supporting guidelines and policies that describe specific management practices. Site-specific information and practices may be included in operational plans.

Indicator 7.2.7 The *management plan** describes the *High Conservation Value** assessment results and the *management strategies** necessary to ensure the maintenance and/or enhancement of all *High Conservation Values** (per Principle 9).

FF Indicator 7.2.7 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.8 If *invasive species** are present, the *management plan** describes *invasive species** conditions and applicable *management objectives**, and summarizes the *invasive species** prevention and control strategies (per Indicator 6.6.4).

FF Indicator 7.2.8 Not applicable for *family forest* Management Units**. Conformance for *family forest* Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Guidance: The plan may reference supporting guidelines and policies that describe specific management practices.

Indicator 7.2.9 The *management plan** describes how current or anticipated impacts of insects and diseases on *forest** conditions and *management objectives** will be addressed (per Criteria 10.7 and 10.8).

FF Indicator 7.2.9 Not applicable for *family forest* Management Units**. Conformance for *family forest* Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Intent: Disease may include biotic factors (e.g., fungi and other *pathogens**) and abiotic factors (e.g., acidic deposition).

Guidance: Potential impacts on stocking or harvest are described.

The *management plan** may reference supporting guidelines and policies that describe specific *management activities**.

This description is commensurate with the likelihood of outbreaks or infestations.

Indicator 7.2.10 If *pesticides** are used, the plan describes how the management system conforms with Criterion 10.7.

FF Indicator 7.2.10 Not applicable for *family forest* Management Units**. Conformance for *family forest* Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.11 If *biological control agents** are used, the *management plan** describes how the management system conforms with Criterion 10.8.

FF Indicator 7.2.11 Not applicable for *family forest* Management Units**. Conformance for *family forest* Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.12 The *management plan** describes potential impacts of *management activities** on social values and the *management strategies** necessary to ensure the maintenance and/or enhancement of these values, including consideration of:

- a. traditional *cultural** resources and *rights** (per Criteria 3.2 and 4.1);
 - b. other identified *rights** (per Criteria 1.2);
 - c. ceremonial, archeological, and historic sites (per Criteria 3.5 and Principle 9);
 - d. other values of importance to *local communities** (per Indicator 4.5.1);
 - e. public access to and use of the *forest** and other recreation issues (per Criterion 6.1);
- and

- f. local and regional economic opportunities, including creation and/or maintenance of quality jobs (per Criterion 2.4 and Indicator 4.3.1), *local** purchasing opportunities (per Indicators 4.3.1 and 5.4.1), and participation in *local** development opportunities (per Indicators 4.3.2, 4.4.1 and 5.4.2).

FF Indicator 7.2.12 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.13 The *management plan** describes the general purpose, condition, and maintenance needs of the *transportation system** (see Indicator 6.7.4).

FF Indicator 7.2.13 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Intent: The *transportation system** includes roads, skid trails, landings, and stream crossings. Management needs include maintenance, upgrades, closures, etc.

Indicator 7.2.14 The *management plan** describes the *silvicultural** and other management systems used and how they will sustain, over the *long term**, *forest** *ecosystems**. For *plantations**, this includes describing how these systems are being used to achieve *natural forest** *conservation**, and *restoration** objectives within the *management unit** (per Criteria 6.5 and 6.6).

FF Indicator 7.2.14 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Federal Lands Supplement to Indicator 7.2.14 If the *Management Unit** contains *plantations** on *forest** *soils**, then the *management plan** includes a strategy and implementation plan for restoring the *plantations** to *natural forest** or *semi-natural forest** per PL Indicator 6.6.2.1.

Guidance: Per Indicator 5.2.4, *The Organization** must use *silvicultural** management systems that improve or maintain health and quality across the *management unit**; per Indicator 10.1.2, and Indicator 10.5.1, *silvicultural** practices must be ecologically appropriate for the site and *management objectives**.

Harvesting practices which degrade the long-term ecological or *economic viability** of the residual stand (e.g., *high-grading**), and/or do not sustain *forest** *ecosystems** over the *long term**, do not meet the requirements of Indicator 5.2.4, Indicator 6.6.2, Indicator 10.5.1, Indicator 10.11.4, nor Indicator 7.2.14.

Indicator 7.2.15 The *management plan** describes how harvest rate calculations were developed to meet the requirements of Criterion 5.2.

FF Indicator 7.2.15 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Guidance: The *management plan** describes the methods used to calculate the harvest level,

and describes how that level is consistent with the composition, structures, and functions of the *Management Unit** in accordance with Criterion 6.6 and other applicable *Criteria**.

Indicator 7.2.16 The *management plan** includes a description of the monitoring protocol developed to address the requirements of Criterion 8.2.

FF Indicator 7.2.16 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.17 The *management plan** includes maps describing the resource base, the characteristics of general management zones, special management areas, *restoration** areas, *conservation zones**, and *protected areas** at a level of detail to achieve *management objectives** and *protect** sensitive sites.

FF Indicator 7.2.17 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Intent: “Sensitive sites” is used in reference to sites that are more sensitive and vulnerable to impact from the types of *forest** management practices that will occur on the *Management Unit**.

Guidance: Depending on the map scale (e.g., *forest**-level vs. *stand**-level) and purpose and *intensity** of management, maps should include:

- property boundaries and ownership;
- roads and trails;
- planned *management activities**, including *forest** product harvest areas;
- *forest** types by *age class**;
- topography, *soils**, water courses, and *water bodies**;
- wetlands and *riparian areas** ;
- archeological and *cultural** sites and customary use areas;
- locations of unique and sensitive natural communities, *habitats**, and features;
- *rare, threatened, and endangered species**;
- *Representative Sample Areas**; and
- designated *protected areas** and *High Conservation Values** .

The location of sensitive sites (e.g., rare plants or archaeological sites) need not be made publicly available to *protect** the resource.

Indicator 7.2.18 The *management plan** describes the stakeholder consultation process (per Criteria 7.6).

FF Indicator 7.2.18 Not applicable for *family forest** *Management Units**. Conformance for *family forest** *Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.19 The *management plan** includes descriptions of: a) financial or other strategies established to prevent, mitigate, restore* or compensate for potential negative social and environment impacts resulting from *management activities**; and b) benefits related to

positive social and environmental impacts resulting from *management activities** (per Criterion 5.3).

FF Indicator 7.2.19 Not applicable for *family forest* Management Units**. Conformance for *family forest* Management Units** is addressed through FF Indicators 7.1.2 and 7.2.1.

Indicator 7.2.20 Activities undertaken on the *Management Unit** are consistent with the *management plan**.

C7.3 The *management plan** shall include **verifiable targets*** by which progress towards each of the prescribed **management objectives*** can be assessed. (new)

Indicator 7.3.1 *Verifiable targets** are established for each *management objective** (per Criterion 7.1) and are used as the basis for monitoring, as described in Principle 8.

FF Indicator 7.3.1 Not applicable for *family forest* Management Units** due to the limited *scale** and frequency of *management activities** that occur on *family forest* Management Units**.

Guidance: Targets are measurable (where possible), address short-term and *long-term** time frames (as applicable), and each is supported by a rationale, including underlying assumptions.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest* Management Units**.

C7.4 The *Organization** shall update and revise periodically the management planning and procedural documentation to incorporate the results of monitoring and evaluation, stakeholder *engagement**, or new scientific and technical information, as well as to respond to changing environmental, social, and economic circumstances. (C7.2 P&C V4)

Indicator 7.4.1 The *management plan** is kept up to date. It is reviewed on an ongoing basis and is updated to incorporate results of monitoring and evaluation, new scientific and technical information, and *stakeholder* engagement**, as well as to respond to changing environmental, social, and economic circumstances. All components of the *management plan** are reviewed and revised at least every 10 years (unless a longer management plan revision cycle is a statutory requirement but not to exceed 15 years).

Guidance: Reasons for modifying/updating the components of the *management plan** may include:

- significant changes in the size of the *Management Unit** or *forest** types
- incorporating the results of monitoring and evaluation as outlined in Principle 8;
- the plan's primary objectives or management systems are outdated;
- occurrence of a natural disturbance results in a modification of management outside the scope of the management plan (e.g. impacts sustained yield);
- significant changes in uses of the *Management Unit**

significant changes in socioeconomic circumstances.

Federal Lands Guidance for **Indicator 7.4.1**: The management plan is expected to be maintained in accordance with the applicable Federal agency's guidelines.

C7.5 The Organization* shall make **publicly available*** a summary of the **management plan*** free of charge. Excluding **confidential information***, other relevant components of the **management plan*** shall be made available to **affected stakeholders*** on request, and at cost of reproduction and handling. (C7.4 P&C V4)

Intent: The owner or manager of a private *forest** may withhold proprietary information (e.g., timber volumes by size and *age class**, marketing strategies, and other financial information) but is required to share information from the plan that informs *stakeholders** about *management activities** and implementation of the *Principles**, *Criteria**, and *Indicators** found in this Standard.

Indicator 7.5.1 While respecting *confidential information**, the *management plan** or a *management plan** summary that outlines the elements of the plan described in Criterion 7.1 and Criterion 7.2 is available to the public at no charge.

FF Indicator 7.5.1 Not applicable for *family forest* Management Units**. Conformance with Criterion 7.5 for *family forest* Management Units** is addressed through FF Indicator 7.5.2.

Guidance: See Criterion 8.4 for more information on respecting landowner confidentiality and what is acceptable to provide in a public summary. Limited elements of the plan may be excluded to protect the security of environmentally sensitive and/or proprietary information.

When possible, *The Organization** should post a summary of the *management plan** on their website, but at a minimum, this summary is made available upon request.

While respecting confidentiality, *the Organization** is expected to make a reasonable attempt to provide summaries of information that is considered confidential in such a way as to protect its confidentiality.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with this Indicator.

Indicator 7.5.2 While respecting *confidential information**, relevant components of the *management plan** are provided upon request to *affected stakeholders**, at cost for reproduction and handling.

Guidance: Components provided are expected to include more information than is available in the public summary shared per Indicator 7.5.1 and be relevant to *management activities** that are likely to directly affect the *stakeholders** requesting the information. Examples may include components associated with *management activities** that: require use of shared road access; occur along shared property lines; occur upstream from other property owners.

C7.6 The Organization* shall, proportionate to scale*, intensity*, and risk* of management activities*, proactively and transparently engage affected stakeholders* in its management planning and monitoring processes, and shall engage interested stakeholders* on request. (C4.4 P&C V4)

Intent: Engagement with *stakeholders** in monitoring processes is addressed per Indicator 8.2.2 and is therefore not addressed in the *Indicators** of this *Criterion**.

Indicators 7.6.1 and 7.6.2 address an expectation for proactive engagement with *stakeholders** and *rights holders** that are likely to be affected by *management activities**, while Indicator 7.6.3 indicates an expectation of engagement with other *stakeholders** only when requested.

Guidance: *The Organization** is expected to consider stakeholder input, but it is recognized that not all stakeholder input will be applicable to conformance with the standard. Significant *stakeholder** input should be documented, including how it was used or why it was not used, and the Organization is expected to respond directly to the applicable *stakeholder** with this information.

Indicator 7.6.1 *The Organization** seeks and considers in good faith* input in management planning from *affected stakeholders** and affected *rights holders**.

FF Indicator 7.6.1 Not applicable for *family forest* Management Units**. Conformance with Criterion 7.6 for *family forest* Management Units** is addressed through FF Indicator 7.6.2.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with this Indicator.

Indicator 7.6.2 *Affected stakeholders** and affected *rights holders** are apprised of relevant activities in advance of the action and provided an opportunity to offer input .

FF Indicator 7.6.2 *Affected stakeholders** and affected *rights holders** are apprised of relevant activities in advance of the action and provided an opportunity to offer input. This input is considered in good faith in management planning.

Intent: This *Indicator** focuses on stakeholder consultation in operations that may directly and negatively affect stakeholders, such as logging, burning, spraying, or traffic.

Guidance: *The Organization** may post signs or implement other measures that are readily noticeable by likely *affected stakeholders** but that do not necessarily require direct communication. Some situations may warrant direct communication.

Advance notice should be within a time frame appropriate to the situation and allow for addressing affected stakeholder* input.

FF Indicator Guidance: While *stakeholder* engagement** is not required during management

planning, any input that *The Organization** receives per Indicator 7.6.2 should be considered when the *management plan** is next revised.

Indicator 7.6.3 Upon verbal or written request, *interested stakeholders** are provided with an opportunity for *engagement** regarding planning for *management activities** that affect their interests. *The Organization** considers their input in good faith*.

FF Indicator 7.6.3 On private ownerships, not applicable for *family forest* Management Units**. Conformance with Criterion 7.6 for privately owned *family forest* Management Units** is addressed through FF Indicator 7.6.2.

FF Indicator Applicability: Public ownerships conform with the base indicator.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of privately owned *family forest* Management Units** with this Indicator.

Indicator 7.6.4 For *public lands**, engagement includes the following components:

- a. Clearly defined and accessible methods for public participation are provided in both short term and *long term** planning processes, including harvest plans and operational plans.
- b. Draft and final *management plans**, revisions, and supporting documentation are easily accessible for public review and comment prior to their implementation.
- c. Public notification is sufficient to allow *interested stakeholders** the chance to learn of upcoming opportunities for public review and/or comment on the proposed management.
- d. Public comments are addressed and plans modified to ensure their conformance with this Standard.
- e. An accessible appeals process to planning decisions is available.

Federal Lands Supplement1 to Indicator 7.6.4 Written rationale for decisions is provided in cases where management plans do not adopt the recommendations of public input.

Federal Lands Supplement2 to Indicator 7.6.4 An written engagement strategy is developed and implemented, and includes

methods for *engaging** diverse audiences, including *Native American** groups, youth, low-income and underrepresented communities, and local, regional and national audiences.

Applicability: This Indicator only applies to *public lands**.

Intent: FSC certification does not preclude any individual or group from seeking legislative or judicial relief.

Guidance: *Interested stakeholders** may be wide-ranging geographically.

Public *engagement** should be accessible to individuals, organizations, and other social units that could be affected economically, environmentally, or socially by *management activities** on the *Management Unit**. This minimally includes all citizens of the relevant entity (county, city,

state or nation).

Indicator 7.6.5. Organization maintains a diverse, representative, and relevant stakeholder list, complete with contact information.

Guidance: *Stakeholder** list is expected to include people and organizations with whom *The Organization** interacts as well as potential *affected stakeholders** and *interested stakeholders**. Examples include: contractors, buyers of *forest** products, local government officials, regulatory agencies, neighbors, interested environmental groups, *forest** users, *rights** holders, *forest* workers**, *Native American Indigenous Peoples**.

Preferred contact information is a phone number or email address.

Federal Lands Indicator 7.6.6 Upon issuance of a certificate, *The Organization** posts the full certification report and the conformity assessment body's public summary on their website. Locations of sensitive resources, such as archeological sites, *rare, threatened and endangered species**, and personally identifiable information, may be withheld.

Applicability: This indicator applies to both initial certification and re-certification.

PRINCIPLE 8: MONITORING AND ASSESSMENT

***The Organization** shall demonstrate that progress toward achieving the *management objectives**, the impacts of *management activities**, and the condition of the *Management Unit** are *monitored** and evaluated proportionate to the *scale**, *intensity**, and *risk** of *management activities**, in order to implement *adaptive management**. (P8 P&C V4)**

Guidance: The monitoring protocols required per Indicator 8.1.1 and Indicator 8.2.1 may consist of a variety of documents or an umbrella document that describes how a collection of monitoring documents relate to an integrated program for monitoring as required by this *Principle**. This may include a combination of ownership-level, unit, and/or site-level monitoring approaches, GIS, published guidelines, landowner policies, and other information.

Monitoring should be focused on data and observations that are of sufficient detail to evaluate current conditions; the effects of management on economic, environmental, and social resources of the *Management Unit**; and to track progress toward *desired future conditions**, *verifiable targets**, and *management objectives** relevant to the Standard. Annex J provides a structure to assist *The Organization** with developing its monitoring protocol. It is acknowledged that in addition to formal monitoring protocols typically *Organizations** also conduct informal monitoring as well, which may also contribute to demonstrating conformance with the Standard.

The monitoring protocol(s) should describe procedures and their frequency,

The scope and robustness of the monitoring program is expected to reflect the *scale**,

*intensity**, and risk of the attributes and operations on the *management unit**.

FF Guidance: On *family forest* Management Units**, an informal , non-technical and qualitative monitoring approach will likely be adequate to ensure compliance for most elements of the monitoring plan. Attributes such as *harvest** volume, and stand stocking, will require quantitative monitoring. Any approach pursued must assure that regular monitoring of the condition of the *forest** is occurring. Unless explicitly stated in the indicator, monitoring protocols are not required to be written; but are expected to be consistently described and implemented by the *Organization**.

C8.1 The *Organization shall *monitor** the implementation of its *management plan**, including its policies and *management objectives**, its progress with the activities planned, and the achievement of its *verifiable targets**. (new)**

Indicator 8.1.1 *The Organization** develops and consistently implements a regular and replicable written protocol to monitor its policies , *management objectives**, and achievement of *verifiable targets** relevant to the Standard.

FF Indicator 8.1.1 *The Organization** describes and implements a protocol to monitor achievement of *management objectives**.

FF Guidance: The protocol does not have to be a written document.

Indicator 8.1.2 The monitoring protocol, evaluates: a) how changes detected in the potential impacts of climate change–related risks and vulnerabilities affect the potential to achieve *management objectives** and *desired future conditions**; and b) the effectiveness of implemented *climate change adaptation strategies**. (per Indicator 7.2.4).

FF Indicator 8.1.2 Not applicable for *family forest* Management Units**. Conformance with Criterion 8.1 for *family forest* Management Units** is addressed through FF Indicator 8.1.1.

Applicability: Item b) is only applicable if *climate change adaptation strategies** are implemented per Indicator 7.2.4.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with this *Indicator**.

C8.2 The *Organization shall *monitor** and evaluate the environmental and social impacts of the activities carried out in the *Management Unit**, and changes in its environmental condition. (C8.2 P&C V4)**

Indicator 8.2.1 *The Organization** develops and consistently implements a regular and replicable written protocol to monitor and evaluate the environmental and social impacts of *management activities** and changes in environmental conditions, aligned with Annex J.

FF indicator 8.2.1 The social and environmental impacts of *management activities** are monitored and documented and aligned with Annex J.

Federal Lands Supplement1 to Indicator 8.2.1 The efficacy of the *riparian management zone** delineation and protection measures are monitored, including their contribution to *riparian* habitat** maintenance and/or *restoration** and recovery of federally listed aquatic and *riparian** populations.

Federal Lands Supplement2 to Indicator 8.2.1 Socio-economic monitoring also includes:

- a. provision of *forest**-related employment and contracting opportunities (see also Indicator 7.2.12),
- b. indices of contractor and subcontractor compliance with applicable labor laws, and
- c. managed public access to, and use of, the *forest** for recreation and other permitted activities (see also Indicator 7.2.12).

Intent: Indicators 6.6.4, 9.4.1, 10.2.2, 10.3.2, 10.7.5, and 10.8.1 explicitly require monitoring and therefore must be addressed in the monitoring protocol. While the other elements of Annex J are not explicitly required, monitoring at some level (for applicable elements of Annex J) will assist with demonstration of conformance with the rest of the Standard.

FF Indicator Guidance: Monitoring is not expected for the aspects of *management activities** that are associated with *Indicators** that have low *risk** designations in this Standard. Monitoring may be informal, but still needs to be documented.

Federal Lands Intent for **Indicator 8.2.1**: Federal Lands Supplement2 to Indicator 6.7.9, Federal Lands Supplement1 and Supplement2 to Indicator 8.2.1, and Federal Lands Supplement to Indicator 10.9.1 explicitly require monitoring and therefore must be addressed in the monitoring protocol.

Federal Lands Guidance for **Federal Lands Supplement2 to Indicator 8.2.1**: Monitoring for item (b) may include data such as OSHA violations, lost-time incident rates, Better Business Bureau *complaints**, and/or stakeholder *complaints** to *The Organization*, and may also include in-field observations by *The Organization*.

Indicator 8.2.2 Stakeholder* responses to management activities are considered when developing monitoring approaches.

Guidance: . *The Organization** is expected to consider whether the input can be addressed through the monitoring program, whether it is aligned with the Standard and can be achieved without detracting from *The Organization's** ability to conform with the rest of the Standard (including Indicator 5.5.1's requirement for ensuring *long-term* economic viability**), whether it conflicts with input received from other *stakeholders** and/or *experts**, and whether it is feasible given the ecological context of the site and/or *management unit**.

It may assist in demonstrating conformance, to document significant *stakeholder** concerns, how the stakeholder input was used or why it was not used, as well as formal and informal

communication with the stakeholder(s).

FF Indicator Guidance: While stakeholder engagement is not required during development of monitoring approaches, any input that *The Organization** receives from stakeholder in response to *management activities** should also be assessed for applicability to monitoring approaches.

Indicator 8.2.3 For *cultural* *sites identified per Indicator 3.5.1 for which the *Native American* Indigenous Peoples** hold *rights**, the opportunity to jointly monitor the sites is offered to *tribal** representatives. *Native American* Indigenous Peoples** that provided input per Indicator 3.2.1 regarding *management activities** that may affect resources and *lands and territories** in which they have an interest are also provided the opportunity to jointly monitor those activities.

FF Indicator 8.2.3 *Cultural** sites identified per Indicator 3.5.1 are monitored. Applicable *Native American** groups are invited to jointly monitor the sites.

Federal Lands Indicator 8.2.4 Monitoring includes the effectiveness of *restoration** strategies per the following indicators and supplementary requirements:

- a. Federal Lands Supplement to Indicator 6.4.3
- b. Indicator 6.5.2
- c. Indicator 6.6.1
- d. Indicator 6.6.3
- e. Indicator 6.6.7
- f. Indicator 6.7.1
- g. Indicator 6.7.7
- h. Federal Lands Indicator 6.7.11
- i. Indicator 6.8.1 and the Federal Lands Supplements to Indicator 6.8.1
- j. Federal Lands Supplement to Indicator 7.2.6, and
- k. Federal Lands Supplement1 to Indicator 10.5.1.

FF Indicator Guidance: Monitoring may be informal, but still needs to be documented.

C8.3 *The Organization shall analyze the results of monitoring and evaluation and feed the outcomes of this analysis back into the planning process. (C8.4 P&C V4)**

Guidance: Per Criterion 7.4, the management plan is expected to be kept up to date, with ongoing revisions to reflect monitoring and evaluation in addition to other information inputs. Revision of the management plan to incorporate monitoring and evaluation results should not be delayed until a formal 10 year revision of the management plan occurs.

Indicator 8.3.1 If monitoring or evaluation indicates that *management objectives** and *verifiable targets** are not being met, the *management plan* is revised.

FF Indicator 8.3.1 (New) If monitoring or evaluation indicates that *management objectives** are

not being met, the *management plan** is revised.

Federal Lands Supplement to Indicator 8.3.1 When socio-economic monitoring per Federal Lands Supplement² to Indicator 8.2.1 indicates that expectations for the identified values are not being met, *The Organization** adapts its systems and/or processes to better achieve the expectations.

Intent: If monitoring confirms *management objectives** are being met, then *management plan** revision is not required.

Indicator 8.3.2 If monitoring or evaluation shows that the *management objectives** and *verifiable targets** are not sufficient to ensure conformance with this Standard, then they are modified.

FF Indicator 8.3.2 (New) If monitoring or evaluation shows that the *management objectives** are not sufficient to ensure conformance with this Standard, then they are modified.

Intent: If monitoring indicates that achievement of *management objectives** results in conformance with the standard, then *management plan** revision is not required.

C8.4 *The Organization** shall make *publicly available** a summary of the results of monitoring free of charge, excluding *confidential information**. (C8.5 P&C V4)

Indicator 8.4.1 While protecting *confidential information**, either full monitoring results or an up-to-date summary of the most recent monitoring information is readily available (per Criteria 8.1 and 8.2) and is available to the public, upon request, at no cost.

FF Indicator 8.4.1 While respecting *confidential information**, a summary of monitoring and evaluation results for relevant elements are provided upon request to *affected stakeholders**.

Guidance: Monitoring results are not expected to be continuously updated; however, upon request, an up-to-date summary should be able to be provided in a reasonable amount of time.

FF Guidance: The summary does not have to be a written document.

C8.5 *The Organization** shall have and implement a tracking and tracing system proportionate to *scale**, *intensity**, and *risk** of its *management activities**, for demonstrating the source and volume in proportion to projected output for each year, of all products from the *Management Unit** that are marketed as FSC certified. (C8.3 P&C V4)

Intent: *Chain of custody** (i.e., CoC) is an important aspect of the FSC system. For products

claimed to be sourced from FSC-certified *forests**, *chain of custody** tracks certified products from the *forest** of origin and traces them throughout the supply chain. The critical first link in the supply chain, and the focus of this *Criterion**, is from the point of harvest to the transfer of ownership, and it is the responsibility of *The Organization** to maintain the integrity of certified products within this first link in the supply chain.

Indicator 8.5.1 When *forest** products are sold as FSC certified, including *non-timber forest products**, *The Organization** implements a documented system to track and trace all products sold from the *Management Unit** until the point of ownership transfer. As part of this system, *The Organization**:

- a. Supports *transaction verification** by providing FSC *transaction** data, as requested by the *certification body**;
- b. Supports *fiber testing** by surrendering samples and specimens of materials and information about *species** composition for verification, as requested by the *certification body**.

Intent: This *Indicator** does not require *The Organization** to maintain a separate *chain of custody** certificate, but rather to be able to sell an FSC-certified product as certified to a *chain of custody** business. Tracking and tracing prevents the mixing of FSC-certified and non-certified *forest** products prior to the point of ownership transfer.

Guidance: The point of ownership transfer is also known as the “forest gate” and may be identified as, for example, the stump, on-site concentration yard, off-site mill/log yard, lump-sum sale/per unit/pre-paid agreement, or log landing.

See Glossary to further understand *transaction verification** and *fiber testing** requirements.

Indicator 8.5.2 *The Organization** maintains records for a minimum of 5 years for forest products that are sold . Records adequately ensure that the requirements under Criterion 5.2 are met. Compiled records include the following:

- a. *species** group;
- b. product name, description, or grade;
- c. volume (or quantity) of product;
- d. information to trace the material to the point of origin;
- e. date or timeframe when the product was harvested, hauled outside the forest gate, or delivered to the purchaser; and
- f. whether the material was sold or delivered as FSC-certified.

Guidance: Actual volumes are used per unit of measure in which the product is sold and estimated volumes are used for lump-sum sales.

Indicator 8.5.3 Sales invoices for the point of ownership transfer and transport documents are kept for a minimum of five years for all FSC-certified products sold or delivered by *The Organization**. Sales invoices identify, at a minimum, the following information:

- a. name and address of purchaser;
- b. the date of ownership transfer;
- c. *species** group;
- d. product name, description, or grade;
- e. the volume (or quantity) of product sold;
- f. *The Organization's** certificate code; and
- g. the FSC claim "FSC 100%," identifying products sold as FSC-certified.

Where sales invoices do not accompany transportation of the product, transport documents and/or other documentation related to certified products track, at a minimum, the following information:

- a. *The Organization's** certificate code;
- b. identification of the purchaser and destination;
- c. the date of transport or delivery;
- d. *species** group;
- e. product name, description, or grade;
- f. the volume (or quantity) delivered;
- g. load or batch reference number; and
- h. reference linking the shipment to the sales invoice.

FF Indicator 8.5.3 Sales documents are kept for a minimum of five years for all FSC-certified products sold. Sales documents identify, at a minimum, the following information:

- a. name and address of purchaser;
- b. the date of ownership transfer;
- c. product name, description, or grade;
- d. the volume (or quantity) of product sold;
- e. *The Organization's** certificate code; and
- f. the FSC claim "FSC 100%," identifying products sold as FSC-certified.

*Species** group information is reported as part of annual audits.

Guidance: Actual volumes are used for per-unit sales and estimated volumes are used for lump-sum sales. Transfer documents are synonymous with delivery documents.

In some situations, *The Organization** that holds the FSC Forest Management certificate and *The Organization** that holds the FSC Chain of Custody certificate are the same entity, and therefore a sales invoice is not generated for materials that are transferred from the Management Unit* to a primary manufacturing facility. In these situations, alternative documentation that contains the information detailed in Indicator 8.5.3, and that can be linked to the materials transferred, will need to be maintained for a minimum of five years.

PRINCIPLE 9: HIGH CONSERVATION VALUES*

***The Organization** shall maintain and/or enhance the *High Conservation Values** in the *Management Unit** through applying the *precautionary approach**. (P9 P&C V4)**

Intent: *High Conservation Values** are managed to maintain or enhance the identified values (*forest** and non-*forest**). In some cases, active management is consistent with these attributes, and in other cases, active management is specifically precluded. All identified *High Conservation Values** are expected to be maintained or enhanced.

FSC introduced the concept of *High Conservation Value** Forests (HCVFs) in 1999 to ensure identification and proper management of *forest** areas with exceptional conservation value. With Principle and Criteria Version 5, FSC re-framed the concept to focus on the values (i.e., *High Conservation Values**) themselves, while also recognizing the importance of the areas that are necessary for the existence and maintenance of the *High Conservation Values** (i.e., *High Conservation Value Area**, HCVA).

The FSC US National *High Conservation Values** Framework (Annex K) is an important tool to be used as a resource for assessing the presence of *High Conservation Values** on the *Management Unit**, as well as managing and monitoring those that are identified. Use of the guidance in Annex K will help to ensure conformance with the *Criteria** of this Principle.

If no *High Conservation Values** are identified via Criterion 9.1 then Criteria 9.2, 9.3, and 9.4 are not applicable.

All *management units**, regardless of size and *scale**, must adequately meet the intent of this *Criterion** the complexity of the assessment (per Indicator 9.1.1) is based on the scale and *intensity** of the operation.

Guidance: Designated *High Conservation Value Areas** may be recognized as part of the *Conservation Area Network**.

Stakeholder engagement** is expected to be timely and provide sufficient details to *stakeholders** to facilitate meaningful comments and input while respecting applicable confidentiality.

*High Conservation Values** are considered to be critical, fundamental, *significant**, or valuable, and therefore any threat to a *High Conservation Value** is considered to be a threat of severe or irreversible damage.

PL Guidance: As with all other forest operations, plantations must adequately meet the intent of this Criterion, though the likelihood of presence may be decreased for some types of *High Conservation Values**.

Federal Lands Guidance for **Principle 9**: As the 'public' for Federal lands is nationwide in scope, consultation and engagement with stakeholders is expected to be nationwide in scope. Therefore, stakeholder consultation and/or engagement associated with Principle 9 indicators is expected to involve stakeholders beyond those located in proximity to the *Management Unit**.

C9.1 The Organization*, through *engagement** with *affected stakeholders**, *interested stakeholders**, and other means and sources, shall assess and record the presence and status of the following *High Conservation Values** in the *Management Unit**, proportionate to the *scale**, *intensity**, and *risk** of impacts of *management activities**, and likelihood of the occurrence of the *High Conservation Values**:

HCV 1 – Species diversity. Concentrations of *biological diversity**, including endemic species and rare, threatened, or endangered species, that are *significant** at global, regional, or national levels.

HCV 2 – Landscape*-level ecosystems* and mosaics. *Intact Forest Landscapes** and large *landscape*-level ecosystems** and *ecosystem* mosaics* that are *significant** at global, regional, or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.

HCV 3 – Ecosystems* and habitats*. Rare, threatened, or endangered *ecosystems**, *habitats**, or *refugia**.

HCV 4 – Critical* ecosystem services*. Basic *ecosystem services** in *critical** situations, including *protection** of water catchments and control of erosion of vulnerable soils and slopes.

HCV 5 – Community needs. Sites and resources fundamental for satisfying the basic necessities of *local communities** or *Indigenous Peoples** (for livelihoods, health, nutrition, water, etc.), identified through *engagement** with these communities or *Indigenous Peoples**.

HCV 6 – Cultural* values. Sites, resources, *habitats**, and *landscapes** of global or national *cultural**, archaeological, or historical significance, and/or of *critical* cultural**, ecological, economic, or religious/sacred importance for the traditional cultures of *local communities** or *Indigenous Peoples**, identified through *engagement** with these *local communities** or *Indigenous Peoples**. (C9.1 P&C V4 and Motion 7:2014)

FF Guidance: The complexity of the assessment is to be based on the *scale** and *intensity** of the operation as well as the likelihood of *high conservation value** presence and the potential of *risk** to *high conservation values**. A simplified checklist approach is available for *family forest* Management Units** in Section 11 of Annex K.

Indicator 9.1.1 A documented assessment is completed using *Best Available Information** that records the location and status of *High Conservation Values**, as defined in *Criterion* 9.1* and the *High Conservation Value Areas** on which they rely, in a manner consistent with the *High Conservation Value* Framework* in Annex K.

Federal Lands Supplement to Indicator 9.1.1 The applicable Federal agency solicits and considers public comments on the *High Conservation Value** assessment methodology.

Guidance: For *medium** and *large* management units**, if *The Organization** already holds FSC Forest Management certification, the assessment is expected to be updated to conform with revised assessment expectations within 2 years of the Standard's effective date. *Family forests* management units** that already hold FSC Forest Management certification are expected to update their assessment to conform with revised assessment expectations within 3 years of the Standard's effective date. If the *Organization** does not hold FSC Forest Management certification at the time of the Standard's effective date, the assessment must

be completed prior to becoming certified.

Input from stakeholder engagement and/or monitoring per Criterion 9.4 may be cause for updating the assessment.

Indicator 9.1.2 If *The Organization** learns of new applicable information, the assessment (per 9.1.1) is updated to incorporate the information.

Indicator 9.1.3 *The Organization** conducts *culturally appropriate* engagement** with affected *rightsholders**, *affected stakeholders**, and *interested stakeholders** and includes the resulting input in the assessment.

FF Indicator 9.1.3 *Engagement** necessary for completion of the *family forest** checklist in Annex K is completed. *Affected stakeholders** whose interests overlap with the *high conservation value** definitions in Criterion 9.1 are given an opportunity to provide input into the assessment. If received, input from *interested stakeholders** is also considered in *good faith**.

Intent: *Stakeholder* engagement** is also expected to occur for updates to the *High Conservation Values** assessment (per Indicator 9.1.1).

Indicator 9.1.4 For *public lands**, *The Organization** conducts a transparent and accessible public review of proposed *High Conservation Values**, *High Conservation Value Areas**, and *management strategies** (per Criterion 9.2). Relevant information from stakeholder consultations and other public review is integrated into *High Conservation Value** and *High Conservation Value Area** descriptions, delineations, and *management strategies**.

Applicability: This *Indicator** only applies to *public lands**.

Guidance: If it is not possible to integrate information received from stakeholder consultations and public review, *The Organization** should document the reason why it was not integrated. Examples of when this situation may occur include stakeholder recommendations that would not result in conformance with the Standard, stakeholder feedback that is in conflict with information received from other stakeholders and/or *experts**, recommendations that are infeasible given the ecological context of the site or *Management Unit**, etc.

C9.2 *The Organization** shall develop effective strategies that maintain and/or enhance the identified *High Conservation Values**, through *engagement* with affected stakeholders**, *interested stakeholders**, and *experts**. (C9.2 P&C V4)

Indicator 9.2.1 *The Organization** identifies and documents the threats to *High Conservation Values** and develops *management strategies** necessary to ensure *High Conservation Value** maintenance and/or enhancement consistent with the *High Conservation Value** Framework in Annex K.

Intent: Where risks to *High Conservation Values** are beyond the control of *The Organization** (e.g., acid deposition, *invasive species** that are infeasible to control), the rationale for lack of

action to address those risks is documented.

Indicator 9.2.2 *The Organization** holds consultations with affected *rightsholders**, *affected stakeholders**, *interested stakeholders**, and *experts** to confirm that effective *management strategies** for the maintenance and/or enhancement of the *High Conservation Values** and *High Conservation Value Areas** have been adopted.

Guidance: *Experts** are normally independent, but may include employees of *The Organization** who possess the requisite expertise. However, external stakeholders with experience pertinent to the *High Conservation Value** must always be consulted.

Consultations may be done concurrently with engagement* associated with other indicators (e.g., Indicator 9.1.3).

FF Guidance: If the *high conservation value** assessment completed by *The Organization** per Criterion 9.1 indicates that there are no *high conservation values** in the *Management Unit**, a consultation with *stakeholders** to confirm effective *management strategies** is not necessary.

Indicator 9.2.3 The *vast majority** of each *Intact Forest Landscape** identified per Indicator 9.1.1 is designated as *core area** and *management strategies** are developed to *protect** these *core areas**. The *management strategies** may allow limited *industrial activity** within *core areas**, but only if all effects of the *industrial activity**, including *fragmentation**:

- a. are restricted to a *very limited portion of the core area**;
- b. do not reduce the *core area** below 123,500 acres; and
- c. will produce clear, substantial, additional *long-term** environmental and social benefits.

Federal Lands Supplement to Indicator 9.2.3 The entirety of each *Intact Forest Landscape** is designated as *core area**.

C9.3 *The Organization** shall implement strategies and actions that maintain and/or enhance the identified *High Conservation Values**. These strategies and actions shall implement the *precautionary approach** and be proportionate to the *scale**, *intensity**, and *risk** of *management activities**. (C9.3 P&C V4)

Indicator 9.3.1 *The Organization** implements the *management strategies** developed per Criterion 9.2 to maintain and/or enhance the *High Conservation Values** identified per Criterion 9.1.

Indicator 9.3.2 *Management activities** implemented in *High Conservation Value Areas** must maintain or enhance the *High Conservation Values** and the extent of the *High Conservation Value Area**. All activities are implemented in a manner consistent with the *precautionary approach**.

Indicator 9.3.3 *The Organization** responds immediately to mitigate negative impacts to *High Conservation Values** resulting from activities implemented by *The Organization** or others and prompt action is taken to *restore** and protect the *High Conservation Values**.

Intent: Per Principle 9, it is the responsibility of The Organization to maintain and/or enhance the *High Conservation Values** in the *Management Unit**. The goal of this *Indicator** is to address damaging activities (not just *management activities**) initiated by *The Organization**, or by others. While there may be some limitations as to what *The Organization** may feasibly be able to do to address others' activities, *The Organization** does have a responsibility to try and control activities of individuals within the *Management Unit**.

In this case, “restore” means to repair the damage done to *High Conservation Values** that resulted from *legal** or illegal activities. However, *The Organization** is not necessarily obliged to restore those environmental values that have been affected by factors beyond the control of *The Organization** when not in scope, for example by natural disasters, by climate change, or by the *legally** authorized activities of third parties, such as public *infrastructure**, mining, hunting, or settlement.

Indicator 9.3.4 If the *High Conservation Values** or the *High Conservation Value Areas** on which they rely cross ownership boundaries, and where *High Conservation Values** maintenance would be improved by coordinated management, *The Organization** attempts to coordinate conservation efforts with adjacent landowners.

C9.4 *The Organization** shall demonstrate that periodic monitoring is carried out to assess changes in the status of *High Conservation Values**, and shall adapt its management strategies to ensure their effective *protection**. The monitoring shall be proportionate to the *scale**, *intensity**, and *risk* of management activities**, and shall include *engagement** with *affected stakeholders**, *interested stakeholders**, and *experts**. (C9.4 P&C V4)

Indicator 9.4.1 *The Organization** implements, or participates in a program to implement, a monitoring protocol that includes periodic monitoring of the status of the specific *High Conservation Values**, and the effectiveness of the *management strategies** implemented to maintain or enhance the values. The monitoring protocol is designed and implemented consistent with the *High Conservation Value** Framework in Annex K .

FF Indicator 9.4.1 On private ownerships, monitoring considers Annex K and is sufficient to identify and describe changes to *high conservation values**.

Guidance: The *intensity** and frequency of monitoring is influenced by the potential for changes or impacts to the *High Conservation Values**. For example where *High Conservation Values** change rapidly or demonstrate ecological instability, or where site-disturbing *management activities** occur, the *intensity** and frequency of monitoring should increase to ensure the maintenance of the *High Conservation Values**. *High Conservation Value Areas** that are not managed and/or are ecologically stable, may have less frequent and a lower *intensity** of monitoring. The monitoring needs to adequately allow *The Organization** to be able to evaluate whether the status of the values has changed.

FF Indicator Applicability: Public ownerships conform with the base indicator.

Indicator 9.4.2 *The Organization** includes *engagement** with affected *rightsholders**, affected

*stakeholders**, *interested stakeholders**, and *experts** in its *High Conservation Values** monitoring program (per Indicator 9.4.1).

FF Indicator 9.4.2 Not applicable for *family forest* Management Units**. Conformance with the intent of Indicator 9.4.2 for *family forest* Management Units** is addressed through FF Indicator 9.1.3.

Guidance: Engagement with *experts**, *rightsholders**, and *stakeholders** will generally be during establishment of the monitoring program, although in some cases consultation may be needed as part of implementing the program.

Input should be evaluated for: whether it can be addressed through the monitoring program; whether it is aligned with the Standard and can be achieved without detracting from *The Organization's** ability to conform with the rest of the Standard (including Indicator 5.5.1's requirement for ensuring *long-term* economic viability**; whether it conflicts with input received from other *stakeholders** and/or *experts**; and whether it is feasible given the ecological context of the site and/or *Management Unit**.

*The Organization** is encouraged to document significant *stakeholder** input and how the input was used or why it was not used, and then respond directly to the *stakeholder** with this information.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with this *Indicator**.

Indicator 9.4.3 *Management strategies** are adapted when monitoring or other new information shows that these strategies are insufficient to ensure the maintenance and/or enhancement of *High Conservation Values**.

PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES

***Management activities** conducted by or for *The Organization** for the *Management Unit** shall be selected and implemented consistent with *The Organization's** economic, environmental, and social policies and *objectives** and in compliance with the *Principles** and *Criteria** collectively. (new)**

C10.1 After harvest or in accordance with the *management plan**, *The Organization** shall, by natural or artificial regeneration methods, regenerate vegetation cover in a timely fashion to pre-harvesting or more *natural conditions**. (new)

Indicator 10.1.1 Harvested sites are regenerated in a timely manner to maintain environmental values identified per Indicator 6.1.1.

Guidance: Timely regeneration is typically demonstrated by achieving:

- The local best management practices* for timely post-harvest stocking levels; or
- Post-harvest stocking levels based on best available information* specific to the site

and the environmental values identified per Indicator 6.1.1.

Indicator 10.1.2 Regeneration activities are implemented in a manner that:

- a. for harvest of existing *plantations*^{*}, regenerate to a vegetative cover that is ecologically similar to what existed prior to the harvest, or to more *natural conditions*^{*} using ecologically well-adapted *species*^{*};
- b. for harvest of *natural forests*^{*} or semi-natural forests^{*}, regenerate to *pre-harvest*^{*} or to more *natural conditions*^{*}.

Guidance: Regarding list item (b), improving the ecological conditions of a degraded *forest*^{*} may be a step-wise process, and initial steps may include activities that temporarily reduce composition, structures, or functions that are native to the site, while still being part of a longer term *restoration*^{*} plan that moves the *forest*^{*} to more *natural conditions*^{*}.

Specific to the Southwest Region

Regional Supplement1 Regeneration is normally through natural regeneration. Artificial regeneration may be used as a supplement when ecologically justified.

Guidance: Examples for when supplemental artificial regeneration might be justifiable include: to fill gaps; restore *species*^{*} diversity; for other restoration; where seed trees are lacking; and as part of *climate change adaptation strategies*^{*} (per Indicator 10.2.2).

Regeneration harvests^{*} should create favorable conditions for natural seedling establishment (e.g., by considering seedbeds and light conditions, leaving seed trees upslope or upwind, and leaving seed trees with desirable phenotypic characteristics, such as straight boles and healthy crowns).

Specific to the Ozark-Ouachita Region

Regional Supplement2 Natural regeneration is used rather than plantings, except when necessary for *restoring*^{*} specific *habitats*^{*}, *stand*^{*} types, or *species*^{*}, or as part of *climate change adaptation strategies*^{*} (per Indicator 10.2.2).

C10.2 *The Organization*^{*} shall use *species* for regeneration that are ecologically well adapted to the site and to the *management objectives*^{*}. *The Organization*^{*} shall use *native species*^{*} and local *genotypes*^{*} for regeneration, unless there is clear and convincing justification for using others. (C10.4 and C10.8 P&C V4)

Guidance: When *non-native species*^{*} are used for regeneration per Indicator 10.2.1 or Indicator 10.2.2, conformance with the indicators of Criterion 10.3 is also required.

TARGETED CONSULTATION QUESTION: *Are there other situations that the Standard Development Group should consider including as exceptions for use of non-native species in Indicator 10.2.1 or Indicator 10.2.2?*

Indicator 10.2.1 *Species** chosen for regeneration are ecologically well adapted to the site and *management objectives**, are *native species**, and are of *local** provenance, unless written justification is provided for using non-*local** *genotypes** of the *native species**.

*Non-native species** are not used for artificial regeneration, except per Indicator 10.2.2, or when:

- a. *non-native tree species** existed in the stand pre-harvest and *management activities** demonstrate a shift to more *natural conditions** over time; or
- b. *non-native tree species** are used as part of *restoration** activities or as part of other ecological objectives that will ultimately result in more *natural conditions**.

FF Indicator 10.2.1 *Species** chosen for regeneration are ecologically well adapted to the site, are *native species**, and are of *local** provenance, unless justification is provided for using non-*local** *genotypes** of the *native species**.

PL Indicator 10.2.1 (*Based on existing US Indicators 10.4.a and 10.4.b*) *Species** used for planting are suitable and appropriate to the site and are consistent with maintaining *Management Unit** health and productivity.

Specific to the Pacific Coast Region

PL Regional Supplement1 On *soils** which historically supported *natural forests**, only *species** native to the site are planted.

Specific to the Mississippi Alluvial Valley, Appalachian, and Southeast Regions

PL Regional Supplement2 The planting of *non-native species** is used only for site *restoration**.

Intent: The goal of this *Indicator** is to maintain *local** genetic diversity.

Guidance: Use of local *genotypes** is demonstrated by knowing the provenance of the seed or plant material and demonstrating that the material is sourced from a compatible seed zone.

Hybrids comprised of *native species** and *non-native species** are not allowed unless there is long-term research to indicate that the *non-native species** is not a threat to other *native species** and the *non-native species** is not a *genetically modified organism**.

Examples for when *non-native species** might be used as part of *restoration** activities include: when used as a short-term cover while allowing other species to establish; and planted stands established on degraded, *semi-natural forests** as part of a restoration process.

FF Indicator Guidance: Justification may be provided orally.

PL Indicator Guidance: Criterion 6.9 addresses establishment of *plantations**.

Indicator 10.2.2 *The Organization** has the option to develop a plan to allow for the use of *non-native species** of North American origin for regeneration when *non-local** *genotypes** of *native species** are either not adequate for maintaining or enhancing *local** diversity as part of *climate change adaptation strategies**, or not an option due to disease or pest vulnerabilities. A plan:

- a. prioritizes use of *non-native species** in the following manner:
 - i. *species** that are native to and sourced from the broader ecoregion in which the *management unit** occurs;
 - ii. *species** that are native to and sourced from neighboring regions; and
 - iii. *species** that are native to and sourced from the North American continent.
- b. is based on *Best Available Information** that demonstrates that the performance of *non-native species** will result in greater benefit to wildlife, *water quality**, climate change adaptation, and other values compared to *native species**;
- c. includes maps of planted areas; and
- d. is developed in collaboration with *experts** who have knowledge and experience with the *non-native species** being considered and potential ecological effects of its introduction.

FF Indicator 10.2.2 Not applicable for *family forest** *Management Units** due to the scale and *intensity** of *management activities**.

Guidance: Indicator 10.2.2 is not applicable to the use of biological control agents. Biological controls are addressed in Criterion 10.8.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest** *Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest** *Management Units**.

C10.3 *The Organization** shall only use *alien species** when knowledge and/or experience have shown that any invasive impacts can be controlled and effective mitigation measures are in place. (C6.9 and C10.8 P&C V4)

Intent: This *Criterion** applies to how *non-native species** are controlled and monitored, and includes all *non-native species**, including trees and other plants (e.g., herbaceous *erosion** control mixes or plants used for wildlife food and cover) and animals used in *forest** management.

Indicator 10.3.1 The use of *non-native species** is contingent on the availability of *best available information** indicating that any such *species** is non-invasive and its application does not pose a risk to native *biodiversity**.

Intent: This *Indicator** also covers seed mixes and *species** used for *erosion** control.

Guidance: State lists of *invasive species** should generally be used as the basis for determining if a *species** is invasive. New cultivars, hybrids, and uncommon plants (e.g., some of those promoted for use on wildlife food plots) may not have been evaluated by state invasive plant councils. If such *species** and/or varieties are being used, then *The Organization** is expected to consult with a state *expert** in *invasive species** .

The *Organization** has the responsibility to research any species intended for use, for which no local data is already available, in accordance with the precautionary approach*.

Indicator 10.3.2 If *non-native species** are used:

- a. the planting is spatially and temporally explicit,
- b. the location and provenance are documented
- c. a documented plan to carefully monitor *non-native species** to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts is developed
- d. the ecological effects are actively monitored and documented, and
- e. effective mitigation measures are in place to control their spread outside the area in which they are established.

Guidance: Monitoring *intensity** reflects the persistence and risk posed by the *species** and may be justified by consultation with regional *experts** or literature.

Indicator 10.3.3 *The Organization** takes timely action to control any adverse impacts resulting from their use of *non-native species** .

Applicability: If *The Organization** is in conformance with Indicator 10.3.1 and an outbreak of a *non-native species** occurs, then the outbreak of the *non-native species** does not necessarily constitute non-conformance with item (e) of Indicator 10.3.2.

Intent: This *Criterion** is specifically for cases that involve the intentional use of *non-native species** —it does not address *invasive species** (this is addressed in Indicator 6.6.4).

FF Guidance: Control efforts should be within their financial capacity and aim to minimize any further adverse impacts.

C10.4 *The Organization** shall not use *genetically modified organisms** in the *Management Unit**. (C6.8 P&C V4)

Indicator 10.4.1 *Genetically modified organisms** (i.e., GMOs) are not used.

Intent: FSC-POL-30-602 *Genetically Modified Organisms** provides a definition and guidance on the interpretation of Indicator 10.4.1 .

Genetically improved organisms (e.g., Mendelian crossed) are not considered to be *genetically modified organisms** (i.e., results of genetic engineering) and may be used. The

prohibition of *genetically modified organisms** applies to all organisms, including trees.

C10.5 *The Organization shall use silvicultural practices that are ecologically appropriate for the vegetation, species, sites, and *management objectives**. (new)**

Indicator 10.5.1 *Silvicultural** practices are implemented that are ecologically appropriate (per Indicator 7.2.14 or FF Indicator 7.2.1, as applicable) for the site and *management objectives**.

Federal Lands Supplement1 to Indicator 10.5.1 When implementing *restoration harvests**, the applicable Federal agency demonstrates that, prior to the harvest:

- a. Both harvest and non-harvest alternatives for achieving *restoration** objectives were considered;
- b. The alternatives' short and long-term impacts on ecological values and *High Conservation Values** were assessed, along with their effectiveness at restoring the desired native *ecosystem** values; and
- c. The *restoration harvest** approach was the alternative (per Item b) that best balanced positive and negative impacts, while also maintaining effectiveness.

Federal Lands Supplement2 to Indicator 10.5.1 When implementing salvage harvests, the applicable Federal agency demonstrates that the harvest was designed around restoration objectives, and that prior to the harvest:

- a. Both harvest and non-harvest alternatives were considered;
- b. The alternatives' short and long-term effects on ecological values, *High Conservation Values**, and forest resilience were assessed, including effects on water quality, wildlife that utilize *snags** or other *habitats** arising from natural disturbance, subsequent fuel loads and fire resiliency (where relevant), public safety, and *local communities**; and
- c. The salvage harvest approach was the lowest negative impact alternative (per Item b).

Guidance: Harvesting practices which degrade the long-term ecological or *economic viability** of the residual stand (e.g., *high-grading**), and/or do not sustain *forest** *ecosystems** over the *long term**, do not meet the requirements of Indicator 5.2.4, Indicator 6.6.2, Indicator 7.2.14, Indicator 10.11.4, nor Indicator 10.5.1.

C10.6 *The Organization shall minimize or avoid the use of *fertilizers**. When *fertilizers** are used, *The Organization** shall demonstrate that use is equally or more ecologically and economically beneficial than use of *silvicultural** systems that do not require fertilizers, and prevent, mitigate, and/or repair damage to *environmental values**, including soils. (C10.7 P&C V4 and Motion 2014#7)**

Applicability: Mitigation or repair of damage to environmental values (identified per Indicator 6.1.1) resulting from use of *fertilizer** is addressed through Indicator 6.3.2.

Indicator 10.6.1 The use of *fertilizers** is minimized or avoided. *Fertilizer** is applied only when all of the following conditions are met:

- a. One of the following situations exists: *Soil** classification or foliar analysis indicates one or more nutrients are a limiting factor for *forest** productivity; fertilizers are needed to improve control of *erosion** and/or sedimentation; or fertilizers are needed for effective reclamation of highly degraded sites.
- b. The ecological benefits of using *fertilizers** are equal or greater than the benefits of *management strategies** with similar outcomes that do not require their use.
- c. The economic benefits of using *fertilizers** are equal or greater than the benefits of *management strategies** with similar outcomes that do not require their use.
- d. Where necessary, measures are taken to *protect** environmental values and prevent damage from *fertilizer** runoff or leaching, including negative impacts on native low-nutrient *ecosystems**, or below-ground or surface *water quality**.
- e. *Fertilizer** application maintains or enhances *soil** condition and site productivity.
- f. *Fertilizer** types, rates, frequencies, and site of application are documented.

FF Indicator 10.6.1 Low *risk** of non-conformance, and if a non-conformance were to go undetected, there is a low *risk** of negative impacts to social or environmental values due to the *scale** of the *Management Unit**.

Guidance: *Fertilizer** use is minimized or avoided in *natural forests** and *semi-natural forests**. *Best available information** is expected to be used to substantiate the ecological and economic benefits of using fertilizer (per list items (b) and (c)).

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

C10.7 *The Organization** shall use *integrated pest management** and *silviculture** systems which avoid, or aim at eliminating, the use of chemical *pesticides**. *The Organization** shall not use any chemical *pesticides** prohibited by FSC policy. When *pesticides** are used, *The Organization** shall prevent, mitigate, and/or repair damage to *environmental values** and human health. (C6.6 and C10.7 P&C V4)

Applicability: Mitigation or repair of damage to environmental values (identified per Indicator 6.1.1) resulting from use of *pesticides** is addressed through Indicator 6.3.2.

Intent: This *Criterion** is guided by the FSC Pesticides Policy (FSC-POL-30-001 EN).

This *Criterion** and its *Indicators** require that *The Organization** strive to reduce the use of *chemical pesticides** and work toward their eventual phase-out whenever feasible, consistent with the *FSC Pesticides Policy*. Striving to reduce and eventually eliminate the use of *chemical pesticides** may include continually seeking and considering advancements in science and technology and market signals (i.e. those that make alternative control measures

operationally or financially feasible),

Guidance: A *pesticide** is any substance, or mixture of substances of chemical or biological ingredients, intended for repelling, destroying, or controlling any pest or regulating plant growth. This includes insecticides, rodenticides, acaricides, molluscicides, larvacides, nematocides, fungicides, and herbicides. A *chemical pesticide** is any synthetically produced *pesticide**.

Per the FSC Pesticides Policy, *The Organization** is required to use *integrated pest management** to consider and document the different control techniques available and look for non-chemical methods.

If the *integrated pest management** indicates that use of a *chemical pesticide** is the best control technique, the FSC Pesticides Policy requires a comparison of different potential *chemical pesticides** to determine which will provide the best outcomes (i.e., greatest effectiveness and equal or greater social and environmental benefits with the least potential for social and environmental damages when compared to other options)., and then documentation (i.e., an Environmental and Social Risk Assessment) of identified *risks** and *risk** mitigation to be implemented for the *chemical pesticide** selected. These different components of an overall pest management strategy are addressed by a number of *Indicators** in this *Criterion**, but may be addressed by *The Organization** in either a single document, or a collection of documents and documented information.

Indicator 10.7.1 *Integrated pest management** (i.e., IPM), including selection of *silviculture** systems, is used to avoid, or aim to eliminate, the frequency, extent, and amount of *chemical pesticide** applications, and result in non-use or overall reductions in applications. Use of *integrated pest management** is documented.

Intent: There is no termination point for the *integrated pest management**. The *integrated pest management** should continually aim to avoid and eliminate the use of *chemical pesticides** by considering information such as advancements in science and technology and market signals (i.e., those that make alternative control measures operationally or financially feasible).

Guidance: Strategies for controlling vegetation or other pests that minimize negative environmental effects may include: creation and maintenance of *habitat** that discourages pest outbreak; creation and maintenance of *habitat** that encourages natural predators; evaluation of pest populations and establishment of action thresholds; diversification of *species** composition and structure; use of low-impact mechanical methods; use of prescribed fire; use of longer rotations or selection harvest; use of uneven-age management.

FF Guidance: Documentation of *integrated pest management** may be brief and less technical for *family forest* Management Units**.

Indicator 10.7.2 Prior to using *chemical pesticides**, the requirements of the Environmental and Social Risk Assessment (ESRA) framework for Organizations (FSC-POL-30-001 V3-0 FSC Pesticides Policy clause 4.12) are met.

Guidance: FSC US provides guidance for *The Organization** to meet the requirements of Environmental and Social Risk Assessments. This guidance can be found on the FSC US web site (<https://us.fsc.org>). However, it is not necessary to use FSC templates for Environmental and Social Risk Assessments, as long as the same information is included.

For *chemical pesticides**, particularly those that are not listed as *highly hazardous pesticides** by FSC (FSC-POL-30-001a), the Safety Data Sheet and *pesticide** label together may provide much of the information needed for the Environmental and Social Risk Assessment.

FF Guidance: Documentation of the Environmental and Social Risk Assessment may be brief and less technical for *family forest* Management Units**.

Indicator 10.7.3 When *pesticides** (biological or *chemical**) are used, *The Organization** demonstrates that::

- a. the selected *pesticide**, application method, timing and pattern of use offers the least *risk** to humans and non-target *species**; and
- b. objective evidence supports that the *pesticide** is the only effective, practical, and cost-effective way to control the pest.

Indicator 10.7.4 Written plans for implementation of significant *management activities** (per Indicator 10.11.1), and/or supplementary records, document *pesticide** (biological or *chemical**) use.

Guidance:

Indicator 10.11.1 addresses the need for written plans to be developed prior to harvesting and other significant site-disturbing *management activities**, including application of *pesticides** (biological or *chemical**).

Records of *pesticides** used should include trade name, active ingredient, quantity of active ingredient used, period of use, number and frequency of applications, location and area of use and reason for use.

FF Guidance: Documentation of pesticide prescriptions may be brief and less technical for *family forest* Management Units**, such as keeping a log or list of chemical use and application dates, rates, methods of application, and the application area.

Indicator 10.7.5 When *chemical pesticides** are used, the effects are monitored and incidences of *worker** exposure to *chemical pesticides** are documented. Environmental and Social Risk Assessments (per Indicator 10.7.2) and management activity* implementation plans (per Indicator 10.11.1) are revised when needed to avoid damage to human health and the environment.

Intent: This *Indicator** addresses damage to human health that results from improper use of *pesticides** (i.e., use that contradicts the *pesticide** label and/or *The Organization's** Environmental and Social Risk Assessment).

Monitoring may be brief and less technical for *family forest* Management Units**, such as

keeping a log of chemical use and effectiveness.

Indicator 10.7.6 *Pesticide** (biological or chemical) use complies with the pesticide label, Safety Data Sheet (SDS), and The Organization's Environmental and Social Risk Assessment (per Indicator 10.7.2).

C10.8 *The Organization** shall minimize, *monitor**, and strictly control the use of *biological control agents** in accordance with *internationally accepted scientific protocols**. When *biological control agents** are used, *The Organization** shall prevent, mitigate, and/or repair damage to *environmental values**. (C6.8 P&C V4)

Applicability: Mitigation or repair of damage to environmental values (identified per Indicator 6.1.1) resulting from use of *biological control agents** is addressed through Indicator 6.3.2.

FF Indicator Intent: *Indicators** that have been designated as 'low risk' for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

Indicator 10.8.1 The use of *biological control agents** is minimized, *monitored**, and controlled. *Biological control agents** are used only as part of *The Organization's* integrated pest management** system per Indicator 10.7.1, and when *best available information** indicates that: a) the ecological benefits of using *biological control agents** are greater than the benefits of using other *management strategies** with similar outcomes; and b) that the agents in question are non-invasive and are safe for *native species**.

FF Indicator 10.8.1 Low *risk** of non-conformance, and if a non-conformance were to go undetected, there is a low *risk** of negative impacts to social or environmental values due to the *scale** of the *Management Unit**.

Indicator 10.8.2 Use of *biological control agents** complies with *internationally accepted scientific protocols** (e.g., Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for the Import and Release of Exotic Biological Control).

FF Indicator 10.8.2 Low *risk** of non-conformance, and if a non-conformance were to go undetected, there is a low *risk** of negative impacts to social or environmental values due to the *scale** of the *Management Unit**.

Indicator 10.8.3 The use of *biological control agents** is recorded, including type, quantity, period, location, and reason for use.

C10.9 *The Organization** shall assess *risks** and implement activities that reduce potential negative impacts from *natural hazards** proportionate to *scale, intensity, and risk**. (new)

Indicator 10.9.1 *Management activities** are implemented to mitigate, within *The Organization's** sphere of influence, potential negative impacts of *natural hazards** on

*infrastructure**, *forest** resources, and communities in the *Management Unit**, while maintaining the *ecosystem** function of natural disturbances where feasible.

FF Indicator 10.9.1 Low *risk** of non-conformance, and if a non-conformance were to go undetected, there is a low *risk** of negative impacts to social or environmental values due to the *scale** of the *Management Unit**.

Federal Lands Supplement to Indicator 10.9.1 The applicable Federal agency assesses ecological and human safety risks from fire and fire suppression activities, and identifies the most effective mitigation approaches for these risks based on: (1) natural fire regimes, (2) risk of wildfire, (3) potential economic losses, (4) public safety, and “(5) opportunities to maintain and restore natural resilience to fire. Impacts of fire and fire suppression activities are monitored.

Guidance: In *forest** types that are fire-adapted or at risk of wildfire, *The Organization** identifies and applies site-specific fuels management practices, based on: 1) natural fire regimes; 2) risk of wildfire; 3) potential economic losses; 4) public safety; and 5) *applicable laws** and regulations.

Mitigation of the impact of natural hazards* is expected to support resilience as opposed to eliminating or preventing the occurrence of the *natural hazards**.

FF Indicator Intent: *Indicators** that have been designated as ‘low risk’ for *family forest* Management Units** do not need to be audited for *family forest* Management Units** unless the *Certification Body** observes and/or is presented with information which suggests that it is possible that *The Organization** is not in conformance with the *Indicator**.

PL Guidance: Methods could include:

- maintaining a diversity of tree *species** genetic stock within and among *stands**;
- maintaining a diversity of *age classes** across the *landscape**; and/or
- maintaining sufficient *habitat** across the *landscape** for *native species** that are predators of *plantation* pests*.

Indicator 10.9.2 *Management activities** are implemented to increase the *resilience** of *ecosystems** to *catastrophic natural disturbances** identified per Indicator 6.1.1.

FF Indicator 10.9.2 Not applicable for *family forest* Management Units**. Conformance with Criterion 10.9 for *family forest* Management Units** is addressed through Indicator 10.9.1.

Guidance: In the context of climate change, linkages may exist between expected future impacts of climate change and *catastrophic natural disturbances**. The fuels management practices described per Indicator 10.9.1 Guidance may be relevant in this context. The Climate Change Toolkit in Annex L provides additional resources.

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as ‘not applicable’ for *family forest* Management Units**.

C10.10 The Organization* shall manage *infrastructural development, transport activities, and *silviculture** so that water resources and soils are protected, and disturbance of and damage to *rare and threatened species**, *habitats**, *ecosystems**, and *landscape values** are prevented, mitigated, and/or repaired. (C6.5 P&C V4)**

The elements of the Criterion are addressed through the Indicators* of Criteria 3.2, 3.5, 4.5, 5.1, 5.4, 6.1, 6.3, 6.4, 6.7, and 6.8 and as such no Indicators* are included here. Any non-conformances shall be assessed to the Indicators* of these other Criteria*.*

C10.11 The Organization* shall manage activities associated with harvesting and extraction of timber and *non-timber forest products so that *environmental values** are conserved, merchantable waste is reduced, and damage to other products and services is avoided. (C5.3 and C6.5 P&C V4)**

Indicator 10.11.1 Written plans for harvesting and other significant site-disturbing *management activities** required to carry out the *management plan** are prepared prior to implementation. Plans clearly describe the activity, the relationship to *management objectives**, outcomes, measures to *protect** and/or enhance potentially affected environmental (per Indicator 6.1.1) and social values (per Criteria 1.2, 3.2, 3.5, 4.1.,and 4.5) , and health and safety measures (Per Criteria 2.3 and 10.7), and include maps of adequate detail.

For *public lands**, plans are made available to the public prior to commencement of significant site-disturbing *management activities**.

Intent: This *Indicator** ensures that potential impacts and outcomes of site-specific activities are addressed in a way that reflects the intent of a more general (not site-specific) *management plan**. Plans may address multiple sites with similar planned activities.

Desired outcomes include both the immediate post-activity condition (e.g., stocking and composition) and desired longer-term outcomes (e.g., regeneration).

Other significant site-disturbing *management activities** may include, but are not limited to: site preparation, prescribed burns, use of *pesticides** (chemical or biological) or *biological control agents**, and road building or significant road maintenance.

Guidance: Operation plans may be integrated into the *management plan** (more likely on small ownerships) or be a separate document prior to the activity (e.g., a form or narrative, with associated map).

Harvest activity descriptions include the *silvicultural** system and specific activity, and desired post-harvest condition and other outcomes (e.g., regeneration). Harvest practices which degrade the long-term ecological or *economic viability** of the residual stand, and/or do not sustain *forest* ecosystems** over the *long term**, do not meet the requirements of Indicator 5.2.4, Indicator 10.1.2, Indicator 10.5.1, nor Indicator 7.2.14.

“Significant” site-disturbing management activities include larger-scale activities and/or activities with longer-lasting effects. Maintenance of existing roads will typically not require written plans per Indicator 10.11.1. Development of a plan should not cause delay in

emergency situations, such as response to wildfire or other emergency response efforts.

This *Indicator** may be addressed with a combination of documents, such as contracts, maps, *best management practices**, and pre-harvest checklists.

For *public lands**, *The Organization** should address public comments as part of the process of revising plans developed per Indicator 10.11.1.

FF Guidance: Written plans may be brief and less technical for *family forest* Management Units**.

Indicator 10.11.2 *The Organization** optimizes the use of harvested *forest** products and minimizes the loss and/or waste of harvested *forest** products.

FF Indicator 10.11.2 Not applicable for *family forest* Management Units**. Conformance with Criterion 10.11 for *family forest* Management Units** is addressed through Indicators 10.11.1, 10.11.3 and 10.11.4.

Guidance: "Waste" consists of damage or underutilization of harvested products, except where portions of harvested material need to be left on-site to maintain *woody debris**, nutrient cycling, or other ecological functions (see Criterion 6.6 and the other *Indicators** of this *Criterion**).

FF Indicator Intent: The *Certification Body** is not expected to assess conformance of *family forest* Management Units** with *Indicators** that have been designated as 'not applicable' for *family forest* Management Units**.

Indicator 10.11.3 *Management activities**, including site preparation, harvest prescriptions, timing, and equipment, are selected and used to protect *soil**, water resources, residual trees, and other *forest** resources. This includes:

- a. Logging and other activities that significantly increase the *risk** of landslides are excluded in areas where risk of landslides is high.
- b. Slash is concentrated only as much as necessary to achieve the goals of site preparation and the reduction of fuels to moderate or low levels of fire hazard.
- c. *Whole tree removal**, when used for part or the entirety of a *harvest unit**, is only implemented when *best available information** indicates that it will ensure the *long-term** health of the *soil**, and the site overall, including environmental and social values.
- d. Disturbance of topsoil is limited to the minimum necessary to achieve successful regeneration of *species** native to the site.
- e. *Rutting** and compaction are minimized.
- f. *Soil* erosion** is not accelerated.
- g. Broadcast or under burning is only done when consistent with *natural disturbance regimes**, or where risk of wildland fire needs to be mitigated.
- h. Natural ground cover disturbance is minimized to the extent necessary to achieve regeneration objectives.
- i. Residual trees are not significantly damaged to the extent that health, growth, or values are affected.

- j. Damage to non-timber forest products* is minimized.
- k. In *plantations**, intensive practices, such as windrowing, bedding, and/or ripping, are used only when required to achieve successful regeneration and when negative ecological impacts of these intensive practices are described and mitigated.

Intent: This *Indicator** includes *soil** productivity, function, *habitat** (including the leaf litter layer and fine *woody debris**), and *non-timber forest products** in all stands, management systems, and harvest objectives.

Guidance: Attention to this *Indicator** is expected to increase with the amount and frequency of woody material removed from the site (e.g., biomass removals and whole-tree harvests).

Decisions are made based on objective data regarding *slope**, *erosion**-hazard rating, potential for *soil** compaction, *rutting**, and risk of landslides.

To *protect* soils** in areas having a high risk of landslides, logging plans should include tree *retention** critical for *slope** stability, and low-impact harvesting systems such as skyline cable or helicopter.

Clearcutting and other activities that significantly increase the *risk** of failure should not be conducted on unstable *slopes**.

All *soil**-disturbing activities, including road and trail construction, are conducted only during periods of weather when *soil** compaction, *rutting**, surface *erosion**, or sediment transport into streams and other *water bodies** can be adequately controlled. *Soils** should be dry enough or frozen to minimize disturbance and compaction.

Harvesting practices which degrade the long-term ecological or *economic viability** of the residual stand (e.g., *high-grading**), and/or do not sustain *forest* ecosystems** over the *long term**, do not meet the requirements of Indicator 5.2.4, Indicator 6.6.2, Indicator 7.2.14, Indicator 10.5.1, nor Indicator 10.11.4.

In addition, the following guidance is region-specific:

Pacific Coast (PC):

- On *slopes** greater than 30%, ground-based yarding should be used only when it is possible to do so without exacerbating *soil* erosion**.
- On *slopes** greater than 50%, cable or helicopter logging should be used if it is technically feasible and will not result in adverse environmental effects due to the management operation.

Ozark-Ouachita Region (OO):

- Deepening and scouring of existing drainages due to *silvicultural** or logging operations should be absent.

C10.12 *The Organization shall dispose of *waste materials** in an environmentally appropriate manner. (C6.7 P&C V4)**

Indicator 10.12.1 Collection, clean-up, transportation, and disposal of all *waste materials** is done in an environmentally appropriate way that conserves environmental values identified per Indicator 6.1.1.

Guidance: *Waste materials** include: lubricants, anti-freeze, hydraulic fluids, containers, *pesticides**, paints, batteries, fuels and oils, trash, abandoned equipment, etc.

Indicator 10.12.2 Hazardous materials are stored in leak-proof containers in designated storage areas, outside of *riparian management zones**, and away from other ecologically sensitive features, until they are used or transported to an approved off-site location for disposal. There is no evidence of persistent fluid leaks from equipment or of recent groundwater or surface water contamination. Local *best management practices** or *local laws** and regulations regarding hazardous materials are followed.

Intent: "Off-site" refers to a designated disposal location formally recognized and/or designated by a *local** government authority.

Annex A: Glossary

Term	Definition
Adaptive management	A systematic process of continually improving management policies and practices by learning from the outcomes of existing measures. [Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website.]
Administrative requirements	Administrative rules, procedures, or regulations that have been promulgated to carry out laws.
Affected stakeholder	<p>Any person, group of persons or entity that is or has a high probability of being subject to the effects of the activities of a <i>Management Unit</i>[*]. Examples include but are not restricted to (for example in the case of downstream landowners), persons, groups of persons or entities located in the neighborhood of the <i>Management Unit</i>[*]. The following are examples of <i>affected stakeholders</i>[*]:</p> <ul style="list-style-type: none"> • <i>local communities</i>[*] • <i>indigenous peoples</i>[*] • <i>workers</i>[*] • <i>forest</i>[*] dwellers • neighbors • downstream landowners • local processors • local businesses • tenure and use <i>rights holders</i>[*], including landowners, organizations authorized or known to act on behalf of <i>affected stakeholders</i>[*], for example social and environmental NGOs, labor unions, etc. <p>[Source: FSC-STD-01-001 V5-2]</p>
Age class	Intervals into which the age range of trees is divided; also, the trees falling into such an interval.
Alien species	See <i>non-native species</i> [*] .
Applicable law	Means applicable to <i>The Organization</i> [*] as a legal person or business enterprise in or for the benefit of the <i>Management Unit</i> [*] and those laws which affect the implementation of the FSC Principles and Criteria. This includes any combination of statutory law (Parliamentary-approved) and case law (court interpretations), subsidiary regulations, associated administrative procedures, and the national constitution (if present) which invariably takes legal precedence over all other legal instruments. [Source: FSC-STD-01-001 V5-2]
Aquatic habitat	<i>Habitat</i> [*] for plants and animals that has surface water essential to an organism's survival, as differentiated from <i>wetland</i> [*] <i>habitats</i> [*] characterized

	by saturated <i>soils*</i> or <i>riparian areas*</i> . Examples include streams, ponds, and <i>vernal ponds*</i> .
Best Available Information	Data, facts, documents, <i>expert*</i> opinions, <i>traditional knowledge*</i> , and results of field surveys or consultations with <i>stakeholders*</i> that are most credible, accurate, complete, and/or pertinent and that can be obtained through <i>reasonable*</i> effort and cost, subject to the <i>scale*</i> and <i>intensity*</i> of the <i>management activities*</i> and the <i>precautionary approach*</i> . [Source: Adapted from FSC-STD-60-004 V2-0] NOTE: Peer-reviewed scientific literature, <i>traditional knowledge*</i> and <i>experts*</i> should be the primary sources of information, with other sources used when these are not available.
Best management practices (BMPs)	A practice considered by the state or authorized tribe to be the most effective means (technological, economic, and institutional) of preventing or reducing environmental or social impacts, including for water, roads, runoff, etc. <i>Best management practices*</i> are generally identified by states or <i>tribal*</i> entities and, in the case of <i>water quality*</i> , approved by the US EPA.
Binding agreement	A deal or pact, written or not, which is compulsory to its signatories and enforceable by law. Parties involved in the agreement do so freely and accept it voluntarily. [Source: FSC-STD-60-004 V2-0]
Biological control agents	Living organisms used to eliminate or regulate the population of other living organisms. [Source: Based on FSC-STD-01-001 V4-0 and World Conservation Union (IUCN). Glossary definitions as provided on IUCN website.]
Biological diversity (biodiversity)	The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic <i>ecosystems*</i> and the ecological complexes of which they are a part; this includes diversity within <i>species*</i> , between <i>species*</i> and of <i>ecosystems*</i> . [Source: Convention on Biological Diversity 1992, Article 2]
Buffer/buffer zones	A strip of vegetation that is left or managed to reduce the impact of a treatment or action of one area on another. Examples include <i>riparian management zones*</i> , <i>conservation* buffers*</i> around rare bird nests, and <i>conservation* buffers*</i> around cultural sites of significance.
Catastrophic natural disturbances	The natural events that significantly alter the <i>forest*</i> at the <i>landscape*</i> level.
Certification Body (CB)	FSC-accredited body that performs third-party auditing services.
Chain of custody	The path taken by raw materials, processed materials, finished products,

(CoC)	and co-products from the <i>forest*</i> to the consumer or (in the case of reclaimed/recycled materials or products containing them) from the reclamation site to the consumer, including each stage of processing, transformation, manufacturing, storage and transport where progress to the next stage of the supply chain involves a change of ownership (independent custodianship) of the materials or the product. [Source: FSC-STD-40-004 V2-1]
Chemical pesticides	Synthetically produced <i>pesticides*</i> . [Source: FSC-POL-30-001 V3-0]
Child labor	<p>“Oppressive <i>child labor*</i>” means a condition of employment under which</p> <p>(1) any employee under the age of sixteen years is employed by an employer (other than a parent or a person standing in place of a parent employing his own child or a child in his custody under the age of sixteen years in an occupation other than manufacturing or mining or an occupation found by the Secretary of Labor to be particularly hazardous for the employment of children between the ages of sixteen and eighteen years or detrimental to their health or well-being in any occupation, or</p> <p>(2) any employee between the ages of sixteen and eighteen years is employed by an employer in any occupation which the Secretary of Labor shall find and by order declare to be particularly hazardous for the employment of children between such ages or detrimental to their health or well-being; but oppressive <i>child labor*</i> shall not be deemed to exist by virtue of the employment in any occupation of any person with respect to whom the employer shall have on file an unexpired certificate issued and held pursuant to regulations of the Secretary of Labor certifying that such person is above the oppressive child-labor age. The Secretary of Labor shall provide by regulation or by order that the employment of employees between the ages of fourteen and sixteen years in occupations other than manufacturing and mining shall not be deemed to constitute oppressive <i>child labor*</i> if and to the extent that the Secretary of Labor determines that such employment is confined to periods which will not interfere with their schooling and to conditions which will not interfere with their health and well-being. [Source: The Fair Labor Standards Act of 1938, as amended; 29 U.S.C. 201]</p>
Climate change adaptation strategies	<i>Climate change adaptation strategies*</i> associated with <i>ecosystems*</i> and <i>biodiversity*</i> are generally categorized into three types: resistance, <i>resilience*</i> , and facilitated transformation. Resistance strategies maintain the current system for as long as possible even as changes occur. <i>Resilience*</i> strategies help a system cope with a changing climate,

	<p>particularly through maintenance of critical ecological processes. Facilitated transformation strategies facilitate transitions within a system to better align the system with anticipated future climate conditions.</p>
Collective bargaining	<p>A voluntary negotiation process between employers or employers' organization and <i>workers' organization</i>*, with a view to the regulation of terms and conditions of employment by means of collective agreements. [Source: ILO Convention 98, Article 4]</p>
Complaint	<p>The expression of dissatisfaction or concern by any person or organization presented to <i>The Organization</i>*, relating to its <i>management activities</i>* or its conformity with the FSC Principles and Criteria, where a response is expected. [Source: Adapted from FSC-STD-60-004 V1-0 definition of dispute and Merriam-Webster]</p>
Confidential information	<p>Private facts, data and content that, if made publicly available, might put at risk <i>The Organization</i>*, its business interests or its relationships with stakeholders, clients and competitors. [Source: FSC-STD-60-004 V2-0]</p>
Connectivity	<p>A measure of how connected or spatially continuous a corridor, network, or matrix is. The fewer gaps, the higher the <i>connectivity</i>*. Related to the structural <i>connectivity</i>* concept; functional or behavioral <i>connectivity</i>* refers to how connected an area is for a process, such as an animal moving through different types of <i>landscape</i>* elements. Aquatic <i>connectivity</i>* deals with the accessibility and transport of materials and organisms, through groundwater and surface water, between different patches of aquatic <i>ecosystems</i>* of all kinds. [Source: Based on R.T.T. Forman. 1995. <i>Land Mosaics</i>. The Ecology of Landscapes and Regions. Cambridge University Press, 632pp]</p>
Conservation/ Protection	<p>These words are used interchangeably when referring to <i>management activities</i>* designed to maintain the identified environmental or cultural values in existence <i>long-term</i>*. <i>Management activities</i>* may range from zero or minimal interventions to a specified range of appropriate interventions and activities designed to maintain, or compatible with maintaining, these identified values. [Source: FSC-STD-01-001 V5-2]</p>
Conservation Areas Network	<p>Those portions of the <i>Management Unit</i>* for which <i>conservation</i>* is the primary and, in some circumstances, exclusive objective; such areas include <i>Representative Sample Areas</i>*, <i>conservation zones</i>*, protection areas, <i>connectivity</i>* areas, and <i>High Conservation Value Areas</i>*. [Source: FSC-STD-60-004 V2-0]</p>
Conservation zone	<p>Areas designated within which maintenance and/or <i>restoration</i>* of such <i>species</i>* and community type(s) are the highest priority. Harvesting timber, other <i>management activities</i>*, and other uses are allowed within <i>conservation zones</i>* if they do not detract from maintenance or enhancement of the <i>species</i>* or community type(s).</p>

Conversion	<p>For the purposes of Criterion 6.9 and Criterion 6.10, the concept of conversion is defined by the Indicators of Criterion 6.9.</p> <p>NOTE: FSC prohibits conversion of <i>forests*</i> except in very limited circumstances. The specific aspects of what is prohibited and what is allowed (and therefore what is “conversion”) are provided in the details of the Criterion 6.9 <i>Indicators*</i>.</p>
Contractor employee	Individuals directly employed by an <i>independent contractor*</i> .
Core area	The portion of each <i>Intact Forest Landscape*</i> designated to contain the most important cultural and ecological values. <i>Core areas*</i> are managed to exclude industrial activity. <i>Core areas*</i> meet or exceed the definition of <i>Intact Forest Landscape*</i> . [Source: FSC-STD-60-004 V2-0]
Criterion (pl. Criteria)	A means of judging whether or not a <i>Principle*</i> (of <i>forest*</i> stewardship) has been fulfilled. [Source: FSC-STD-01-001 V5-2]
Critical	The concept of criticality or fundamentality in Principal 9 and <i>HCVs*</i> relates to irreplaceability and to cases where loss or major damage to this <i>HCV*</i> would cause serious prejudice or suffering to <i>affected stakeholders*</i> . An <i>ecosystem*</i> service is considered to be critical (<i>HCV 4*</i>) where a disruption of that service is likely to cause, or poses a threat of, severe negative impacts on the welfare, health or survival of <i>local communities*</i> , on the environment, on <i>HCVs*</i> , or on the functioning of significant <i>infrastructure*</i> (roads, dams, buildings etc.). The notion of criticality here refers to the importance and risk for natural resources and environmental and socio-economic values. [Source: FSC-STD-01-001 V5-2]
Culmination of mean annual increment	The peak average yearly growth in volume of trees or a <i>forest*</i> stand, calculated by dividing the total volume by the age of the stand.
Cultural	Relating to customary beliefs, social forms, and material traits of a racial, religious, or social group, which are passed down from generation to generation. [Source: Adapted from Merriam-Webster]
Culturally appropriate	Means/approaches for outreach to target groups that are in harmony with the customs, values, sensitivities, and ways of life of the target audience. [Source: FSC-STD-60-004 V2-0]
Cumulative effects/impacts	Individual consequences of an action or repeated actions, which may or may not be observable, that reinforce one another as they occur over time until they cross a threshold and manifest as a stronger outcome than any of the individual consequences would be by themselves.
Customary law	Interrelated sets of <i>customary rights*</i> .
Customary rights	Rights which result from a long series of habitual or customary actions,

	<p>constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit. [Source: FSC-STD-01-001 V5-2]</p> <p>NOTE: Due to the well-established legal structure in the United States for property rights, the rights of individuals and communities are established within the legal system, including any <i>customary rights*</i>, with the potential exception of <i>customary rights*</i> held by <i>Native American*</i> groups.</p>
Desired future conditions	<p>A description of the <i>forest*</i> and/or resource conditions that describe the <i>long-term*</i> vision of the <i>Management Unit*</i>. <i>Desired future condition*</i> typically includes <i>forest*</i> attributes such as <i>forest*</i> structure, <i>age class*</i> distribution, <i>species composition*</i>, standing timber quality, <i>stand*</i> arrangement, products, habitats* and values, and other resources. For the purposes of this Standard, managing for <i>desired future conditions*</i> implies that all other requirements in this Standard have been fully met.</p>
Discrimination	<p>Includes- a) any distinction, exclusion or preference made on the basis of race, color, sex, religion, political opinion, national extraction, social origin, sexual orientation, gender identity, familial status, which has the effect of nullifying or impairing equity of opportunity or treatment in employment or occupation; b) such other distinction, exclusion or preference which has the effect of nullifying or impairing equity of opportunity or treatment in employment or occupation as may be determined by the Member concerned after consultation with representative employers' and <i>workers' organizations*</i> where such exist, and with other appropriate bodies. [Source: Adapted from ILO Convention 111, Article1). "Sexual orientation" and "gender identity" were added to the definition provided in Convention 111, as they have been identified as an additional type of discrimination which may occur]</p>
Dispute	<p>A <i>dispute*</i> exists when the parties have exhausted consultative avenues to resolve a <i>complaint*</i> or other differences and the following occurs: a person or persons whose <i>rights*</i> or interests are directly affected by <i>The Organization's*</i> activities gives written notice to <i>The Organization*</i>, indicating that they wish to pursue a <i>dispute*</i> resolution process and specifying which <i>rights*</i> or interests are affected, by which <i>management activities*</i>, in which location, and what modifications are considered appropriate to avoid or mitigate impacts on the <i>rights*</i> or interests; OR, <i>The Organization*</i> gives written notice to the disputant, in order to trigger the <i>dispute*</i> resolution process and bring closure to the disagreement.</p>
Dispute of substantial duration	<p><i>Dispute*</i> that continues for more than twice the duration of the predefined timelines for resolving <i>complaints</i> or appeals in the FSC System (i.e., continues for more than 6 months after receiving the <i>complaint*</i>, based on the 3 month timeline in FSC-STD-20-001). [Source: Adapted from FSC-</p>

	STD-60-004 V2-0]
Dispute of substantial magnitude	<p><i>Dispute*</i> that involves one or more of the following:</p> <ul style="list-style-type: none"> • Where the negative impact of <i>management activities*</i> on <i>local communities*</i> <i>legal*</i> rights or on <i>Native American*</i> groups' <i>legal*</i> rights or <i>customary rights*</i> is of such a scale that it cannot be reversed or mitigated • Where the negative impact of <i>management activities*</i> to the environment or social welfare is of such a scale and context that it cannot be reversed or mitigated • Physical violence • Significant destruction of property • Law enforcement or armed security contractors are engaged in the dispute; • Acts of intimidation against <i>workers*</i> and <i>affected stakeholders*</i> • A <i>dispute*</i> can become of substantial magnitude if it is of <i>substantial duration*</i>, involves a significant number of interests and/or has a significant negative impact to the <i>forest*</i> resource/value • A <i>complaint*</i> can immediately become a <i>dispute of substantial magnitude*</i> if it represents a credible, imminent, and irreparable threat to or from any of the above <p><i>Disputes of substantial magnitude*</i> are not common and represent the exception. [Source: Adapted from FSC-STD-60-004 V2-0]</p>
Ecological community	An area defined by its dominant vegetation using the International Classification of Ecological Communities; an Association or Alliance as used by NatureServe, or a Natural Community as used by some state "Natural Heritage Programs" (actual organization or agency name may vary by state).
Economic viability	The capability of developing and surviving as a relatively independent social, economic or political unit. Economic viability may require but is not synonymous with profitability [Source: Based on the definition provided on the website of the European Environment Agency].
Economically infeasible	<p>Economically infeasible means that a reasonably prudent person with forestry or <i>restoration*</i> expertise would view the project as of such sufficient magnitude of costs or lost profits to render it impractical to proceed with the project.</p> <p>NOTE: For instance, the fact that adding downed wood to one creek is expensive does not make it <i>economically infeasible*</i>, while rebuilding a destroyed wetland is likely <i>economically infeasible*</i> due to the cost of permitting, digging new channels, and monitoring the outcome.</p>

Ecosystem (also Ecological system)	<p>A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. [Source: Convention on Biological Diversity 1992, Article 2]</p> <p>NOTE: A given terrestrial <i>ecological system</i>* will typically manifest itself in a <i>landscape</i>* at intermediate geographic scales of tens to thousands of acres and persist for 50 or more years. Therefore, these units are intended to encompass common <i>successional</i>* pathways for a given <i>landscape</i>* setting.</p>
Ecosystem services	<p>The benefits people obtain from <i>ecosystems</i>*. These include:</p> <ul style="list-style-type: none"> • provisioning services such as food, <i>forest</i>* products and water; • regulating services such as regulation of floods, drought, land degradation, air quality, climate and disease; • supporting services such as <i>soil</i>* formation and nutrient cycling; and • cultural services and cultural values such as recreational, spiritual, religious and other non-material benefits. <p>[Source: Based on R. Hassan, R. Scholes and N. Ash. 2005. <i>Ecosystems and Human Well-being: Synthesis</i>. The Millennium Ecosystem Assessment Series. Island Press, Washington DC]</p>
Employee	Individuals directly employed by <i>The Organization</i> *.
Employment and occupation	Includes access to vocational training, access to employment and to particular occupations, and terms and conditions of employment. [Source: ILO Convention 111, Article 1.3]
Endangered species	A <i>species</i> * officially designated by the US Fish and Wildlife Service, the National Marine Fisheries Service, or a state agency as having its continued existence threatened over all or a significant portion of its range.
Endemic species	A <i>species</i> * that is unique to a particular <i>water body</i> *, place, or region.
Engaging/ engagement	The process by which <i>The Organization</i> * communicates, consults and/or provides for the participation of interested and/or <i>affected stakeholders</i> * ensuring that their concerns, desires, expectations, needs, <i>rights</i> * and opportunities are considered in the establishment, implementation and updating of the <i>management plan</i> * and implementation of associated activities. [Source: Adapted from FSC-STD-01-001 V5-2]
Erosion	The displacement of <i>soil</i> * from one place to another by any means, including water, wind, gravity, logging, and road building.
Even-aged silviculture	<i>Silvicultural</i> * systems in which <i>stands</i> * of trees of roughly the same age and size are grown and harvested simultaneously. Even-aged systems may involve intermediate entries that remove some trees before the final,

	<p>or “regeneration”, harvest, when a new even-aged class of trees is established. A regeneration harvest is designed to remove all or most of the trees within a defined <i>age/size class*</i>, or to convert a <i>stand*</i> containing trees having a variety of ages, sizes, or <i>species*</i> to a more uniform <i>stand*</i>. The timing of the regeneration harvest is termed the “rotation age” of the timber stand. Even-aged <i>silvicultural*</i> systems include clearcut, seed-tree, shelterwood, two-age <i>silviculture*</i>, and variable retention systems. Even-aged <i>stands*</i> may contain more than one <i>age/size class*</i> of trees on the site at any one time for <i>silvicultural*</i> reasons or environmental enhancement. For instance, a variable retention system typically retains 10%–25% of the vegetative cover present before harvest on-site and intermixed with the new even-aged stand, to maintain structures and functions important for wildlife. Classic shelterwood and seed-tree cuts retain mature trees from the harvested <i>stand*</i> during the establishment of the next crop of trees, but these are taken out during a “removal” harvest to leave one <i>age/size class*</i> for future management.</p>
Expert	<p>An expert:</p> <ul style="list-style-type: none"> • has knowledge or skill that is specialized and profound as the result of substantial practical or academic experience; and/or • is a recognized authority on a topic by virtue of published material on this topic, their stature within the professional community, and the broadly recognized related experience; and/or • possesses a wealth of experience on a topic, possibly through practical means including the accumulation of <i>traditional knowledge*</i>. <p>[Source: Based on FSC-GUI-60-009 V1-0]</p> <p>NOTE: Some requirements for consultation with experts may be fulfilled through use of experts employed by the Organization. Some requirements specifically indicate the need for the expert to be independent of the Organization.</p>
Externalities	<p>The positive and negative impacts of activities on stakeholders that are not directly involved in those activities, or on a natural resource or the environment, which do not usually enter standard cost accounting systems, such that the market prices of the products of those activities do not reflect the full costs or benefits. [Source: FSC-STD-01-001 V5-2]</p>
Fair compensation	<p>Remuneration that is proportionate to the magnitude and type of services rendered by another party or of the harm that is attributable to the first party. [Source: FSC-STD-01-001 V5-2]</p>
Family forest	<p>A <i>Management Unit*</i> up to 2,470 acres in size, or a <i>Management Unit*</i> with low <i>intensity*</i> harvesting as defined by:</p> <p>a) the rate of harvesting is less than 20% of the mean annual increment</p>

	<p>(MAI)² within the total production forest area of the unit, AND</p> <p>b) EITHER the annual harvest from the total production forest area is less than 5000 cubic meters, OR the average annual harvest from the total production forest is less than 5000 m³ / year during the period of validity of the certificate as verified by harvest reports and surveillance audits.</p> <p>[Source: FSC-STD-01-003 and FSC-STD-01-003a, criteria for Small and Low Intensity Managed Forest in the United States]</p>
Fertilizer	<p>Mineral or organic substances, most commonly N, P₂O₅ and K₂O, which are applied to soil for the purpose of enhancing plant growth. [Source: FSC-STD-60-004 V2-0]</p>
Fiber testing	<p>A suite of wood identification technologies used to identify the family, genus, species and origin of solid wood and fiber based products. [Source: FSC-STD-60-004 V2-0]</p>
Forced or compulsory labor	<p>Work or service exacted from any person under the menace of any penalty and for which the said person has not offered himself/herself voluntarily. [Source: ILO Convention 29, Article 2.1] Examples of <i>forced or compulsory labor*</i>, include:</p> <ul style="list-style-type: none"> ● physical and sexual violence ● bonded labor ● withholding of wages, including payment of employment fees and/ or payment of deposit to commence employment ● restriction of mobility/movement ● retention of passport and identity documents <p>threats of denunciation to the authorities</p>
Forest	<p>Generally, an <i>ecosystem*</i> characterized by tree cover; more particularly, a <i>plant community*</i> predominantly of trees and other woody vegetation that is growing closely together.</p>
Forest-dependent	<p><i>Local communities*</i> for whom <i>forests*</i> provide sites and/or resources that are fundamental for satisfying their basic necessities (i.e., livelihoods, health, nutrition, water); that is, the sites and/or resources provided are irreplaceable (i.e., alternatives are not readily accessible or affordable), and loss of or damage to them would cause serious suffering of, or prejudice to, the community as a whole.</p>
Fragmentation	<p>The process of dividing <i>habitats*</i> into smaller patches, which results in the loss of original <i>habitat*</i>, loss in <i>connectivity*</i>, reduction in patch size, and increasing isolation of patches. <i>Fragmentation*</i> is considered to be one of the single most important factors leading to loss of <i>native species*</i>, especially in <i>forested* landscapes*</i>, and one of the primary causes of the present extinction crisis. In reference to <i>Intact Forest Landscapes*</i>, the <i>fragmentation*</i> of concern is understood to be that caused by human</p>

	<p>industrial activities. [Source: Adapted from: Gerald E. Heilman, Jr. James R. Strittholt Nicholas C. Slosser Dominick A. Dellasala, <i>BioScience</i> (2002) 52 (5): 411-422]</p>
Free, Prior, and Informed Consent (FPIC)	<p>A legal condition whereby a person or community can be said to have given consent to an action prior to its commencement, based upon a clear appreciation and understanding of the facts, implications and future consequences of that action, and the possession of all relevant facts at the time when consent is given. <i>Free, prior, and informed consent*</i> includes the right to grant, modify, withhold or withdraw approval. [Source: Based on the Preliminary working paper on the principle of Free, Prior and Informed Consent of Indigenous Peoples (...) (E/CN.4/Sub.2/AC.4/2004/4 8 July 2004) of the 22nd Session of the United Nations Commission on Human Rights, Sub-commission on the Promotion and Protection of Human Rights, Working Group on Indigenous Populations, 19–23 July 2004]</p>
Gap Analysis Project (GAP)/ GAP status	<p>The US Geological Survey’s Gap Analysis Project (GAP) develops data and tools to support the science of determining how well are we protecting common plants and animals. One of these tools is the Protected Areas Database of the United States (PAD-US), which identifies the status of <i>protected*</i> areas represented in the database through GAP Status Codes (i.e., GAP status), which are a measure of management intent to conserve <i>biodiversity*</i>, and are defined as:</p> <ul style="list-style-type: none"> • GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity, and legacy) are permitted to proceed without interference or are mimicked through management. • GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive uses or management practices that degrade the quality of existing natural communities, including suppression of natural disturbance. • GAP Status 3: An area having permanent protection from conversion of natural land cover for most of the area, but subject to extractive uses of either a broad, low-intensity type (e.g., logging, Off Highway Vehicle recreation) or localized intense type (e.g., mining). It also confers protection to federally listed endangered and threatened species throughout the area. • GAP Status 4: There are no known public or private institutional mandates or legally recognized easements or deed restrictions held by the managing entity to prevent conversion of natural habitat types to anthropogenic habitat types. The area generally allows

	conversion to unnatural land cover throughout or management intent is unknown.
Gender equity	<i>Gender equity</i> means that people of all gender identities have equal conditions for realizing their full human rights and for contributing to, and benefiting from, economic, social, cultural and political development. [Source: Adapted from FAO, IFAD and ILO workshop on 'Gaps, trends and current research in gender dimensions of agricultural and rural employment: differentiated pathways out of poverty', Rome, 31 March to 2 April 2009.]
Genetically modified organisms (GMO)	Biological organisms that have had their genetic material artificially altered in a way that does not occur naturally by mating or natural recombination or both. [Source: Based on FSC-POL-30-602 FSC Interpretation on GMO (Genetically Modified Organisms)] Examples of techniques covered by this definition include: <ul style="list-style-type: none"> • recombinant DNA techniques using viral or bacterial vectors • the direct introduction of DNA into an organism (e.g., by microinjection) • cell fusion or hybridization Clones, hybrids formed by natural pollination processes, or the products of tree selection, grafting, vegetative propagation, or tissue culture are not <i>GMOs*</i> , unless produced by <i>GMO*</i> techniques.
Genotype	The genetic constitution of an organism. [Source: FSC-STD-01-001 V5- 2]
Good faith	The principle of <i>good faith*</i> implies that the parties make every effort to reach an agreement, conduct genuine and constructive negotiations, avoid delays in negotiations, respect concluded agreements, and give sufficient time to discuss and settle <i>disputes*</i> . [Source: Adapted from FSC Policy Motion 40/2017]
Habitat	(1) Those parts of the environment (aquatic, terrestrial, and atmospheric) often typified by a dominant plant form or physical characteristic, on which an organism depends, directly or indirectly, in order to carry out its life processes. (2) The specific environmental conditions in which organisms thrive in the wild.
Harvest opening	A spatial unit of <i>forest*</i> management that results in creating a homogenous open condition without <i>retention*</i> ; and of which, the ecological site condition created is independent of other retained vegetation and/or adjacent vegetation conditions, excepting edge effects. Generally, this is achieved when areas are of greater distance from all adjacent or retained vegetation than its respective height. NOTE: <i>Harvest openings*</i> occur within <i>harvest units*</i>

Harvest unit	<p>A spatial unit of <i>forest</i>* management within the <i>management unit</i>* that defines a single <i>silvicultural</i>* prescription.</p> <p>NOTE: The landing is not a part of the <i>harvest unit</i>*.</p>
Hazardous work (in the context of child labor)	<p>Any work which is likely to jeopardize children’s physical, mental or moral health, should not be undertaken by anyone under the age of 18 years. Hazardous <i>child labor</i>* is work in dangerous, or unhealthy conditions that could result in a child being killed or injured/maimed (often permanently) and/or made ill (often permanently) as a consequence of poor safety and health standards and working arrangements. In determining the type of hazard <i>child labor</i>* referred to under (Article 3(d) of the Convention No 182, and in identifying where they exist, consideration should be given, inter alia, to:</p> <ul style="list-style-type: none"> • Work which exposes children to physical, psychological or sexual abuse; • Work underground, under water at dangerous heights or in confined spaces; • Work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads; • Work in unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging to their health; • Work under particularly difficult conditions such as work for long hours or during the night or work where the child is unreasonably confined to the premises of the employer. <p>[Source: ILO, 2011: IPEC Mainstreaming Child labour concerns in education sector plans and Programmes, Geneva, 2011& ILO Handbook on Hazardous child labour, 2011]</p>
High Conservation Value (HCV)	<p>Any of the following values:</p> <ul style="list-style-type: none"> • HCV 1: Species diversity. Concentrations of <i>biological diversity</i>* including <i>endemic species</i>*, and <i>rare, threatened or endangered species</i>*, that are <i>significant</i>* at global, regional or national levels. • HCV 2: <i>Landscape</i>*-level <i>ecosystems</i>* and mosaics. <i>Intact Forest Landscapes</i>*, large <i>landscape</i>*-level <i>ecosystems</i>* and <i>ecosystem</i>* mosaics that are <i>significant</i>* at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring <i>species</i>* in natural patterns of distribution and abundance. • HCV 3: <i>Ecosystems</i>* and <i>habitats</i>*. Rare, threatened, or endangered <i>ecosystems</i>*, <i>habitats</i>* or <i>refugia</i>*. • HCV 4: <i>Critical</i>* <i>ecosystem services</i>*. Basic <i>ecosystem services</i>* in <i>critical</i>* situations, including protection of water catchments and

	<p>control of <i>erosion*</i> of vulnerable <i>soils*</i> and slopes.</p> <ul style="list-style-type: none"> • HCV 5: Community needs. Sites and resources fundamental for satisfying the basic necessities of <i>local communities*</i> or <i>Indigenous Peoples*</i> (for example for livelihoods, health, nutrition, water), identified through <i>engagement*</i> with these communities or <i>Indigenous Peoples*</i>. • HCV 6: Cultural values. Sites, resources, <i>habitats*</i> and <i>landscapes*</i> of global or national cultural, archaeological or historical <i>significance*</i>, and/or of <i>critical*</i> cultural, ecological, economic or religious/sacred importance for the traditional cultures of <i>local communities*</i> or <i>Indigenous Peoples*</i>, identified through <i>engagement*</i> with these <i>local communities*</i> or <i>Indigenous Peoples*</i>. <p>[Source: Based on FSC-STD-01-001 V5-2]</p>
High Conservation Value Areas (HCVA)	<p>Zones and physical spaces which possess and/or are needed for the existence and maintenance of identified <i>High Conservation Values*</i>.</p> <p>[Source: FSC-STD-60-004 V2-0]</p>
Historic conditions	<p>Ecological conditions and processes existing prior to substantial modern human disturbance of the site, based on <i>Best Available Information*</i>.</p>
High-grading (high grade logging)	<p>A tree-removal practice in which the best quality, most valuable timber trees are removed, often without regenerating new tree seedlings or removing the remaining poor quality and suppressed understory trees and, in doing so, degrading the future ecological health and commercial value of the <i>forest*</i>. High grading stands is not compatible with sustainable resource management. [Source: Based on Glossary of Forest Management Terms. North Carolina Division of Forest Resources. March 2009]</p>
ILO Core (Fundamental) Conventions	<p>These are labor standards that cover fundamental principles and rights at work: freedom of association and the effective recognition of the right to <i>collective bargaining*</i>; the elimination of all forms of forced or compulsory labor; the effective abolition of <i>child labor*</i>; and the elimination of discrimination in respect of employment and occupation.</p> <p>The eight Fundamental Conventions are:</p> <ul style="list-style-type: none"> • Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); • Right to Organise and Collective Bargaining Convention, 1949 (No. 98); • Forced Labour Convention, 1930 (No. 29); • Abolition of Forced Labour Convention, 1957 (No. 105); • Minimum Age Convention, 1973 (No. 138);

	<ul style="list-style-type: none"> • Worst Forms of Child Labour Convention, 1999 (No. 182); • Equal Remuneration Convention, 1951 (No. 100); • Discrimination (Employment and Occupation) Convention, 1958 (No. 111) <p>[Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]</p>
ILO Declaration on Fundamental Principles and Rights at Work and Its Follow-up, adopted by the International Labor conference at its Eighty-sixth Session, Geneva, 18th June 1998 (Annex revised 15 June 2010)	<p>A resolute reaffirmation of ILO principles (art 2) which declares that all Members, even if they have not ratified the Conventions in question, have an obligation, arising from the very fact of membership in the organization, to respect, to promote and to realize, in <i>good faith</i>* and in accordance with the Constitution, the principles concerning the fundamental rights which are the subject of those Conventions, namely:</p> <ul style="list-style-type: none"> • Freedom of association and the effective recognition of the right to <i>collective bargaining</i>*; • The elimination of all forms of <i>forced or compulsory labor</i>*; • The effective abolition of <i>child labor</i>*; and • The elimination of discrimination in respect of employment and occupation. <p>[Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]</p>
Independent contractor	Individuals or employers who enter into a contract with <i>The Organization</i> *.
Indicator	A quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a <i>Management Unit</i> * complies with the requirements of an <i>FSC Criterion</i> *. <i>Indicators</i> * and the associated thresholds thereby define the requirements for responsible <i>forest</i> * management at the level of the <i>Management Unit</i> * and are the primary basis of <i>forest</i> * evaluation. [Source: FSC- STD-01-002, October 2017]
Indigenous Peoples	<p>People and groups of people that can be identified or characterized as follows:</p> <ul style="list-style-type: none"> • The key characteristic or criterion is self-identification as <i>Indigenous Peoples</i>* at the individual level and acceptance by the community as their member; • Historical continuity with pre-colonial and/or pre-settler societies; • Strong link to territories and surrounding natural resources; • Distinct social, economic or political systems; • Distinct language, culture and beliefs; • Form non-dominant groups of society; • Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities.

	[Source: Adapted from United Nations Permanent Forum on Indigenous, Factsheet 'Who are Indigenous Peoples' October 2007; United Nations Development Group, 'Guidelines on Indigenous Peoples' Issues' United Nations 2009, United Nations Declaration on the Rights of Indigenous Peoples, 13 September 2007]
Industrial activity	Industrial <i>forest*</i> and resource <i>management activities*</i> such as road building, mining, dams, urban development and timber harvesting. [Source: FSC-STD-60-004 V2-0]
Infrastructure	In the context of <i>forest*</i> management, roads, bridges, culverts, log landings, quarries, impoundments, buildings and other structures required in the course of implementing the <i>management plan*</i> . [Source: FSC-STD-60-004 V2-0]
Intact Forest Landscape	A territory within today's global extent of <i>forest*</i> cover which contains <i>forest*</i> and non- <i>forest* ecosystems*</i> minimally influenced by human economic activity, with an area of at least 500 km ² (50,000 ha) and a minimal width of 10 km (measured as the diameter of a circle that is entirely inscribed within the boundaries of the territory). [Source: Intact Forests / Global Forest Watch. Glossary definition as provided on Intact Forest website. 2006-2014]
Integrated pest management (IPM)	Careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations, encourage beneficial populations and keep <i>pesticides*</i> and other interventions to levels that are economically justified and reduce or minimize risks to human and animal health and/or the environment. <i>IPM*</i> emphasizes the growth of a healthy <i>forest*</i> with the least possible disruption to <i>ecosystems*</i> and encourages natural pest control mechanisms. [Source: Based on FAO International Code of Conduct on Pesticide Management]
Intellectual property	Practices as well as knowledge, innovations, and other creations of the mind. [Source: Based on the Convention on Biological Diversity, Article 8(j); and World Intellectual Property Organization. What is Intellectual Property? WIPO Publication No. 450(E)]
Intensity	A measure of the force, severity, or strength of a <i>management activity*</i> or other occurrence affecting the nature of the activity's impacts. [Source: FSC-STD-01- 001 V5-2]
Interested stakeholder	Any person, group of persons, or entity that has shown an interest, or is known to have an interest, in the activities of a <i>Management Unit*</i> . The following are examples of <i>interested stakeholders*</i> . <ul style="list-style-type: none"> • <i>Conservation*</i> organizations, for example environmental NGOs; • Labor (rights) organizations, for example labor unions;

	<ul style="list-style-type: none"> • Human rights organizations, for example social NGOs; • Local development projects; • Local governments; • National government departments functioning in the region; • FSC National Offices; • Experts on particular issues, for example <i>High Conservation Values*</i>. <p>[Source: FSC-STD-01-001 V5-2]</p>
Intermittent stream	A mapped or unmapped stream with a defined channel, banks, and bed that typically flows for less than 12 months of the year.
Internationally accepted scientific protocol	A predefined science-based procedure which is either published by an international scientific network or union or referenced frequently in the international scientific literature. [Source: FSC-STD-01-001 V5-2]
Invasive species	A <i>species*</i> capable of rapid reproduction and spatial expansion, which may displace more specialized <i>native species*</i> and/or is difficult to eradicate. <i>Invasive species*</i> can alter ecological relationships among <i>native species*</i> and can affect <i>ecosystem*</i> function and human health. <i>Invasive species*</i> are of particular ecological concern if they are not native to the area in question.
Lands and territories	<p>For the purposes of the <i>Principles*</i> and <i>Criteria*</i> these are lands or territories that <i>Indigenous Peoples*</i> or <i>local communities*</i> have traditionally owned, or customarily used or occupied, and where access to natural resources is currently vital to the sustainability of their cultures and livelihoods. [Source: Based on World Bank safeguard OP 4.10 Indigenous Peoples, section 16 (a). July 2005]</p> <p>In the context of <i>Native Americans*</i>, this term includes ancestral territory and <i>tribal*</i> territory, and is, therefore, not limited to the lands reserved for the settlement of <i>Native Americans*</i> and/or other currently recognized <i>tribal*</i> lands.</p>
Landscape	<p>For the purposes of this Standard, the term “landscape” refers to a delineation of land area that captures similar environmental and ecological conditions including climate, geology, soils, water, and biology. USFS-defined Ecological Sections (Cleland 2005, update of Bailey/USFS) or smaller units are recommended for use to define <i>landscape*</i> for purposes of <i>RSA*</i> establishment and assessment . For many other purposes, “landscapes” will often occur at smaller scales than ecological sections. In some contexts, “landscape” as used in this Standard simply refers to consideration of the area surrounding a particular site.</p> <p>In developing the description of “landscape” <i>The Organization*</i> considers</p>

	<p>the <i>Management Unit's</i>* ability to influence and impact the surrounding area, as well as the potential for other owners to influence and impact the area that the <i>Management Unit</i>* falls within. Some larger <i>Management Units</i>* may represent the full <i>landscape</i>* that needs to be considered, while other typically smaller <i>Management Units</i>* may occur within a broader <i>landscape</i>* that should be considered.</p>
Landscape values	<p><i>Landscape values</i>* can be visualized as layers of human perceptions overlaid on the physical <i>landscape</i>*. Some <i>landscape values</i>*, like economic, recreation, subsistence value, or visual quality are closely related to physical <i>landscape</i>* attributes. Other <i>landscape values</i>* such as intrinsic or spiritual value are more symbolic in character and are influenced more by individual perception or social construction than physical <i>landscape</i>* attributes. [Source: Based on website of the Landscape Value Institute]</p> <p>For the purposes of Criterion 6.8 and Criterion 10.10, these values are focused on how the mosaic of <i>ecosystems</i>*, age structure, <i>species</i>* composition, <i>species</i>* distribution, <i>fragmentation</i>*, and other ecological conditions occur across the <i>landscape</i>*.</p>
Large	When used in reference to an ownership or <i>Management Unit</i> *, it is an area greater than 50,000 acres in size.
Late successional	Forest in old-growth or mature seral stages.
Legacy trees	Trees, usually mature or remnant of growth, that provides a biological legacy. For the purposes of this Standard, it is an individual old tree that functions as a refuge or provides other important structural habitat values.
Legal	<p>In accordance with primary legislation (<i>national laws</i>* or <i>local laws</i>*) or secondary legislation (subsidiary regulations, decrees, orders, etc.). "Legal" also includes rule-based decisions made by <i>legally competent</i>* agencies where such decisions flow directly and logically from the laws and regulations. Decisions made by <i>legally competent</i>* agencies may not be <i>legal</i>* if they do not flow directly and logically from the laws and regulations and if they are not rule-based but use administrative discretion. [Source: FSC-STD-01-001 V5-2]</p> <p>NOTE: In the United States, treaties and reserved treaty rights are legally binding.</p>
Legal registration	National or <i>local</i> * <i>legal</i> * license or set of permissions to operate as an enterprise, with <i>rights</i> * to buy and sell products and/or services commercially. The license or permissions can apply to an individual, a privately-owned enterprise, or a publicly owned corporate entity. The

	<p><i>rights*</i> to buy and sell products and/or services do not carry the obligation to do so, so legal* registration applies also to <i>Organizations*</i> operating a <i>Management Unit*</i> without sales of products or services; for example, for unpriced recreation or for <i>conservation*</i> of <i>biodiversity*</i> or <i>habitat*</i>. [Source: FSC-STD-01-001 V5-2]</p>
Legal status	<p>The way in which the <i>Management Unit*</i> is classified according to law. In terms of tenure, it means the category of tenure, such as communal land or leasehold or freehold or State land or government land, etc. If the <i>Management Unit*</i> is being converted from one category to another (for example, from State land to communal indigenous land) the status includes the current position in the transition process. In terms of administration, <i>legal status*</i> could mean that the land is owned by the nation as a whole, is administered on behalf of the nation by a government department and is leased by a government Ministry to a private sector operator through a concession. [Source: FSC-STD-01-001 V5-2]</p>
Legally competent	<p>Mandated in law to perform a certain function. [Source: FSC-STD-01-001 V5-2]</p>
Light work	<p><i>National laws*</i> or regulations may permit the employment or work of persons 13 to 15 years of age on <i>light work*</i> which is a) not likely to be harmful to their health or development; and b) not such as to prejudice their attendance at school, their participation in vocational orientation, or training programs approved by the competent authority or their capacity to benefit from the instruction received. [Source: ILO Convention 138, Article 7]</p>
Living wage	<p>The remuneration received for a standard work week by a <i>worker*</i> in a particular place sufficient to afford a decent standard of living for the <i>worker*</i> and the <i>worker's*</i> family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events. [Source: Adapted from "A Shared Approach to a Living Wage," ISEAL Living Wage Group, November 2013]</p>
Local	<p>In or within reasonable proximity to the <i>Management Unit*</i> to have a significant impact on the economy or the environmental values of the <i>Management Unit*</i>, or to be significantly affected by the <i>management activities*</i> or the biophysical aspects of the <i>Management Unit*</i>. On <i>public lands*</i>, this also includes all citizens of the relevant entity (county, city, state, or nation).</p>
Local communities	<p>Communities of any size that are in or adjacent to the <i>Management Unit*</i>, and also those that are close enough to have a significant impact on the economy or the environmental values of the <i>Management Unit*</i> or to have their economies, <i>rights*</i> or environments significantly affected by the <i>management activities*</i> or the biophysical aspects of the <i>Management</i></p>

	<i>Unit*</i> . On <i>public lands*</i> , this also includes all citizens of the relevant entity (county, city, state, or nation). [Source: adapted from FSC-STD-01-001 V5-2]
Local laws	The whole suite of primary and secondary laws (acts, ordinances, statutes, decrees) which is limited in application to a particular geographic district within a national territory, as well as secondary regulations, and tertiary administrative procedures (rules/requirements) that derive their authority directly and explicitly from these primary and secondary laws. <i>Tribal*</i> laws are included within this definition of local laws. Laws derive authority ultimately from the Westphalian concept of sovereignty of the Nation State. [Source: FSC-STD-01-001 V5-2]
Long-term	The time-scale of the <i>forest*</i> owner or manager as manifested by the objectives of the <i>management plan*</i> , the rate of harvesting, and the commitment to maintain permanent <i>forest*</i> cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given <i>ecosystem*</i> to recover its natural structure and composition following harvesting or disturbance or to produce mature or primary conditions. This may extend beyond the duration of a certificate. [Source: Adapted from FSC-STD-01-002 V1-0 FSC Glossary of Terms (2009)]
Management activity	Any or all operations, processes, or procedures associated with achieving <i>management objectives*</i> within the <i>management unit*</i> , including but not limited to: planning, consultation, harvesting, access construction and maintenance, <i>silvicultural*</i> activities (planting, site preparation, tending), monitoring, assessment, and reporting. [Source: Adapted from FSC Canada National Boreal Standard 2004]
Management objective	Specific management goals, practices, outcomes, and approaches established to achieve the requirements of this Standard. [Source: FSC-STD-60-004 V2-0]
Management plan	The collection of documents, reports, records and maps that describe, justify and regulate the activities carried out by any manager, staff, or <i>Organization*</i> within or in relation to the <i>Management Unit*</i> , including statements of objectives and policies. [Source: FSC-STD-01-001 V5-2]
Management strategy	A plan of action for how a <i>management objective*</i> or other desired outcome will be achieved.
Management Unit	A spatial area or areas submitted for FSC certification with clearly defined boundaries managed to a set of explicit <i>long term* management objectives*</i> which are expressed in a <i>management plan*</i> . This area or areas include(s): <ul style="list-style-type: none"> • all facilities and area(s) within or adjacent to this spatial area or

	<p>areas under <i>legal</i>* title or management control of, or operated by or on behalf of <i>The Organization</i>*, for the purpose of contributing to the <i>management objectives</i>*; and</p> <ul style="list-style-type: none"> all facilities and area(s) outside, and not adjacent to this spatial area or areas and operated by or on behalf of <i>The Organization</i>*, solely for the purpose of contributing to the <i>management objectives</i>*. <p>[Source: FSC-STD-01-001 V5-2]</p>
Minimum age (of employment)	<p>Is not less than the age of finishing compulsory education, and which in any case, should not be less than 15 years. However, a country, whose economy and educational facilities are insufficiently developed, may initially specify a minimum age of 14 years. <i>National laws</i>* may also permit the employment of 13-15-year-olds in <i>light work</i>* which is neither prejudicial to school attendance, nor harmful to a child's health or development. The ages 12-13 can apply for <i>light work</i>* in countries that specify a minimum age of 14. [Source: ILO Convention 138, Article 2]</p>
Medium	<p>When used in reference to an ownership or <i>Management Unit</i>*, it is an area between 2,475 and 50,000 acres in size.</p>
Native American	<p>Of or relating to the <i>Indigenous Peoples</i>* of the conterminous United States (not including Alaska, Hawaii, or any US territories).</p>
National laws	<p>The whole suite of primary and secondary laws (acts, ordinances, statutes, decrees), which is applicable to a national territory, as well as secondary regulations, and tertiary administrative procedures (rules/requirements) that derive their authority directly and explicitly from these primary and secondary laws. [Source: FSC-STD-01-001 V5-2]</p>
Nationally-ratified	<p>Ratified by the Congress of the United States</p>
Native species	<p><i>Species</i>*, subspecies, or lower taxon, occurring within its natural range (past or present) and dispersal potential (that is, within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans). [Source: Convention on Biological Diversity (CBD). Invasive <i>Alien Species</i>* Programme. Glossary of Terms as provided on CBD website]</p>
Natural conditions	<p>For the purposes of the <i>Principles</i>* and <i>Criteria</i>* and any applications of restoration techniques, the term "more natural conditions" provides for managing sites to favor or <i>restore</i>* <i>native species</i>* and associations of <i>native species</i>* that are typical of the locality, and for managing these associations and other environmental values so that they form <i>ecosystems</i>* typical of the locality. [Source: Adapted from FSC-STD-01-001 V5-2]</p>

Natural disturbance regime	Disturbance processes such as wind, fire, insects, and pathogens that are characteristic of the <i>forest* ecosystem*</i> , site, and region. Disturbance regimes are typically characterized by the range of extent, intensity, and return interval of a similar event expected for a given site.
Natural forest	<i>Natural forests*</i> include <i>old growth*</i> and <i>primary forests*</i> as well as managed <i>forests*</i> where most of the principal characteristics and key elements of native <i>ecosystems*</i> , such as complexity, structure, wildlife, and <i>biological diversity*</i> , are present. See also <i>semi-natural forest*</i> .
Natural hazards	Disturbances that can present risks to social and environmental values* in the <i>Management Unit*</i> but that may also comprise important <i>ecosystem*</i> functions; examples include drought, flood, fire, landslide, storm, avalanche, etc. [Source: FSC-STD-60-004 V2-0]
Non-native species	A <i>species*</i> , subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such <i>species*</i> that might survive and subsequently reproduce. [Source: Convention on Biological Diversity (CBD), Invasive <i>Alien Species*</i> Programme definition for 'alien species.' Glossary of Terms as provided on CBD website]
Non-timber forest products (NTFP)	All forest products other than timber derived from the <i>Management Unit*</i> , including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products. [Source: adapted from FSC-STD-01-001 V5-2]
Objective	The basic purpose laid down by <i>The Organization*</i> for the <i>forest*</i> enterprise, including the decision of policy and the choice of means for attaining the purpose. [Source: Based on F.C. Osmaston. 1968. <i>The Management of Forests</i> . Hafner, New York; and D.R. Johnston, A.J. Grayson and R.T. Bradley. 1967. <i>Forest Planning</i> . Faber & Faber, London]
Obligatory code of practice	A manual or handbook or other source of technical instruction which <i>The Organization*</i> must implement by law. [Source: FSC-STD-01-001 V5-2]
Occupational disease	Any disease contracted as a result of an exposure to risk factors arising from work activity. [Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website]
Occupational injuries	Any personal injury, disease or death resulting from an occupational accident. [Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website]
Old growth	The oldest seral stage in which a <i>plant community*</i> is capable of existing on a site, given the frequency of natural disturbance events. The onset of <i>old growth*</i> varies by <i>forest*</i> community and region. Depending on the

	<p>frequency and intensity of disturbances, and site conditions, <i>old growth</i>* forests will have different structures, <i>species</i>* compositions, age distributions, and functional capacities than younger forests. <i>Old growth</i>* stands* and forests* include:</p> <p>Type 1 Old Growth: 3 acres or more that have never been harvested and that display <i>old growth</i>* characteristics.</p> <p>Type 2 Old Growth: 20 acres or more that have been harvested, but that have retained (through any harvesting activities) significant <i>old growth</i>* structure and functions.</p>
The Organization	The person or entity holding or applying for certification and therefore responsible for demonstrating compliance with the requirements upon which FSC certification is based. [Source: FSC-STD-01-001 V5-2]
Pathogen	Any agent that causes disease, especially microorganisms, such as bacteria or fungi.
Perennial stream	A mapped or unmapped stream with a defined channel, banks, and bed that flows year-round. Sub-surface reaches located downstream of the upper most point of perennial flow (i.e., perennial initiation point) shall be treated as perennial.
Pesticide	<p>Any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth. [Source: FAO International Code of Conduct on Pesticide Management]</p> <p>NOTE: This definition includes insecticides, rodenticides, acaricides, molluscicides, larvaecides, nematocides, fungicides, and herbicides.</p>
Planning unit	The specific geographic area for which a <i>sustained yield harvest level</i> * is being calculated. Planning units should generally be composed of land that contains similar or commonly associated <i>forest</i> * types. Depending upon the scale of ownership, planning units may range in size from a single <i>stand</i> * (for example, <i>small</i> *, private landowners) to entire watersheds. A planning unit may include the entire <i>Management Unit</i> *.
Plant community (plant community type)	See <i>ecological community</i> *.
Plantation	A <i>forest</i> * area established by planting or sowing with, using either <i>native species</i> * or <i>non-native species</i> *, often with one or few <i>species</i> *, regular spacing, and even ages, and which lacks most of the principal characteristics and key elements of native <i>forest</i> * <i>ecosystems</i> *. The use of establishment or subsequent management practices in planted <i>forest</i> * stands* that perpetuate the <i>stand</i> *-level absence of most principle characteristics and key elements of native <i>forest</i> * <i>ecosystems</i> * will result in

	<p>a stand being classified as a <i>plantation</i>*. The details addressing ecological conditions used in <i>stand</i>*-level classification are outlined in related guidance. Except for highly extenuating circumstances, the following are classified as <i>plantations</i>*:</p> <ul style="list-style-type: none"> • cultivation of exotic species <i>non-native species</i>* or recognized exotic non-native sub-<i>species</i>*, except when used in conformance with Indicator 10.2.2; • block plantings of cloned trees resulting in a major reduction of within-<i>stand</i>* genetic diversity compared to what would be found in a natural <i>stand</i>* of the same <i>species</i>*; and • cultivation of any tree <i>species</i>* in areas that were naturally non-forested* <i>ecosystems</i>*. <p>[Source: adapted from FSC-STD-01-001 V5-2]</p> <p>NOTE: Guidance for differentiating between <i>natural forest</i>* or <i>semi-natural forest</i>* and <i>plantation</i>* is provided in Annex I.</p>
Pre-harvest	The diversity, composition, and structure of the <i>forest</i> * or <i>plantation</i> * prior to felling timber and appurtenant activities such as road building. [Source: FSC-STD-60-004 V2-0]
Precautionary principle/ approach	When the available information indicates that <i>management activities</i> * pose a threat of severe or irreversible damage to the environment or a threat to human welfare, <i>The Organization</i> * takes explicit and effective measures to prevent the damage and avoid the <i>risks</i> * to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of environmental values are uncertain. [Source: Based on Principle 15 of Rio Declaration on Environment and Development, 1992, and Wingspread Statement on the Precautionary Principle of the Wingspread Conference, 23–25 January 1998]
Primary forest	<p><i>Forest</i>* <i>ecosystems</i>* that have retained the principal characteristics and key elements of native <i>ecosystems</i>*, such as complexity, structure, and diversity, and have remained relatively undisturbed by human activity (i.e., lack visible indications of human economic activity). Human impacts in such <i>forest</i>* areas have normally been limited to low levels of hunting, fishing, and very limited, non-commercial harvesting of <i>forest</i>* products.</p> <p>NOTE: In fire- or other disturbance-dominated <i>ecosystems</i>*, <i>primary forest</i>* may not always be dominated by mature trees, or any trees at all, but instead may present as a mosaic of older and younger <i>stands</i>*.</p>
Principle	An essential rule or element; in FSC's case, of <i>forest</i> * stewardship. [Source: FSC-STD-01-001 V5-2]
Protected areas	Portions of the <i>forest</i> * of special biological, cultural, or historical

	significance that are designated, mapped, and managed principally to protect their biological, cultural, or historic attributes. Only <i>management activities*</i> (including logging) implemented to achieve ecological improvements are allowed in <i>protected areas*</i> .
Protection	See <i>Conservation*</i> .
Public land	Land held in government ownership in trust for the citizens of a city, county or parish, state, or nation. For the purpose of requirements that are specific to “public lands”, <i>tribal*</i> lands are excluded from this definition, even though the US federal government has a trust responsibility to tribes for the management of <i>tribal*</i> lands. Public university lands are also excluded from this definition.
Publicly available	In a manner accessible to (including by request) or observable by people generally. [Source: Adapted from Collins English Dictionary, 2003 Edition]
Rare ecological community (including plant community)	Those <i>ecological communities*</i> that have been identified by state or federal agencies or natural heritage databases to be rare, consistent with the parameters for determining <i>are, threatened, and endangered species*</i> .
Rare species	See <i>rare, threatened, and endangered species*</i>
Rare, threatened, and endangered species (RTE species)	<i>Species*</i> (including plants, animals, and other organisms) that are federally-listed (i.e., by the US Fish and Wildlife Service or National Marine Fisheries Service) or state-listed (i.e., by state natural heritage or other state agencies) as threatened, endangered, or sensitive; and species that are listed by the Natural Heritage Database or NatureServe as critically imperiled, imperiled, or vulnerable. This includes all G1—G3 and S1—S2 species. Some S3-ranked species, including all S3 species that are listed as candidates for federal or state listing, will also be considered rare. Other S3 species may be considered rare based on the assessment by the landowner or manager conducted per Indicator 6.1.1 .
Ratified	The process by which an international law, convention or agreement (including multilateral environmental agreement) is <i>legally*</i> approved by a national legislature or equivalent legal mechanism, such that the international law, convention, or agreement becomes automatically part of <i>national law*</i> or sets in motion the development of <i>national law*</i> to give the same <i>legal*</i> effect. [Source: FSC-STD-01-001 V5-2]
Reasonable	Judged to be fair or appropriate to the circumstances or purposes, based on general experience. [Source: Shorter Oxford English Dictionary]
Refugia	(plural) <i>Habitat*</i> in which a population can persist and from which it can disperse when the surrounding <i>habitat*</i> becomes suitable for it to live in; locations and <i>habitats*</i> that support populations of organisms that are limited to a small fragment of their previous geographic range.

Regeneration harvest	Any removal of trees intended to assist regeneration already present or to make regeneration possible.
Representative Sample Areas (RSAs)	<p>Portions of the <i>Management Unit</i>* delineated for the purpose of <i>conserving</i>* or <i>restoring</i>* <i>viable</i>* examples of an <i>ecosystem</i>* that would naturally occur in that ecological region. <i>RSA</i>* may also:</p> <ul style="list-style-type: none"> a. serve to <i>conserve</i>* or <i>restore</i>* an under-represented ecological condition (i.e., <i>forest</i>* <i>successional</i>* phases, ecological communities); and/or b. serve as a set of <i>conservation zones</i>* or <i>refugia</i>* for <i>species</i>*, communities, and/or community types not addressed in other <i>Criteria</i>* of this Standard. <p>[Source: adapted from FSC-STD-60-004 V2-0]</p>
Resilience	<p>The ability of a system to maintain key functions and processes in the face of stresses or pressures by either resisting or adapting to change. <i>Resilience</i>* can be applied to both <i>ecological systems</i>* and social systems. [Source: IUCN World Commission on Protected Areas (IUCN-WCPA). 2008. Establishing Marine Protected Area Networks – Making it Happen. Washington D.C.: IUCN-WCPA National Oceanic and Atmospheric Administration and The Nature Conservancy.]</p>
Restore (Restoration)	The process of modifying or repairing a <i>habitat</i> * or <i>ecosystem</i> * to introduce or reintroduce composition, structures, and functions that are native to the site.
Restoration harvest	A harvest that is intended to move a <i>forest</i> * closer to fully representing the principal characteristics and key elements of a particular native <i>forest</i> * <i>ecosystem</i> * and thereby moving it closer to a <i>natural forest</i> * condition.
Retention	Living vegetation, including trees, shrubs, and herbaceous <i>species</i> *, that is retained during even-aged and two-aged regeneration harvests.
Rights	In the context of access rights and <i>use rights</i> *, “rights” is used to reference <i>legal</i> * rights and <i>customary rights</i> * held by <i>Native American</i> * groups, and <i>legal</i> * rights held by all other <i>rights holders</i> *.
Rights holder	Persons and groups, including <i>Native American groups</i> *, <i>traditional peoples</i> *, and <i>local communities</i> *, with <i>legal</i> * rights or, in the case of <i>Native American</i> * groups, with <i>legal</i> * or <i>customary rights</i> *, including treaty rights, to land and/or resources within the <i>Management Unit</i> *. For <i>rights</i> * held by <i>Native American groups</i> *, <i>traditional peoples</i> *, and <i>forest-dependent local communities</i> *, <i>free, prior, and informed consent</i> * is required to determine management decisions. [Source: Adapted from FSC-STD-60-004 V2-0]
Riparian area	Interface between upland communities and a <i>water body</i> * often delineated and managed to conserve the plant and wildlife <i>habitat</i> * characteristics of

	the area and to <i>protect*</i> adjacent aquatic <i>habitats*</i> and <i>ecosystems*</i> . <i>Riparian areas*</i> vary in width according to biotic and abiotic characteristics and may be wider than a <i>riparian management zone*</i> (RMZ), which is designed to <i>protect* water quality*</i> and <i>aquatic habitat*</i> .
Riparian management zone (RMZ)	Areas next to rivers, streams, <i>wetlands*</i> , <i>vernal pools*</i> , seeps and springs, lake and pond shorelines, karst, and other hydrologically sensitive areas where management practices are modified to <i>protect* water quality*</i> and <i>aquatic habitats*</i> by minimizing non-point source pollution to surface waters. In addition to their primary purpose of <i>protecting* water quality*</i> , these areas also provide similar ecological functions to <i>riparian areas*</i> .
Riparian zone	See <i>riparian area*</i> .
Risk	The probability of an unacceptable negative impact arising from any activity in the <i>Management Unit*</i> combined with its seriousness in terms of consequences. [Source: FSC-STD-01-001 V5-2]
Rutting	The creation of depressions made by tires and treads of mechanical equipment such as trucks, skidders, tractors, all-terrain vehicles (ATV), and other equipment. Rutting may occur in the general harvest area and on facilities such as roads and skid trails. Ruts may result from harvest operations or other uses such as recreational ATV use.
Scale	A measure of the extent to which a <i>management activity*</i> or event affects an environmental value or a <i>Management Unit*</i> , in time or space. An activity with a small or low spatial <i>scale*</i> affects only a small proportion of the <i>forest*</i> each year, an activity with a small or low temporal <i>scale*</i> occurs only at long intervals. [Source: FSC-STD- 01-001 V5-2]
Scale, intensity, and risk	See individual definitions for <i>scale*</i> , <i>intensity*</i> , and <i>risk*</i> .
Semi-natural forest	A <i>forest* ecosystem*</i> with many of the characteristics of native <i>ecosystems*</i> present. <i>Semi-natural forests*</i> exhibit a history of human disturbance (e.g., harvesting or other <i>silvicultural*</i> activities). <i>Semi-natural forests*</i> are very common in the United States, and include a considerable amount of unmanaged, as well as most of the managed, <i>forest*</i> land that is not classified as <i>plantation*</i> .
Significant	For the purposes of Principle 9, <i>HCVs 1, 2 and 6*</i> there are three main forms of recognizing <i>significance*</i> . <ul style="list-style-type: none"> • A designation, classification or recognized <i>conservation*</i> status, assigned by an international agency such as IUCN or Birdlife International; • A designation by national or regional authorities, or by a responsible national <i>conservation*</i> organization, on the basis of its concentration of <i>biodiversity*</i>;

	<ul style="list-style-type: none"> • A voluntary recognition by the manager, owner or <i>Organization*</i>, on the basis of available information, or of the known or suspected presence of a <i>significant* biodiversity*</i> concentration, even when not officially designated by other agencies. <p>Any one of these forms will justify designation as <i>HCVs 1, 2 and 6*</i>. Many regions of the world have received recognition for their <i>biodiversity*</i> importance, measured in many different ways. Existing maps and classifications of priority areas for <i>biodiversity* conservation*</i> play an essential role in identifying the potential presence of <i>HCVs 1, 2* and 6*</i>. [Source: FSC-STD-01-001 V5-2]</p>
Silviculture (Silvicultural)	The art and science of controlling the establishment, growth, composition, health and quality of <i>forests*</i> and woodlands to meet the targeted diverse needs and values of landowners and society on a sustainable basis. [Source: Nieuwenhuis, M. 2000. Terminology of Forest Management. IUFRO World Series Vol. 9. IUFRO 4.04.07 SilvaPlan and SilvaVoc]
Slope	The incline of the land surface measured in degrees from the horizontal or in percent as determined by the number of units change in elevation per 100 of the same measurement units; also characterized by the compass direction in which it faces.
Small	When used in reference to an ownership or <i>Management Unit*</i> , see <i>Family Forest*</i> .
Snag	A standing dead tree.
Soil	Earth material (rock) so modified by physical, chemical, and biological agents that it will support rooted plants. <i>Soil*</i> also includes organic material, biotic communities, and <i>species*</i> that live in the ground and that contribute to ecological productivity.
Species	The main category of taxonomic classification into which genera are subdivided, comprising a group of similar interbreeding individuals sharing a common morphology, physiology, and reproductive process.
Species composition	The <i>species*</i> that occur on a site or within an <i>ecosystem*</i> at any point in time.
Stakeholder	See <i>affected stakeholder*</i> and <i>interested stakeholder*</i> .
Stand	<i>Plant communities*</i> , particularly of trees, sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguished from adjacent communities; also, may delineate a <i>silvicultural*</i> or management entity.
Streamside management zone (SMZs)	See <i>riparian management zone*</i> .

Structural diversity	The diversity in a <i>plant community</i> * that results from the variety of physical forms of the plants within the community (such as the layering of vegetation into groundcover, shrub layer, as well as understory, mid-story, and overstory trees).
Succession	Progressive changes in <i>species</i> * composition and <i>forest</i> * community structures caused by natural processes over time.
Sustained yield harvest levels	Harvest levels and rates that do not exceed growth over successive harvests, that contribute directly to achieving <i>desired future conditions</i> *, and that do not diminish the <i>long-term</i> * ecological integrity and productivity of the site.
Tenure (also long-term tenure, legal tenure, tenure claim)	Socially-defined agreements held by individuals or groups, recognized by <i>legal</i> * statutes or customary practice, regarding the “bundle of <i>rights</i> * and duties” of ownership, holding, access and/or usage of a particular unit of land or the associated resources therein (such as individual trees, plant <i>species</i> *, water, minerals, etc.). [Source: Adapted from World Conservation Union (IUCN). Glossary definitions provided on IUCN website]
Threat	An indication or warning of impending or likely damage or negative impacts. [Source: Based on Oxford English Dictionary]
Threatened species	Any <i>species</i> * officially designated by a state or federal agency that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Timber harvesting level	The actual harvest quantity executed on the <i>Management Unit</i> *, tracked by either volume (e.g., cubic meters or board feet) or area (e.g., hectares or acres) metrics for the purpose of comparison with calculated (maximum) <i>sustained yield harvest level</i> *. [Source: Adapted from FSC-STD-60-004 V2-0]
Traditional knowledge	Information, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity. [Source: Based on the definition by the World Intellectual Property Organization (WIPO). Glossary definition as provided under Policy/Traditional Knowledge on the WIPO website]
Traditional peoples	Social groups or peoples who do not self-identify as indigenous and who affirm <i>rights</i> * to their lands, <i>forests</i> * and other resources based on long established custom or traditional occupation and use. [Source: Forest Peoples Programme (Marcus Colchester, 7 October 2009)]
Transaction verification	Verification by <i>certification bodies</i> * and/or Accreditation Services International (ASI) that FSC output claims made by certificate holders are accurate and match with the FSC input claims of their trading partners. [Source: FSC- STD-40-004 V3-0]

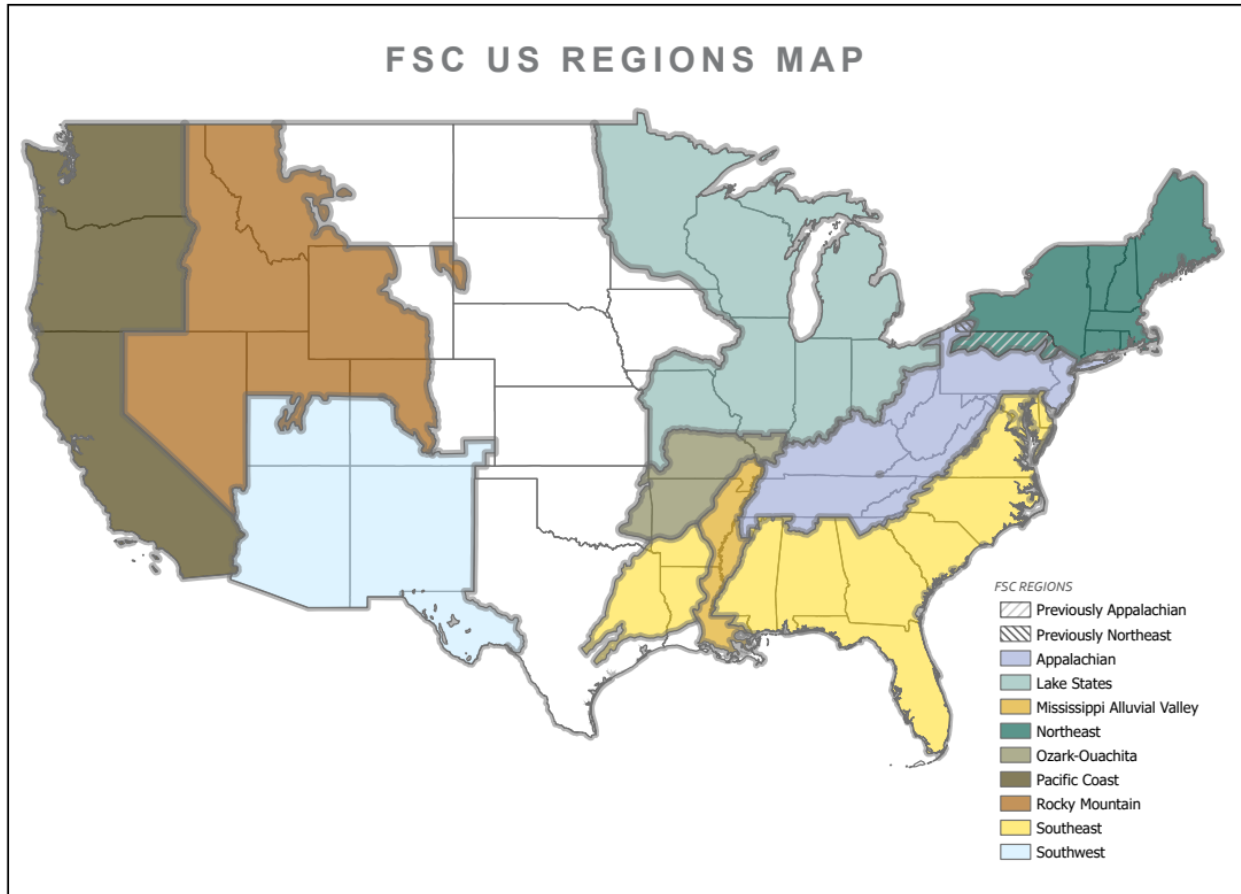
Transportation system	Permanent and temporary haul roads, skid trails, and recreational trails.
Tribal	Of or relating to the <i>Native Americans</i> * of a particular land base.
Type 1 old growth	See <i>old growth</i> *.
Type 2 old growth	See <i>old growth</i> *.
Uphold	To acknowledge, respect, sustain and support. [Source: FSC-STD-01-001 V5-2]
Use rights	<i>Rights</i> * for the use of resources of the <i>Management Unit</i> * that can be defined by local custom or mutual agreements, or be prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption or particular harvesting techniques. [Source: FSC-STD-01-001 V5-2]
Vast majority	80% of the total area of <i>Intact Forest Landscapes</i> * within the <i>Management Unit</i> * as of January 1, 2017. The <i>vast majority</i> * also meets or exceeds the minimum definition of <i>Intact Forest Landscape</i> *. [Source: FSC-STD-60-004 V2-0]
Verifiable targets	Specific goals, such as <i>desired future forest conditions</i> *, established to measure progress towards the achievement of each of the <i>management objectives</i> *. These goals are expressed as clear outcomes, such that their attainment can be verified and it is possible to determine whether they have been accomplished or not. [Source: FSC-STD-60-004 V2-0]
Vernal pool (vernal pond)	A seasonal body of water, typically a self-contained depression, that contains species not normally found in perennial <i>water bodies</i> *. <i>Vernal pool</i> * types, <i>species</i> *, and identification will vary by region. <i>Vernal pools</i> * that occur in eastern and midwestern <i>forests</i> * are characterized by a unique suite of amphibian and invertebrate <i>species</i> *. In Mediterranean-type climates (i.e., wet winters and dry summers), especially on coastal terraces in southwestern California, the central valley of California, and areas west of the Sierra Mountains, the term “vernal pool” applies to shallow, seasonally flooded wet meadows with emergent hydrophytic vegetation and invertebrate <i>species</i> * not found in other <i>wetland</i> * types.
Very limited portion	The area affected shall not exceed 0.5% of the area of the <i>Management Unit</i> * in any one year, nor affect a total of more than 5% of the area of the <i>Management Unit</i> *. [Source: FSC-STD-01-002]
Very limited portion of core area	The area affected shall not exceed 0.5% of the area of the <i>core area</i> * in any one year, nor affect a total of more than 5% of the area of the <i>core area</i> *. [Source: FSC-STD-60-004 V2-0]

Viable	In the context of <i>Representative Sample Areas*</i> , viability means that the critical components and functions of a dynamic, stochastic system at any time remain in a domain where the future existence of these components and functions is highly probable.
Waste materials	Unusable or unwanted substances or by-products, such as: <ul style="list-style-type: none"> • Hazardous waste, including chemical waste and batteries; • Containers; • Motor and other fuels and oils; • Rubbish including metals, plastics and paper; and • Abandoned buildings, machinery and equipment. [Source: FSC-STD-60-004 V2-0]
Water bodies	Seasonal, temporary, and permanent brooks, creeks, streams, rivers, ponds, and lakes. <i>Water bodies*</i> include riparian or <i>wetland*</i> systems, lakes, swamps, fens, bogs, seeps, springs, vernal pools, sinkholes, karst systems, and headwaters. [Source: FSC-STD-60-004 V2-0]
Water quality	Timing and volume of water flow and the purity of water determined by a series of standard physio-chemical parameters (e.g., turbidity, temperature, bacterial count, pH, and dissolved oxygen), or by biological parameters (e.g., community composition and functionality), as well as the incidence of disease.
Wetland	Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated <i>soil*</i> conditions. <i>Wetlands*</i> generally include swamps, marshes, bogs and similar areas. Wetlands may be isolated or connected to a broader hydrologic system. [Source: Adapted from US Environmental Protection Agency]
Whole tree removal	Harvesting operations that remove the most of the above-ground portions of the trees, including stems, branches, twigs, and leaves, from the <i>harvest unit*</i> and these materials are either left on the landing or are transported off-site.
Woody debris	All woody material, from whatever source, that is dead and lying on the <i>forest*</i> floor, where it provides important microhabitats and performs various functions of nutrient cycling. <i>Woody debris*</i> is commonly categorized as large and/or coarse, or fine, and both provide important but different ecological values.
Workers	All employed persons including public employees as well as “self-employed” persons who are implementing <i>management activities*</i> under the scope of this Standard. This includes part-time and seasonal employees, of all ranks and categories, including laborers, administrators,

	<p>supervisors, executives, contractor employees as well as self-employed contractors and sub-contractors. [Source: ILO Convention 155, Occupational Safety and Health Convention, 1981]</p>
Workers' organization	<p>Any organization of <i>workers*</i> for furthering and defending the interest of <i>workers*</i> (adapted from ILO Convention 87, Article 10). It is important to note that rules and guidance on composition of <i>workers' organization*</i> vary from country to country, especially in relation to those who are considered as rank and file members, as well those who are deemed to have power to "hire and fire". <i>Workers' organizations*</i> tend to separate association between those who can "hire and fire" and those who cannot. [Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]</p>

ANNEX B: FSC US Regions

The FSC US National Forest Stewardship Standard divides the US forested land base into nine regions (*FSC US Regions Map*). Division of the forested land base is derived from the World Wildlife Fund's (Ricketts et al. 1999) delineation of U.S. ecoregions, based on work by Omernik (1986).



Use of the FSC US Regions Map

To conform with the regional requirements contained in this standard, *The Organization** needs to identify the FSC US Region in which their *management unit** is located. However, as with any mapping effort, imperfections exist between mapping boundaries and on-the-ground conditions. Therefore, the regional boundaries depicted in the above map may be considered a high-level guide, but final decisions about applicable region should consider ecological descriptions of the regions – particularly when the *management unit** occurs in proximity to a regional boundary.

Ecological Descriptions of FSC US Regions

Appalachian

The Appalachia region is comprised of three ecoregions: the Allegheny Highlands Forests, the Appalachia Blue Ridge Forests, and the Appalachia Mixed Mesophytic Forests.

The Allegheny Plateau was dominated by stands of hemlock and beech that were sustained by periodic fire and windthrow prior to European settlement. Between 1890 and 1920, loggers cleared most of the Plateau, except for a few pockets of old growth. The considerable slash that remained after widespread cutting allowed catastrophic fires, which reduced the proportion of hemlock, white pine, sugar maple, and beech, and increased the proportion of aspen and pin cherry. Populations of deer prevent robust regeneration of many tree species in this subregion; beech is a notable exception. The Allegheny Highlands are moderately fragmented, and secondary forests now grow where agriculture failed in previous decades.

The Appalachian Blue Ridge Forests and the Appalachian Mixed Mesophytic Forests represent some of the world's most species-rich forests. A large variety of landforms, climate, soils, and geology has led to a highly diverse assemblage of species. During Pleistocene glaciations, these ecoregions acted as a mesic and thermal refuge for several species and communities, and the legacy of that enrichment persists in today's flora and fauna. The forests are dominated by broad-leafed, deciduous plants; non-woody plants with underground, energy-storage structures; and an abundance of spring-flowering plants. For example, the Great Smoky Mountains, a subregion of the Blue Ridge Mountains, hosts over 1400 spring-flowering plants. The southern Appalachian region is the world's center of diversity for plethodontid salamanders (lungless salamanders). Small-scale diversity (alpha and beta) is high for amphibians, snails, and spiders because of a high number of ancient, relict species and the isolation that results from peak and valley topography. With 158 species of trees, the Blue Ridge Mountains are the most tree-diverse ecoregion in the United States. Together, these two ecoregions contain the highest number of endemic floral and faunal species of any region in North America.

Lake States

The Region is divided into Central Hardwoods (Kentucky, Ohio, Indiana, Illinois, Iowa) and Northwoods (Michigan, Wisconsin, and Minnesota) sub-regions.

The Northwoods sub-region can be immediately divided into northern and southern sections. The upland forests of the northern section are characterized by potential dominance of shade-tolerant species (primarily sugar maple, red maple, American beech, basswood, and eastern hemlock) on mesic to dry mesic sites and by pines (jack, red, and eastern white), oaks (northern red, northern pin, and white) and aspen (trembling and bigtooth) on drier, nutrient-poorer sites. Presence of any of the conifer species in predominantly deciduous forest is another characteristic of the northern forest. There also are extensive lowland forests dominated by coniferous (balsam fir, northern white cedar, black spruce, and tamarack) or deciduous species (black ash, red maple, balsam poplar).

The northern subsection is further characterized by an extensive cover of continuous forest with relatively little *fragmentation** while the southern section is dominated by relatively small woodlots in an agricultural matrix. Historically, the predominant agent of natural disturbance was wind in the north and fire in the south.

The forest of the southern section is characterized by a predominance of oaks (primarily northern red, white, black, bur) and a general absence of conifers. Many oak communities are fire-dependent and, where seed sources exist, are now succeeding to shade tolerant species.

The Central Hardwoods sub-region can be divided into the glaciated area of northern Iowa, Illinois, Indiana, and Ohio and the unglaciated southern portion of these states plus Kentucky. The northern area has limited topographic relief and highly fragmented natural ecosystems due to past clearing for agriculture. Further, the western portion of the glaciated area, from Iowa to western Indiana, was historically a mixture of prairie and oak/hickory forest that was largely controlled by Native Americans through the use of fire. The southern unglaciated area, on the other hand, has greater topographic relief and much greater forest cover than the northern area. The entire sub-region has been heavily disturbed by human activities, which means that most of the existing forest stands date from the late 1800s.

This sub-region has a great diversity of forest species that occur on sites ranging from dry to wet. A typical woodland has 20 to 30 species of commercially important trees. Due to past disturbances, most of the forests are currently dominated by seral species of oak and hickory with more tolerant species of maple and beech in the sub-canopy. Many of the remaining old stands are dominated by seral species, which probably reflect Native American activities that predate European occupation of the landscape.

*Species composition** varies with site conditions. In the north, the relatively flat topography generally has poor surface drainage, so a typical woodland has such wet site species as bur oak, swamp white oak, green ash, and red maple in depressional areas. In contrast, better-drained soils in the same woodland have northern red oak, white oak, white ash, American elm, and sugar maple as major species. In the hillier southern areas, the above species occur along with black oak, scarlet oak, and chestnut oak on drier upper slope positions while yellow poplar becomes much more abundant on the better sites of north facing slopes and in minor stream valleys. Major floodplains of the sub-region generally have flood tolerant species, such as eastern cottonwood and silver maple.

Coniferous species are of minor importance in this sub-region. Eastern red cedar and Virginia pine become more common in the southern areas. There are also a few relic stands of Northwoods species, such as eastern white pine and eastern hemlock. In addition, species of southern pine and eastern white pine have been widely planted to control *erosion** on disturbed lands.

Mississippi Alluvial Valley

The region includes the Mississippi River alluvial valley (mostly a bottomland hardwood ecosystem) and the western Gulf coastal plain (mostly loblolly pine and slash pine production, with a significant plantation component).

Bottomland hardwood forests of the region range from the Obion-Forked Deer River and Hatchie River basins in Tennessee and the Yazoo River basin in Mississippi on the eastern side of the region to the Big Thicket in east Texas on the western side.

The upland coastal plain pine and pine-hardwood forests of the Gulf western coastal plain are a major source of pulp, paper, and timber products. Over 10% of those forests are plantations, and are managed in relatively short, intensive rotations. The region is bordered on the north by the Ouachita Mountains and by the Great Plains.

Northeast

This region contains, for instance, the New England/Acadian Forests, Eastern Forest/Boreal Transition, Northeastern Coastal Forests, Allegheny Highlands Forests, Eastern Great Lakes Lowland Forests, and the Southern Great Lakes Forests.

In the northeasterly portions of this region, the mountainous New England/Acadian Forests cover large areas of Maine, Vermont, New Hampshire, and Massachusetts and often are found forming a mosaic of forest and non-forest habitats. The Eastern Forest-Boreal Transition are mixed forests that are distinct from the more deciduous forests in the south and boreal forests to the north. White oak and red oak are the dominant species in the Appalachian-type oak forests that dominate the Northeastern Coastal Forest ecological type. The Allegheny Highlands Forests were once dominated by hemlock and beech, and historic soil drainage patterns segregates areas dominated by beech, hemlock, and white pine from those dominated by hemlock and yellow birch.

Around the great lakes, exists the Eastern Great Lakes Lowland Forests and the Southern Great Lakes Forest. The former includes the lowland areas of New York and Vermont around the Adirondacks. The latter are dominated by deciduous forests that are different from the mixed forests to the north and that contain lower species diversity than the forested regions to the east and south.

Ozark-Ouachita

Forest types in this region range from oak-hickory to oak- hickory-pine-cedar, to pine savanna. The region supports a wide diversity of hardwood tree species as well as other species.

The Ouachita sub-region differs from the Ozark sub-region in several ways. The former has historically undergone more intensive silvicultural management including extensive conversion to plantations of both native and non-native pines. The latter, although having undergone extensive logging throughout the early part of the 20th century, retains more natural characteristics than the Ouachitas.

The Ozark Mountain Forests were a refuge for lowland species during the Pleistocene Era. Accordingly, pockets of the region remain highly biodiverse, but only about three percent of the region's forests remain intact (Ricketts et al. 1999). The upper-level forests are in relatively good condition, but lowland forests have been severely modified and destroyed to make room for agriculture in the valleys. The Boston Mountains (in the Ozark subregion) and the Ouachita Mountains contain the only relatively intact blocks in the region, and corridors between those two areas are degraded by agricultural activities. Much of the region was heavily logged around the beginning of the 20th century and stands over 100 years old are rare.

Prior to European settlement, the Ouachita Mountain subregion was the largest shortleaf pine forest in the world (Smith 1986). Over 3,000,000 acres were dominated by shortleaf pine, sometimes in pure stands that grew in open, glade-like conditions. Shortleaf stands have been nearly completely converted to loblolly plantations and loblolly-hardwood semi-natural forests. The Ozark subregion has been subject to degradation from high-grade logging, and poor silvicultural management has resulted in forests of low economic value where more valuable forests once stood.

Pacific Coast

This region covers all of Washington, Oregon, and California. In the north, it contains, for instance, the Central Pacific Coastal Forests, Central and Southern Cascades Forests, Blue Mountains Forests, and Eastern Cascade Forests. In California are the Northern California Coastal Forests, Kalamath-Siskiyou Forests, and Sierra Nevada Forests.

The Central Pacific Coastal Forests are some of the most productive forests in the world, contain large trees, luscious mosses, and diverse ferns and herbs. The vegetation of the Eastern Cascade Forests is highly variable and is located on the eastern slopes of the Cascade Mountains in Oregon and Washington. Riparian and old growth forests are important habitats in the Blue Mountains Forests, located in northeastern Oregon and southeastern Washington.

In California, the Northern California Coastal Forests is, in many ways, an extension of the Central Pacific Coastal Forests to the north. However, in California, these forests contain the redwoods, which are found in groves of patchy distribution among other communities like Douglas fir-tanoak forests and closed-cone pine forests. Located on the border of California and Oregon, the Klamath-Siskiyou Forests contain remarkable biodiversity. The Sierra Nevada Mountains contain the Sierra Nevada Forests, but many of these forests have been converted to plantation.

Rocky Mountain

This region is a mountainous and highly diverse forested region with significant conservation values. For example, this may be the only region in the Lower 48 with a full complement of the native species that occurred here 200 years ago.

The region is characterized by natural and semi-natural forests, with few plantations. Forest types range from wet and highly productive cedar-hemlock types to vast expanses of semi-moist lodgepole pine types to dry ponderosa pine types. Generally, the region's forests are slower growing and less productive than most other forested regions in the United States. The region's forests have been affected to various degrees over the past 100 years by fire exclusion and high-grade logging of large-diameter, fire-resistant, mid-seral species trees.

Southeast

This region is characterized by several conifer forest ecosystems including, for instance, the Middle Atlantic Coastal Forests, Southeastern Mixed Forest, Southeastern Conifer Forest, and Pine Woods Forest.

The Middle Atlantic Coastal Forest define the eastern US coastline from Maryland to Georgia. This forested ecoregion contains diverse assemblages of freshwater wetlands associated with Atlantic white cedar swamps and bottomland forest dominated by cypress and gum trees. The Southern Mixed Forests is situated between the Appalachian/Blue Ridge Mountains and the Atlantic Coastal plain. These mixed forests contain characteristics from both the mesophytic forests to the north and the historically long-leaf pine dominated ecosystems of the Southeastern Conifer Forests to the south.

The far western portion of this region contains the Piney Woods Forests, which are located in eastern Texas, northwestern Louisiana, and southwestern Arkansas. These forests are dominated by oak, hickory, and pine. While historically characterized by long-leaf pine, pine plantations are now widespread.

Southwest

This region is defined as the states of New Mexico and Arizona, and the southern parts of Utah and Colorado below the zone in which lodgepole pine becomes a major forest type. A relatively limited range of major forest types occur in the Southwest, and most of these occur as forested "montane islands." All forest types, from riparian broadleaf forests in the valleys to alpine bristlecone pine, play important ecological and social roles. From a commercial management standpoint, however, there are four basic forest types of regional importance: ponderosa pine,

mixed conifer (ponderosa pine, Douglas-fir, white fir), spruce-fir (Englemann spruce, corkbark or subalpine fir), and aspen. Mixes of tree species in these types tend to be simple. Extensive pinyon-juniper woodlands also play an important economic role.

Ponderosa pine is the major forest type in the Southwest. Pine accounts for approximately 88% of the forest cover in Arizona, while Utah's forestlands are predominantly spruce-fir and aspen types. These differences in forest type derive from variations in general landscape features between southern states with broad mid-elevation plateaus and northern states with more mountainous landscapes.

Lowland-riparian forests which typically including a mix of cottonwood, willow, and other broadleaf species, have suffered drastic reductions in extent and quality throughout the region due to a combination of grazing, harvesting, mining, dams, and invasive exotic plants.

Management activities (including harvesting, fire and fuels management, grazing, etc.) have given rise to substantial acreages that are overstocked with slow-growing small-diameter trees. Moreover, recent FIA data suggest that, regionally, mortality continues to outpace growth in several of the larger-diameter classes among species and localities. Additionally, like other areas of the country, the Southwest region must contend with variety of problems that deal with forest insects and diseases, which include: the bark beetles, western spruce budworm, western tent caterpillar, and dwarf mistletoe.

ANNEX C: *Applicable Laws**, Regulations and Nationally Ratified Agreements

Annex C is not a comprehensive list of all *applicable laws**. Rather the Annex is provided as a partial list which includes those laws that will be relevant to most FSC certified Organizations*.

Relevant international treaties/agreements to which the United States is a signatory:

- Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere (1940)
- The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (1971)
- United Nations Conference on the Human Environment
- Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, France, 16 Nov 1972)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Washington DC, 1973)
- International Plant Protection Convention (IPPC) (1979 Revised Text) (Rome, Italy, 1979)
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn, Germany, 23 Jun 1979)
- UN Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007)

The below is a federal overview. State laws also play an important role in governing *forest** management (i.e., state forestry rules), permitting of particular activities, *species** classification (i.e., state-level lists of threatened and endangered species), and other aspects of forestry (e.g., state best management practices for water quality, state wildlife laws, state land use laws, state environmental assessment laws, state tax laws, laws governing management of state-administered forests, state laws governing chemical application), but are unique to each state.

Category	Name of Law/Legislation
1. Legal rights to harvest	
1.1 Land <i>tenure*</i> and management rights	<ul style="list-style-type: none"> ● Forest Reserve Act of 1891 ● Organic Act (1897) ● Bankhead-Jones Farm Tenant Act of 1937 ● Multiple-Use Sustained-Yield Act (1960) ● National Forest Management Act (1976) ● Cooperative Forestry Assistance Act of 1978
1.2 Concession licenses	<ul style="list-style-type: none"> ● 36 CFR §223: Sale and disposal of national forest system timber ● This is also largely regulated at the state level

1.3 Management and harvesting planning	<ul style="list-style-type: none"> ● Wilderness Act (1964) ● Bankhead-Jones Farm Tenant Act of 1937 ● National Forest Management Act (1976) ● Cooperative Forestry Assistance Act of 1978 ● Multiple-Use-Sustained-Yield Act of 1960 (MUSYA) ● Federal Land Policy and Management Act of 1976 ● 2012 USFS Planning Rule (36 CFR §219) ● Forest Service Directives: Forest Service Manuals (FSM) and Forest Service Handbooks (FSH) ● Food, Agriculture, Conservation, and Trade Act of 1990 ● Forest Stewardship Act of 1990
1.4 Harvesting permits	<ul style="list-style-type: none"> ● USDA Regulations: 36 CFR §251 and 36 CFR §223 ● See relevant state laws governing harvesting permits
2. Taxes and fees	
2.1 Payment of royalties and harvesting fees	<ul style="list-style-type: none"> ● Knutson-Vandenberg (K-V) Act of 1930 ● The USFS is authorized to charge fees for many uses and services on NFS lands[1]
2.2 Value-added taxes and other sales taxes	<i>Sales tax is assessed at the state level</i>
2.3 Income and profit taxes	<ul style="list-style-type: none"> ● Internal Revenue Code of 1986 ● Relevant state taxes
3. Timber harvesting activities	
3.1 Timber harvesting regulations	<ul style="list-style-type: none"> ● Lacey Act (1900) and 2008 amendment ● Multiple-Use-Sustained-Yield Act of 1960 (MUSYA) ● Federal Land Policy and Management Act of 1976 ● National Forest Management Act (1976) ● Cooperative Forestry Assistance Act of 1978 ● Food, Conservation, and Energy Act of 2008 ● 2012 USFS Planning Rule (36 CFR §219) ● USDA Regulations (36 CFR §251)
3.2 Protected sites and <i>species</i> *	<ul style="list-style-type: none"> ● Lacey Act (1900) ● Endangered Species Act (1973) ● National Historic Preservation Act (1966)

3.3 Environmental requirements	<ul style="list-style-type: none"> ● Lacey Act (1900: 16 USC Ch. 53 §3371–3378) ● Bankhead-Jones Farm Tenant Act of 1937 ● Clean Air Act (1970; 42 USC Ch. 85) ● National Environmental Policy Act (NEPA; 1970; 42 USC Ch. 55) ● Clean Water Act (1972) ● Endangered Species Act (1973) ● Resource Conservation and Recovery Act (1976) ● Cooperative Forestry Assistance Act of 1978 ● Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ● 2012 USFS Planning Rule (36 CFR §219) ● Food, Agriculture, Conservation, and Trade Act of 1990 ● Forest Stewardship Act of 1990
3.4 Health and safety	<ul style="list-style-type: none"> ● Occupational Safety and Health (OSH) Act ● EPA Toxic Substances Control Act (TSCA) Title VI (EPA formaldehyde emission regulation) ● US Housing and Urban Development (HUD) Manufactured Home Construction and Safety Standards (24 CFR §3280) ● 49 CFR Parts 300–399: Regulations of the Federal Motor Carrier Safety Administration (FMCSA)
3.5 <i>Legal</i> * employment	<ul style="list-style-type: none"> ● Relevant US federal and state labor and employment laws, including but not limited to: <ul style="list-style-type: none"> ○ Fair Labor Standards Act (FLSA) ○ Immigration and Nationality Act (INA) ○ Migrant and Seasonal Agricultural Worker Protection Act (MSPA)
4. Third parties' rights	
4.1 <i>Customary rights</i> *	<ul style="list-style-type: none"> ● Although not explicitly addressed in US regulations, the US is a signatory to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which addresses indigenous peoples and customary land rights.
4.2 <i>Free, Prior, and Informed Consent</i> *	<ul style="list-style-type: none"> ● <i>Free, prior, and informed consent (FPIC)*</i> is established in international law (UN Declaration on the Rights of Indigenous Peoples), to which the US is a signatory. However, <i>FPIC*</i> is not addressed explicitly in the US Code. ● U.S. court cases may clarify the standing of <i>FPIC*</i> in the US. The Supreme Court case <i>Montana v. United States</i> held “that tribes have civil jurisdiction over ‘nonmembers who enter [into] consensual relationships with [a] tribe or its members’ and over

	nonmembers who threaten or “[have] some direct effect on the political integrity, the economic security, or the health or welfare of [a] tribe.”[2]
4.3 <i>Indigenous Peoples* rights*</i>	<ul style="list-style-type: none"> • 25 USC §1–17, establishing the Bureau of Indian Affairs • Cooperative Forestry Assistance Act of 1978 and Food, Agriculture, Conservation, and Trade Act of 1990 • Healthy Forest Restoration Act (2003)
5. Trade and transport	
5.1 Classification of <i>species*</i> , quantities, qualities	<i>Classification systems are assessed at the regional USFS level</i>
5.2 Trade and transport	<ul style="list-style-type: none"> • Lacey Act (1900) and 2008 amendment • Endangered Species Act (1973) • 15 CFR: Commerce and Foreign Trade
5.3 Offshore trading and transfer pricing	<ul style="list-style-type: none"> • Internal Revenue Code of 1982 • Countries with transfer pricing regulations generally follow guidelines from the Organisation for Economic Cooperation and Development (OECD) guidelines • Although the IRS provides rules for transfer pricing, offshore trading is often difficult to regulate by national governments
5.4 Custom regulations	<ul style="list-style-type: none"> • Homeland Security Act of 2002 and establishment of Customs and Border Protection • 15 CFR: Commerce and Foreign Trade
5.5 CITES	<ul style="list-style-type: none"> • Lacey Act (1900) and 2008 amendment • Endangered Species Act (1973)
6. Due diligence/due care	
6.1 Due diligence/due care procedures	<ul style="list-style-type: none"> • The Lacey Act (1900) does not contain specific due diligence requirements but requires “due care,” which has been used in cases of Lacey Act infringement[3] (i.e., it is the responsibility of those in the timber/forestry industries to ensure practices and trade do not violate the Lacey Act). • Penalties for violation of the Lacey Act are financial penalties and possible imprisonment.
7. Ecosystem services*	

	<ul style="list-style-type: none"> ● Food Security Act of 1985 ● Food, Conservation, and Energy Act of 2008 ● Food, Agriculture, Conservation, and Trade Act of 1990 ● National Forest-Dependent Rural Communities Economic Diversification Act of 1990
--	---

8. ILO Conventions and Codes that have an impact on forestry operations and practices

	<ul style="list-style-type: none"> ● 29 Forced Labour Convention, 1930. ● 87 Freedom of Association and Protection of the Right to Organise Conventions, 1948. ● 97 Migration for Employment (Revised) Convention, 1949. ● 98 Right to Organise and Collective Bargaining Convention, 1949. ● 100 Equal Remuneration Convention, 1951. ● 105 Abolition of Forced Labour Convention, 1957. ● 111 Discrimination (Occupation and Employment) Convention, 1958. ● 131 Minimum Wage Fixing Convention, 1970. ● 138 Minimum Age Convention, 1973. ● 141 Rural Workers’ Organizations Convention, 1975. ● 142 Human Resources Development Convention, 1975. ● 143 Migrant Workers (Supplementary Provisions) Convention. 1975 ● 155 Occupational Safety and Health Convention, 1981. ● 169 Indigenous and Tribal Peoples Convention, 1989. ● 182 Worst Forms of Child Labour Convention, 1999. ● ILO Code of Practice on Safety and Health in Forestry Work (ILO 1998)
--	--

8. Other Applicable Laws/Legislation

	<ul style="list-style-type: none"> ● 18 USC Section 201 criminalizes corruption of US federal public officials ● The Foreign Corrupt Practices Act of 1977 (FCPA) prohibits U.S. citizens and entities from bribing foreign government officials ● 36 CFR—Parks, Forests, and Public Property is the US Forest Service’s official and complete text of agency regulations. ● Title 16 of the US Code is the <i>legal*</i> basis governing <i>conservation*</i> and national parks and <i>forests*</i>. ● 9 USC Section 2 (The Federal Arbitration Act) was enacted to
--	--

	ensure the validity and enforcement of arbitration agreements in any “maritime transaction or ... contract evidencing a transaction involving commerce[.]”
--	--

[1] Riddle, A. (2019): Timber Harvesting on Federal Lands. *Congressional Research Service*

[2] Fredericks, C.F. (2017): Operationalizing Free, Prior, and Informed Consent. *Albany Law Review* 80 (pp. 429–482)

[3] <https://www.illegal-logging.info/topics/us-lacey-act>

ANNEX D: Dispute Management System Framework

The following guidance is intended to help *The Organization** conform with Criterion 1.6, but is not normative. Other *dispute** resolution approaches that align with the *Criterion** may also be used.

Background on the Structure of the Dispute Resolution *Criteria**

This Standard requires *The Organization** to have a system in place to identify, prevent, and resolve *disputes** related to:

- *Applicable law** (Criterion 1.6);
- Working conditions while working for *The Organization** (Criterion 2.6);
- Violations of *rights** held by *Native American* Indigenous Peoples** (per Criterion 3.2); and
- Impacts of *management activities** on affected *local communities** and other *affected stakeholders** (Criterion 4.6).

FSC has developed a consistent, standardized framework to address the application of a system for managing (i.e., receiving, managing, and resolving) disputes amongst various parties and aspects of *forest** management. The framework for addressing *disputes** throughout the Standard is provided in the *Indicators** of Criterion 1.6 and is designed to address the various types of *disputes** raised by *employees**, *independent contractors**, *Native American* Indigenous Peoples**, *local communities** and/or *affected stakeholders**. It is intended to ensure the appropriate level of response and action required is taken by *The Organization**.

FSC has applied this framework to each applicable *Criterion** (1.6, 2.6, 3.2, and 4.6) and supports the use of the same framework to meet the requirements of the *Indicators** in different *Criteria**. The general framework steps identified in Criterion 1.6 and applied to Criteria 2.6, 3.2, and 4.6 are:

- 1.) A system is in place whereby people can make their *disputes** known to *The Organization** (Criterion 1.6.1).
- 2.) A general dispute resolution process (see guidance, below) is in place that prior to implementation can be adapted through *engagement** when needed and can be adapted to ensure *culturally appropriate* engagement**. *Disputes** are resolved in a *timely manner** via this process (Criterion 1.6.2).
- 3.) For Principles 1, 3, and 4 only: If the *dispute** is elevated to a *dispute of substantial magnitude**, then the value or right at *risk** must be maintained/*protected** while the *dispute** is being resolved (Criterion 1.6.2).
- 4.) Records of *disputes** are kept, as well as outcomes of actions taken (Criterion 1.6.3).
- 5.) *The Organization** manages and resolves *disputes** in a manner consistent with this Annex (Criterion 1.6.4).

Where *applicable laws** exist for resolving grievances and/or compensation out of court, implementation of these *legal** provisions might suffice to conform with relevant *Indicators** in Criteria 1.6, 2.6, 3.2, and/or 4.6.

This framework is intended to provide parties with an avenue to manage *dispute** resolution in *good faith** and outside of court. However, if *good faith** is exhausted and the parties have not agreed on a resolution, *The Organization's** dispute resolution responsibility (per the above Step 2) ends. The party bringing the *dispute** may: 1) discontinue their pursuit of the *dispute**; 2) address the *dispute** to *The Organization's* Certification Body** (if the *dispute** pertains to conformance with FSC standards); 3) address the *dispute** to FSC International per FSC-PRO-01-008, *Processing Complaints in the FSC Certification Scheme* (if the *dispute** pertains to the FSC system); or 4) seek resolution through the court system (if the *dispute** pertains to a *legal** issue). Parties with a *dispute** are always encouraged to first bring the issue forward to *The Organization** for resolution prior to enacting the *Certification Body's* dispute** resolution system or a *legal** procedure.

Pertinent Definitions

Complaint	The expression of dissatisfaction or concern by any person or organization presented to <i>The Organization*</i> , relating to its <i>management activities*</i> or its conformity with the FSC Principles and Criteria, where a response is expected.
Dispute	A <i>dispute*</i> exists when the parties have exhausted consultative avenues to resolve a <i>complaint*</i> or other differences and the following occurs: a person or persons whose <i>rights*</i> or interests are directly affected by <i>The Organization's*</i> activities gives written notice to <i>The Organization*</i> , indicating that they wish to pursue a <i>dispute*</i> resolution process and specifying which <i>rights*</i> or interests are affected, by which <i>management activities*</i> , in which location, and what modifications are considered appropriate to avoid or mitigate impacts on the <i>rights*</i> or interests; OR, <i>The Organization*</i> gives written notice to the disputant, in order to trigger the <i>dispute*</i> resolution process and bring closure to the disagreement.
Dispute of substantial duration	<i>Dispute*</i> that continues for more than twice the duration of the predefined timelines for resolving complaints* or appeals in the FSC System (i.e., continues for more than 6 months after receiving the <i>complaint*</i> , based on the 3 month timeline in FSC-STD-20-001).
Dispute of substantial magnitude	<p><i>Dispute*</i> that involves one or more of the following:</p> <ul style="list-style-type: none"> ● Where the negative impact of <i>management activities*</i> on <i>local communities* legal* rights</i> or on <i>Native American* Indigenous Peoples** legal* rights</i> or <i>customary rights*</i> is of such a scale that it cannot be reversed or mitigated ● Where the negative impact of <i>management activities*</i> to the environment or social welfare is of such a scale and context that it cannot be reversed or mitigated ● Physical violence ● Significant destruction of property ● Law enforcement or armed security contractors are engaged in the <i>dispute*</i> ● Acts of intimidation against <i>workers*</i> and <i>affected stakeholders*</i> ● A <i>dispute*</i> can become of substantial magnitude if it is of <i>substantial duration*</i>, involves a significant number of interests and/or has a significant negative impact to the <i>forest* resource/value</i>

	<ul style="list-style-type: none"> • A <i>complaint</i>* can immediately become a <i>dispute of substantial magnitude</i>* if it represents a credible, imminent, and irreparable threat to or from any of the above <p><i>Disputes of substantial magnitude</i>* are not common and represent the exception.</p>
Engaging/ engagement	The process by which <i>The Organization</i> * communicates, consults, and/or provides for the participation of <i>interested and/or affected stakeholders</i> *, ensuring that their concerns, desires, expectations, needs, rights, and opportunities are considered in the establishment, implementation and updating of the <i>management plan</i> *.
Good faith	The principle of <i>good faith</i> * implies that the parties make every effort to reach an agreement, conduct genuine and constructive negotiations, avoid delays in negotiations, respect concluded agreements, and give sufficient time to discuss and settle <i>disputes</i> *.
Management activity	Any or all operations, processes, or procedures associated with managing a <i>forest</i> *, including but not limited to: planning, consultation, harvesting, access construction and maintenance, <i>silvicultural</i> * activities (planting, site preparation, tending), monitoring, assessment, and reporting.

Guidance for Organizations*

The following sections provide additional guidance for implementing the *dispute** management framework. For instance, information is provided on *dispute** management as it relates to *Native American* Indigenous Peoples**, guidance is provided for developing the *dispute** resolution process component of the broader *dispute** management framework, and several rare situations involving *disputes** are clarified.

Dispute* Management Processes and Native American* Indigenous Peoples*

*Disputes** from *Native American* Indigenous Peoples** are normally dealt with using the structure as described above. However, when *disputes** from *Native American* Indigenous Peoples** are related to the implementation of agreements they have with *The Organization**, these are addressed by the other *Indicators** in Principle 3.

Dispute* Resolution Process

The design of the *dispute** resolution processes and the related resolution mechanisms should consider the following:

- Account for a wide range of situations, including addressing cases of *disputes of substantial magnitude**.
- The use of different approaches to resolving the *dispute**, which may include a neutral third party to facilitate mediation, negotiation, or other conciliatory processes. These should match the level and nature of the *dispute**.
- Consensual or restorative processes such as mediation, negotiation, or other conciliatory processes where the goal is for the parties to reach agreement are preferred;

- *Disputes** are best dealt with by those closest to the situation and with the relevant parties involved. If there is a *dispute of substantial magnitude**, the response should be tied to the specific area that is under *dispute**.
- In the case of *disputes** arising from the infringement of *Native American* Indigenous Peoples* rights**, an immediate cessation of operations should be part of the resolution mechanism, for as long as is required to establish an appropriate *dispute** resolution process. The intention here is to require that the parties engage in dialogue to properly identify the nature and scope of the *dispute** and appropriate mechanisms for resolving such a *dispute**.
- Cessation of operations via *disputes of substantial magnitude**: If the *dispute** is or becomes a *dispute of substantial magnitude**, operations may be required to be suspended in the area directly related to where the *dispute** exists. For example, suspending operations may be used as a last resort when the previous actions have failed to resolve the issues, or may be necessary while *The Organization** is working with their *Certification Body** to determine whether planned activities would or would not be in conformance with the Standard. It is then required that the *dispute** resolution process includes mechanisms to address *disputes of substantial magnitude**.
 - Assessments of whether “significant destruction of property” has occurred should consider the following attributes of the destruction of property: repetition (i.e., one-time vs. multiple occurrences), permanency (i.e., whether it can be remedied/mitigated), intentionality (i.e., whether it occurred due to a mistake or accident, or was purposefully done), tangibility (i.e., whether the property damaged was physical property or other property), and defensibility (i.e., does it represent best practice or *best available information**).
 - Assessments of whether “a significant number of interests” are involved should consider the number of different types of stakeholders involved, not the absolute number of stakeholders involved, and the breadth of the stakeholder types involved (e.g., stakeholders representing all three of FSC's chambers - economic, environmental, and social).
 - Assessments of whether “significant negative impacts to the forest* resources/values” has occurred should consider the following attributes of the negative impacts: temporality (i.e., short-term vs long-term impacts), permanency (i.e., whether it can be remedied/mitigated), defensibility (i.e., does it represent best practice or *best available information**), repetition (i.e., one-time vs. multiple occurrences), spatial extent, rarity of value affected, and extent of the impact (e.g., were broad public resources or community health and safety affected, does it represent a major non-conformance to the standard).

If a *dispute** occurs, *The Organization** is expected to follow the steps required in their *dispute** resolution process, to respond in a timely manner, to document the *dispute** and the process used, and to justify unresolved *disputes**. It is also expected that all parties involved in the *dispute** are working in *good faith** and in a *reasonable** manner, and that all parties can demonstrate the efforts deployed to resolve the *dispute**.

For *interested stakeholders**, no *dispute** resolution process is formally required to be put in place. However, the Standard requires *The Organization** to provide opportunities for *engagement** in the planning process of *management activities** upon request. *Interested*

*stakeholders** may also address *complaints** regarding *The Organization's** conformance with FSC standards through *The Organization's* Certification Body** and *complaints** regarding the FSC system through FSC's *Dispute** Resolution Framework (see FSC-PRO-01-008, *Processing Complaints in the FSC Certification Scheme*).

ANNEX E: Training for *workers**

Proportionate to the *scale**, *intensity**, and *risk** of the *forest** operation, and with consideration of an individual *worker's** specific role(s) in achieving conformance with the standard, *workers** receive training (per Criterion 2.5). Training may be formal, informal, or acquired on-the-job. Evidence of training may include training records, interviews with and observations of *workers** performing job duties such that skill or knowledge acquisition is demonstrated. Training may also be demonstrated via *worker** credentials such as applicable licenses or certifications (e.g., first aid, master logger, registered professional forester, pesticide applicator license, archaeological surveyor). Worker training obtained prior to working on the *Management Unit** is applicable.

The following are examples of potentially applicable training, given the aforementioned considerations. Training on all of the topics listed may not be necessary to ensure effective and safe implementation of *management activities**.

Training that ensures *workers** are able to:

- 1.) understand their rights per *Criterion** 2.1; and
- 2.) recognize instances of sexual harassment and *discrimination** and are aware of the mechanisms available to report such cases (*Criterion** 2.2).
- 3.) implement *forest** *management plans** and operations that comply with *applicable laws** (*Criterion** 1.5);
- 4.) safely handle and dispose of hazardous substances to ensure that use does not pose health *risks** and properly use personal protective equipment (*Criterion** 2.3);
- 5.) safely carry out their respective components of the *management plan** (*Criterion** 2.5);
- 6.) identify where *Native American** groups have *legal** and *customary rights** related to *management activities** per Indicator 3.1.2;
- 7.) identify sites of special cultural, ecological, economic, religious, or spiritual significance to *Native American** groups and implement the necessary measures to *protect** them before the start of *forest** *management activities** to avoid negative impacts (*Criterion** 3.5 and *Criterion** 4.7);
- 8.) identify where *local communities** have *legal** and *customary rights** related to *management activities** (*Criterion** 4.2);
- 9.) assess potential social, economic, and environmental impacts on *local communities** and develop appropriate mitigation measures (*Criterion* 4.5);
- 10.) implement activities related to the maintenance and/or enhancement of *ecosystem services**, when FSC Ecosystem Services Claims are used per Indicator 5.1.3;

11.) appropriately handle, apply, and store *pesticides** in accordance with *The Organization's** procedures (*Criterion** 10.7); and

12.) implement *The Organization's** procedures for cleaning up spills of *waste materials** (*Criterion** 10.12).

ANNEX F: Culturally Appropriate Communication and Free, Prior, and Informed Consent (FPIC)

Scope: The following guidance focuses on communication and *FPIC** processes with *Native American* Indigenous Peoples** that hold *legal* or customary rights** that may be affected by *forest* management activities**. The *FPIC** guidance provided would also apply in any circumstances where there are *non-tribal* traditional peoples* or forest-dependent* local communities** that hold *legal** rights which may be affected by *management activities**. Due to the well-established *legal** structure in the United States for property rights, the *rights** of *non-tribal* traditional peoples* or local communities** are established within the *legal** system, including any *customary rights**; therefore, for these *non-tribal** groups, *customary rights** do not need to be considered separately. Additionally, while *The Organization** must assess the existence of *rights** held by *non-tribal* traditional peoples* or local communities**, there is very limited occurrence in the US of these kinds of *rights** and most *Organizations** will not need to consider *FPIC** with *non-tribal** groups.

NOTE: The below guidance is based on materials developed by a consultant working on behalf of FSC US, following direct in-person interactions with Native American Indigenous Peoples*.*

TABLE OF CONTENTS

Pertinent Definitions	172
Culturally Appropriate Communications	173
With Native American Groups	173
With Non-Tribal Traditional Peoples and Local Communities	175
Free, Prior and Informed Consent.....	175
Decision Tree for When FPIC is Required	180

PERTINENT DEFINITIONS

Culturally appropriate: Means/approaches for outreach to target groups that are in harmony with the customs, values, sensitivities, and ways of life of the target audience.

Customary rights: Rights that result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit

Forest-dependent: Local communities for whom *forests** provide sites and/or resources that are fundamental for satisfying their basic necessities (i.e., livelihoods, health, nutrition, water); that is, the sites and/or resources provided are irreplaceable (i.e., alternatives are not readily accessible or affordable), and loss of or damage to them would cause serious suffering of, or prejudice to, the community as a whole.

Free, Prior, and Informed Consent (FPIC): A *legal** condition whereby a person or community can be said to have given consent to an action prior to its commencement, based upon a clear appreciation and understanding of the facts, implications, and future consequences of that

action, and the possession of all relevant facts at the time when consent is given. *Free, Prior, and Informed Consent** includes the right to grant, modify, withhold, or withdraw approval

Legal: In accordance with primary legislation (*national laws** or *local laws**) or secondary legislation (subsidiary regulations, decrees, orders, etc.). “Legal” also includes rule-based decisions made by *legally competent** agencies where such decisions flow directly and logically from the laws and regulations. Decisions made by *legally competent** agencies may not be *legal** if they do not flow directly and logically from the laws and regulations and if they are not rule-based but use administrative discretion. NOTE: In the United States, treaties and reserved treaty rights are legally binding.

Local communities: Communities of any size that are in or adjacent to the *Management Unit**, and also those that are close enough to have a significant impact on the economy or the environmental values of the *Management Unit** or to have their economies, *rights**, or environments significantly affected by the *management activities** or the biophysical aspects of the *Management Unit**. On *public lands**, this also includes all citizens of the relevant entity (nation, county, city, or state).

Traditional peoples: *Traditional peoples** are social groups or peoples who do not self-identify as indigenous and who affirm *rights** to their lands, *forests**, and other resources based on long-established custom or traditional occupation and use.

CULTURALLY APPROPRIATE* COMMUNICATION

Culturally Appropriate* Communication with Native American* Indigenous Peoples*

Given that each *Native American* Indigenous People** has its own individual culture, government, and associated internal processes, what is *culturally appropriate** for one *Indigenous People** may not be for another. The key components of achieving *culturally appropriate** communication include:

1. Gathering information about the group in advance of initiating communication (i.e., some understanding of the group’s history, governance, etc.)
2. Learning about and getting to know the group as part of on-going communication
3. Adapting communication practices to make it more *culturally appropriate** for the individual group, based on what is learned
4. Developing and sustaining the relationships built through the communication

When initiating contact and communication with a *Native American* Indigenous Peoples**, the following suggestions may be considered, but should not be interpreted as a comprehensive checklist of actions to be completed:

- Review the group’s official online materials (if available).
- Review other resources that provide further understanding of the culture, history, language, and *rights** of the group that are not available from the group’s own materials.
- Always use the full correct name of the group as represented by the group in its materials.

- While the *tribal** Chairperson's office is an essential first contact for formal communication, the office may not be responsive to unfamiliar sources and may not have the capacity to respond to all inquiries; therefore, communication channels may need to be established with staff who are interested in the pertinent subject matter (e.g., Cultural Resource personnel, *forest** managers) and they may help to facilitate interactions with the group's government officials when applicable.
- *Native American** *Indigenous Peoples** may suggest meeting with cultural leaders in addition to staff or the group's government officials, in order to understand the cultural context of land management on a particular reservation. A Tribal Council may assist in locating cultural leaders.
- Generally, interactions with *Indigenous Peoples** are best conducted as they are with any other government or organization; however, understanding their individual context will be valuable for building a relationship with the *Indigenous People**. Individuals interested in *engaging** with a *Native American** *Indigenous People** are encouraged to:
 - attempt to understand the *legal** and social background of the group in question; and
 - attempt to understand the cultural and social background of the reservation and the group's membership (such information is often readily available by searching the Web).
- Remember that while much of the interaction with staff may be with non-*tribal** members, all official decisions may need to be approved by the Council.
- Oversight of the Bureau of Indian Affairs/Department of the Interior is important to keep in mind if engagement is related to *forest** *management activities** on *tribal** lands; land *management activities**, and funding for such, are often provided by the federal government.
- Genuine interest in developing a relationship may be demonstrated by in-person communication efforts vs. phone or email.
- For governmental entities that are initiating communications, an important first step is to determine whether there are previously established government-to-government lines of communication or processes that should be observed; this kind of engagement is considered more formal in nature.

Guidance for Addressing a Lack of Response from a *Native American** *Indigenous People** to Initial Outreach:

- Remember that the response from *Native American** *Indigenous Peoples** can be limited by lack of staff, time or understanding of the necessity of contact.
- Be persistent.
- Be clear regarding expectations or needs.
- If possible, work with staff as well as the group's government office. This may include repeated phone messages, emails (if an address can be obtained), and in-person communication. Once established, a relationship with an employee in the pertinent field (e.g., natural resources, cultural resources) can help to maintain proper communication and connection with the upper-level power structure of the group.

- Attempt to contact and interact with persons of interest in venues with which they are familiar, such as meetings, introductions by third parties, or conventions.
- Obtain advice from others who have previously established relationships with the individuals with whom contact is desired.
- Document contact attempts made and maintain a timeline to prove due diligence has been attempted. If no further communication is planned (due to lack of response), notify the individuals that have been the target of that communication regarding the decision and the potential implications of moving ahead without their feedback. This kind of communication may generate a response.

Culturally Appropriate* Communication with Non-Tribal* Traditional Peoples* and Local Communities*

Similar to the above guidance regarding communication with *Native American* Indigenous Peoples**, the key components of achieving *culturally appropriate** communication include:

1. Gathering information about the *Traditional People* or Forest-dependent* Local Community** in advance
2. Learning about and getting to know the group as part of on-going communication
3. Adapting communication practices to make it more *culturally appropriate** for the community, based on what is learned
4. Ensuring the initial *engagement** is on their terms (i.e., method/location)
5. Developing and sustaining the relationships built through the communication

When initiating contact and communication with a *Traditional People* or Forest-dependent* Local Community**, efforts should focus on identifying representatives who have delegated authority from the community, such as a mayor, commissioner, or other elected representative. If this is not possible, other individuals who can represent the community as a whole are preferred, such as community elders or other civic leaders.

FREE, PRIOR, AND INFORMED CONSENT*

Background: The notion of *Free, Prior, and Informed Consent (FPIC)** is drawn from policy recommendations outlined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and ILO Convention 169. *FPIC** is one of the key recommended policies for interactions with *Indigenous People** in these policy documents. FSC, in its role as the primary standards developer for management of *forests** owned or customarily used by *Indigenous Peoples**, considers *FPIC** "...a right, a principle, and a process to be applied in relations with *Indigenous Peoples** and those who have competing interests for their land and resources." Therefore, the FSC *FPIC** policy strives to provide *Indigenous People** "...the right to participate in decision-making and to give, modify, withhold, or withdraw consent to an activity affecting the holder of this right." FSC also applies *FPIC** policy to other non-tribal *traditional peoples** and *local communities** in certain contexts.

Scope: *FPIC** is required when *The Organization's* management activities** may overlap with or affect a *Native American* Indigenous People's* legal* rights or customary rights**, including *rights** of tenure and *rights** of access to resources and *ecosystem services**, both within and

external to *Native American* lands and territories**. While very uncommon in the US, *FPIC** is also required if other non-tribal *Traditional Peoples** or forest-dependent *local communities** hold *legal** rights.

STEP 1. With the assistance of FSC US, assess the historical and/or current presence of *Native American* Indigenous Peoples**, *Traditional Peoples**, and *Local Communities** (see below) within or near the *Management Unit** (MU).

- If none are identified, no *FPIC** is required
- If presence is indicated, clearly identify the *Native American* Indigenous Peoples**, *Traditional Peoples**, or *Local Communities**, and go to Step 2.

Step 1 Guidance:

- There are essentially no locations in the United States without historical *tribal** presence.
- An internet search that looks for *Native American* Indigenous Peoples** that now exist or that once existed in a particular locale is likely to turn up several possible qualifying entities. The US Forest Service maintains a comprehensive source of information on current *tribal** lands and lands that were ceded to the US government (<https://usfs.maps.arcgis.com/apps/webappviewer/index.html?id=fe311f69cb1d43558227d73bc34f3a32>). State Historic Preservation Offices, Native American Heritage Commissions, or the equivalent exist in all states, and their websites and personnel are excellent resources for confirming or identifying such *Native American* Indigenous Peoples**.
- *Native American* Indigenous Peoples** identified can include a variety of classifications, as described below with guidance regarding subsequent actions:

Table 1. Classifications of Potential *Native American* Indigenous Peoples** and Other Communities that Should be Identified and Assessed for Existence of *Rights**

Federally Recognized Tribes	Tribes and their <i>rights*</i> should be easily verifiable if a federally recognized <i>tribal*</i> government exists. If <i>legal*</i> or <i>customary rights*</i> exist, <i>FPIC*</i> needed. If <i>legal*</i> or <i>customary rights*</i> do not exist, no <i>FPIC*</i> required.
State-Recognized Tribes	Tribes and their <i>rights*</i> should be easily verifiable if a state-recognized <i>tribal*</i> government exists. <i>Tribal*</i> government requires more examination than with federally recognized tribe to confirm <i>rights*</i> . If <i>legal*</i> or <i>customary rights*</i> exist, <i>FPIC*</i> needed. If <i>legal*</i> or <i>customary rights*</i> do not exist, no <i>FPIC*</i> required.
Non-Recognized Tribes	Rights accorded to such groups by federal, state, or <i>local*</i> government should be assessed against the proposed <i>management activities*</i> . If <i>legal*</i> rights exist, seek <i>FPIC*</i> to the degree legally required by the state, etc. If <i>legal*</i> rights do not exist, no <i>FPIC*</i> required.
Forest-dependent <i>Local Communities*</i>	Rights accorded to such groups by federal,

	state, or local government should be assessed against proposed FSC accreditation or management. If <i>legal*</i> rights exist, seek <i>FPIC*</i> to the degree legally required by the state, etc. If <i>legal*</i> rights do not exist, no <i>FPIC*</i> required.
<i>Traditional Peoples*</i> (potentially Appalachian Whites, Acadians (“Cajuns”), African American communities, Basque communities, Descendants of Original Spanish colonizers in the Southwest, etc.)	Rights accorded to such groups by federal, state, or local government should be assessed against proposed FSC accreditation or management. If <i>legal*</i> rights exist, seek <i>FPIC*</i> to the degree legally required by the state, etc. If <i>legal*</i> rights do not exist, no <i>FPIC*</i> required.

STEP 2. With the assistance of FSC US, identify representatives of the *Native American* Indigenous Peoples** or other groups identified; decide whom to contact and how to vet various contacts.

Step 2 Guidance:

- If neither the official governmental representatives of the group nor the group’s government structure can be determined, further investigation may be needed to determine the validity of the group as a potential *rights holder**. Once vetted, *engagement** is best conducted through *tribal** representatives.
- Federally and State-Recognized Tribes should have a *tribal** government in place that is democratically chosen and recognized by the federal or state government. Normally the contact person for the tribe is the Chair or President of the Tribal Council, and in all cases an attempt must be made to contact the Chair or someone in their office. However, the Chairperson’s office is typically overwhelmed with requests of all sorts, and often only the most urgent are answered. Practically speaking it is often efficacious to also contact someone in the cultural resource, forestry, or natural resource department of the tribe (see above guidance for *culturally appropriate** communication). It’s important that the *tribal** governmental structure be respected by making sure that the Chairperson’s office is informed about all communication, but this may be handled by *tribal** staff members once communication is established with them.
- Non-recognized *Native American* Indigenous Peoples** require more investigation and validation to determine, for instance, if any state or *local** governments acknowledge and validate the *tribal** designation, even if these groups aren’t formally recognized by state or federal governments. See the table following the Step 1 Guidance for further considerations about how to determine the validity of a potential *rights holder**.

STEP 3. Do the *Native American* Indigenous Peoples** claim *legal** and/or *customary rights**, or do other identified groups claim *legal** rights, within or near the *Management Unit** that could be affected by *management activities**?

- If No, no *FPIC** required but the group should be treated as an *interested stakeholder**.
- If Yes, inform the group of proposed *management activities**.

Step 3 Guidance:

- Contact with legally recognized tribes is best conducted through their *tribal** government offices, as described above. It is also helpful to make contact with staff managing *tribal**

resources (in addition to any “letters to the Chair”). If contact with a tribe by phone, email, or mail does not receive a response, attempt to make personal contacts and to build personal relationships with *tribal** staff or leaders before proceeding (see guidance for *culturally appropriate** communication above).

- As per FSC procedure, add any non-responsive group to the list of *interested stakeholders** and continue to advise them of proposed activities during stakeholder outreach. Even if non-responsive on the issue of *rights**, *Native American** *Indigenous Peoples** or other identified groups may identify issues or activities of particular concern and should be included in any outreach or *engagement** regarding these topics. As personnel and resources change, *Native American** *Indigenous Peoples** may choose to *engage** even if they have not in the past, thus even if there is no response initially, it is important to continue to include the group in outreach.

STEP 4. Verify claims of *legal** and *customary rights** by *Native American** *Indigenous Peoples** and other identified groups.

- If *legal** or *customary rights** are verified for a *Native American** *Indigenous Peoples**, or if *legal** rights are verified for another identified group, go to Step 5.
- If a *Native American** *Indigenous Peoples** or other identified group asserts its identity but no *rights** can be verified, or the *rights** claimed are verified to not exist, add them to the list of *interested stakeholders** and inform the group of such, but also inform them that only verified *rights** can be considered in terms of *FPIC** and decisions about certification or *management activities** that may affect *rights**.

Step 4 Guidance:

- Even if a *Native American** *Indigenous Peoples** does not hold any *legal** rights or *customary rights** they are still an important stakeholder.
- *Traditional People’s** groups and forest-dependent *local communities** must demonstrate *legal** rights to resources to be considered for *FPIC**. *Legal** rights can be identified and demonstrated through a title search and examination of historical rights to resources. The State Historic Preservation Office is often the most likely avenue to such research.

STEP 5. Does the *rights holder** wish to engage with *The Organization** regarding the proposed *management activity(ies)**?

- If No, no *FPIC** process at this time.
- If Not Now: a) determine why the *rights holders** are not willing to enter the process; and b) ensure that *management activities** will not violate verified *rights**. *The Organization** should consider approaching the group again if barriers can be overcome.
- If Yes, go to Step 6.

Step 5 Guidance:

- Typically, the intent to obtain *FPIC** is demonstrated through policy and procedures, work plans, and records of communication (or attempted communication) with *rights holders**, when an agreed-upon *FPIC** process is not (or not yet) in place.
- Even if the *rights holder** does not wish to *engage** in an *FPIC** process or ends their *engagement** in an *FPIC** process, it is the responsibility of *The Organization** to ensure that the *rights** in question are not violated as *management activities** are implemented.

- If the *rights holder** indicates a desire to *engage** with *The Organization** regarding the proposed *management activity(ies)**, the *management activity(ies)** may not be implemented without the *rights holder's** consent (or consent with conditions).

STEP 6. Through active and *culturally appropriate** *engagement**, collaboratively move toward a decision regarding the *management activity(ies)**.

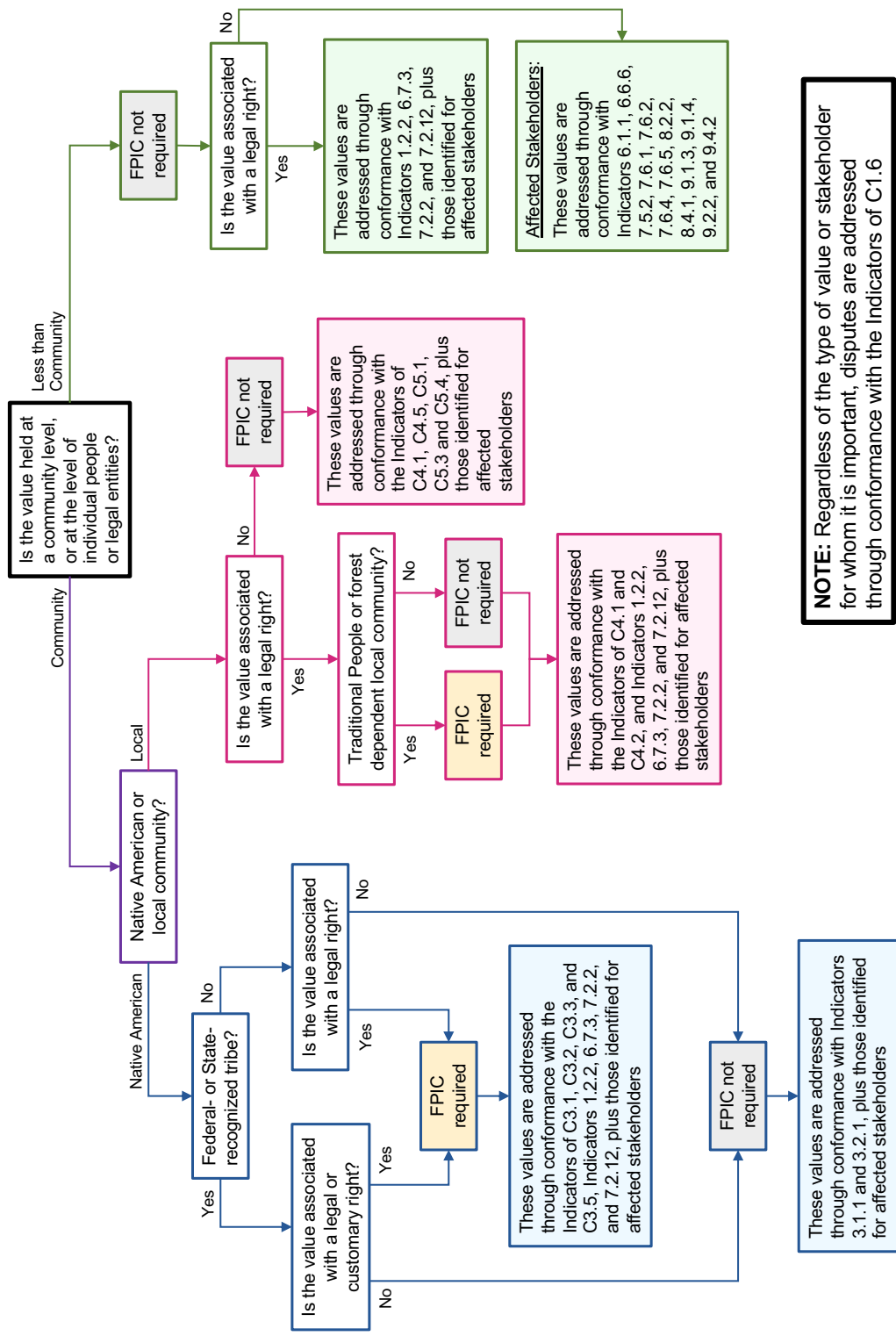
Step 6 Guidance:

- The final and distinguishing element of *FPIC** is the “consent” decision. It refers to the decision made by affected *rights holders** and reached through a process of dialogue, deliberation, and community decision-making (by consensus, majority, etc.). The decision involves saying yes, no, or not at this time to a proposed *management activity**. It may include options to apply conditions that, if met, would lead to consent being granted.
- Before beginning the *FPIC** process, certificate holders and *rights holders** may wish to clarify certain elements of the process, such as agreement on:
 - the scope of the *FPIC** process (i.e., which *rights** and *management activities** will be addressed)
 - preferred communication pathways
 - a decision-making format and the decision makers or individuals who will speak for the *rights holder**
 - a coarse timeline for completion
 - what conflict-resolving mechanisms will be used if needed
 - how consent (and any conditions) will be documented
 - what monitoring of the *management activity(ies)** will be implemented, and how the *rights holder** will be *engaged** in the monitoring
- When *FPIC** has not been obtained, it is the responsibility of *The Organization** to demonstrate their best efforts to support a *culturally appropriate** *engagement** process with affected *rights holders** that is advancing in *good faith** with the intent of reaching an agreement regarding the proposed *management activities**.

*FPIC** should be viewed as a process that results in a sustained relationship with the *rights holder** that does not end at the point that a decision regarding the *management activity(ies)** is made.

Figure 1. Decision Tree for When FPIC is Required

Addressing Social Values that May be Affected by Management Activities



NOTE: Regardless of the type of value or stakeholder for whom it is important, disputes are addressed through conformance with the Indicators of C1.6

ANNEX G: Representative Sample Area Methodology

Annex G provides guidance for conforming with Criterion 6.5, but is not normative.

The following guidance provides a methodology for identifying *Representative Sample Areas** (RSA) for *conservation** (i.e., maintaining or enhancing) or *restoration** of *viable** examples of *ecosystems** that would naturally occur within the *Management Unit**. If followed, this guidance will help to ensure conformance with Criterion 6.5. Documentation of the methodology used to establish *RSAs**, and its outcomes, is required per Indicator 6.5.6. If *The Organization** chooses to use a different methodology, documentation of rationale for the equivalency of that methodology will also be needed. Use of *Best Available Information** is required per Indicator 6.5.1 and is expected to be used for conformance with all Criterion 6.5 indicators.

Guidance specifically for *family forest* management units** is provided at the end of this Annex.

If the *Management Unit** extends into multiple USFS-defined ecological Sections (Cleland 2007, <https://www.fs.fed.us/research/publications/misc/73326-wo-gtr-76d-cleland2007.pdf>), completion of this methodology (or an equivalent) is recommended for each Section individually.

If *The Organization** is able to demonstrate that either of the following scenarios are true and occur within the same ecological section as the *Management Unit**, the associated *conservation** areas may be considered in combination with the *Management Unit** in Step 1 (*Management Unit* ecosystem* assessment*) and in Step 3 (*RSA* establishment*):

- a. *The Organization** intentionally scoped *conservation zones** or *protected areas** out of the FSC certificate, but continues to manage them primarily for *long-term* conservation** objectives and they are *permanently protected**; or
- b. *The Organization** intentionally transferred ownership of *conservation zones** or *protected areas** previously associated with the *Management Unit** with the purpose of *long-term* conservation** of those lands, and the lands are now *permanently protected**.

With the exception of the interpretation mentioned in the *family forest** guidance below, this is the only scenario in which *RSAs** may be established outside of the *Management Unit**. This exception is not applicable for federal *management units** or *management units* with more than 5% plantations**.

Notes on terminology:

- a. While an “ecosystem” as an ecological concept may be considered at many different scales, for the purposes of this guidance “ecosystem” is defined as “A dynamic complex of plant, animal, and micro-organism communities and their non-living environment interacting as a functional unit.” A given terrestrial *ecological system** will typically manifest itself in a landscape at intermediate geographic scales of tens to thousands of acres and persist for 50 or more years. Therefore, these units are intended to encompass common successional pathways for a given *landscape** setting. For the purposes of *Representative Sample Areas**, this scale of representation is a mid-level classification, roughly equivalent to the “Group” level in the National Vegetation Classification (<http://usnvc.org/explore-classification/>)
- b. “Restoration” does not require the creation of a particular pre-existing *ecosystem** when, based on *best available information**, this would be infeasible due to situations such as the following:

- i. Climate or other abiotic changes (e.g., hydrology, loss of substrate) have occurred that make it infeasible to *restore** a particular community type
- ii. Presence of an *invasive species**, pest, or disease that makes *restoration** infeasible
- iii. It is *economically infeasible** to *restore** that *ecosystem**
- iv. Successful *restoration** would require the collaboration of other/adjacent landowners who are unwilling to partner
- v. *Restoration** of a *viable** *ecosystem** is dependent on ecological functions that are not possible to *restore**, create, or mimic

NOTE: Regardless of the feasibility of *restoration** of a particular *ecosystem**, conformance with the Standard requires *The Organization** to take reasonable measures to mitigate and control ongoing, and prevent future, environmental degradation in the *Management Unit** that results from a previous owner's or *Organization's** activities.

- c. "Viable" or "viability" means that the critical components and functions of a dynamic, stochastic system at any time remain in a domain where the future existence of these components and functions is highly probable.
- d. "Permanent protection" refers to *protection** levels that are equivalent to *GAP Status** 1 and *GAP Status** 2, and sometimes *GAP Status** 3. Where *GAP Status** 3 lands are under management goals and *management activities** that support *conservation** and/or *restoration** of native *ecosystems**, these lands may be considered. For *GAP Status** 3, *The Organization** must demonstrate how the land is being protected to meet its *conservation** and/or *restoration** objectives at present and in the *long term**.

Step 1. Management Unit* Ecosystem* Assessment

Determine which native *ecosystems (forested and non-forested, rare and common) would typically occur within the *Management Unit** and that currently exist as *viable** examples or in a degraded condition.**

[Given the existing climate and soil conditions, identify which native *ecosystems** would typically occur within the *Management Unit**. It may help to begin by considering which occurred historically \(per Indicator 6.1.1\). Then identify within the *Management Unit** where these *ecosystems** occur as *viable** examples. If there are no *viable** examples, identify within the *Management Unit** where these *ecosystems** occur in a degraded condition but could be *restored** to a *viable** condition \(given the guidance on *restoration** in the "Notes on Terminology" above\).](#)

Step 2. Landscape* Ecosystem* Assessment

For each of the *ecosystems identified in Step 1 as *viable** examples or in degraded condition, gather information about the *ecosystem's** occurrences in the *landscape** within which the *Management Unit** exists.**

Note that the *Management Unit** itself is part of the *landscape** and therefore should be considered as part of this assessment. Information that will inform Step 3 includes:

- a. Whether or not any *viable** examples of the *ecosystem** currently occur within the *landscape** but outside of the *management unit**
- b. The percentage of the *viable** *ecosystem** examples that occur within the *landscape** that are permanently *protected**
- c. The percentage (estimated) of the historical extent of the *ecosystem** that currently remains within the *landscape**
- d. Whether there are any under-represented ecological conditions (e.g., *successional** stages, plant community types) for the *ecosystem**

Note: Links to example sources of *Best Available Information** are provided below.

Step 3. Representative Sample Area* Establishment

Within the *Management Unit, identify and delineate (i.e., map) *RSA** for *conserving** or *restoring** *viable** examples of *ecosystems** given the information gathered in Step 2.**

If *viable** examples of the native *ecosystems** identified in Step 1 exist, then *RSA** for those *ecosystems** are expected to be established and protected (per Indicator 6.5.2). If (a) *viable** examples of the native *ecosystems** identified in Step 1 do not exist, or Step 2 indicates that certain *ecosystems** are inadequately represented and/or protected in the *landscape**; and (b) Step 1 indicates that the *ecosystem** in question could be restored within the *Management Unit**, then *RSA** for those *ecosystems** are expected to be established and restored* (per Indicator 6.5.3). Note that for *ecosystems** that are inadequately represented and/or protected in the *landscape**, this can mean establishing *RSA** for both protection of existing *viable** examples and for *restoration** objectives.

With the exception of *family forest** *management units**, as described in the guidance below, all *management units** are expected to have at least one *RSA** designated. If multiple *ecosystems** were identified as having *viable** examples in Step 1, then at least one *RSA** per *ecosystem** is expected to be designated, unless the conditions of item (c) below apply (i.e., under, “Considerations for which ecosystems...”). If Step 1 and Step 2 together indicate that multiple *ecosystems** meet the conditions of Indicator 6.5.3, then at least one *RSA** per *ecosystem** is expected to be designated, unless the conditions of item (c) below apply. And if multiple *ecosystems** were assessed in Step 2, then multiple *RSA** are expected to be established. However, this is not intended to suggest that only one *RSA* per ecosystem will be adequate for conformance with the applicable indicators - further considerations are needed.

Most importantly, per Indicator 6.5.4, *Management Units** that are larger, that occur in *landscapes** with less *protection** for native *ecosystems** and/or less representation of native *ecosystems**, and/or that have more intensive management are expected to make greater contributions to *conservation** and/or *restoration** of native *ecosystems**.

Overall, within *The Organization’s** established *RSA**, the expectation is for a greater emphasis on *ecosystems** and ecological conditions that are in greater need of *conservation** assistance. This means emphasizing (i.e., larger examples and/or a greater number of examples) *ecosystems** and ecological conditions where the *Management Unit** may provide the greatest *conservation** value, even if this means smaller and/or fewer examples of other *ecosystems**.

Considerations for which ecosystems to emphasize if multiple potential *RSA** are identified for multiple *ecosystems**:

- a. *Ecosystems** with lower levels of *protection** in the *landscape** are expected to be emphasized over *ecosystems** with higher levels of *protection** in the *landscape**.

- b. *Ecosystems** with a smaller extent remaining in the *landscape** are expected to be emphasized over *ecosystems** with greater extent remaining in the *landscape**.
- c. Establishment of *RSA** for an *ecosystem** assessed in Step 2 is not essential if:
 - i. More than 25% of the examples within the *landscape** (including the *Management Unit**) are permanently *protected**; AND
 - ii. Excluding the *ecosystem** from *RSA** establishment will allow for greater *conservation** or *restoration** of less protected *ecosystems**, or of *ecosystems** with a smaller extent remaining in the *landscape**.

Considerations for each *RSA**:

- a. For *ecosystems** that have multiple ecological conditions (e.g., *successional** stages, plant community types), *RSAs** are expected to focus more on under-represented conditions.
- b. There is no set appropriate acreage for an *RSA**; the size may range from a few acres to hundreds of acres depending on the *ecosystem**. Generally, the size should be large enough to be *viable**.
- c. A single larger *RSA** is generally preferable to multiple smaller *RSAs**.
- d. For *ecosystems** that would naturally occur in mosaics, identifying *RSAs** that are adjacent to other *RSAs** is preferable to establishing *RSAs** in isolation.

Step 4. Representative Sample Area* Management

The primary purpose of an *RSA is to *conserve** (i.e., maintain or enhance) or *restore** a particular native *ecosystem**, as an ecological reference area.**

*RSAs** may also serve to *conserve** or *restore** an under-represented ecological condition, and/or serve as a set of *protected areas** or *refugia** for *species**, ecological communities, and community types not captured in other parts of this Standard (as identified in the definition of *RSA**). Management of *RSAs** to achieve all of these purposes may range from a more “hands-off” scenario to a more intensive management scenario (such as when *restoring** barrens or savanna), depending on the *ecosystem** and the characteristics of that *RSA**. Generally, activities that do not detract from the purpose(s) of the *RSA** are allowable.

When *management activities** (including timber harvest) create and maintain conditions that emulate a mature *forest** or other *successional** phases that may be under-represented in the *landscape**, the *management strategies** that created those conditions may be used to maintain them, and the area may be considered as a representative sample for the purposes of conformance with Criterion 6.5. *RSA** serving as ecological reference areas will generally not be managed for timber harvest, unless it is a necessary part of the conservation strategy to maintain or enhance the *ecosystem**. Threats such as wildfire, natural pests, or pathogens may also warrant *management activities** as a means to conserve the *ecosystem**.

Criterion 6.5 Guidance for *Family Forest* Management Units**

(Adapted from FSC-STD-30-005 V2-0, Box 5, addressing both *RSA** and the *Conservation Area Network**)

By default, each *management unit** should conform with Criterion 6.5 on its own. However, if this is not possible for *family forest* management units** individually and they are part of an FSC Forest Management Group, they can conform with the *RSA** and *Conservation Area Network** requirements across all the *family forest* management units** of the group. This means that, for example, there can be two *family forest* management units** with a higher percentage of area devoted for conservation, conforming with this requirement on behalf of all the *family forest* management units** in the group, provided that the area devoted to conservation meets or exceeds the cumulative area required for all *family forest* management units** of the group.

The non-*family forest* management units** of the group must individually conform with Criterion 6.5. However, they can increase the conservation area to account for the conservation areas of the *family forest* management units** of the group. This can be done together with some conservation areas in the *family forest* management units** of the group, or non-*family forest* management units** can also be the only ones with conservation areas, conforming with the requirement on behalf of all the *family forest* management units** of the group.

Therefore, *family forest* management units** that are part of an FSC Forest Management Group and that do not have *viable** examples of native *ecosystems** or in which these are insufficient can delegate conformance with Criterion 6.5 to other *family forest** or non-*family forest* management units** of the group. This exception should not be taken as a justification to harvest areas of native *ecosystems**, which should be protected as per the remaining *Criteria** under Principle 6.

Family forest management units** that are not part of an FSC Forest Management Group are expected to designate at least one *RSA** within the *management unit** to *conserve** native *ecosystems** that occur on the *Management Unit** or could be *restored** (per FF Indicator 6.5.2), and are also expected to conform with Indicator 6.5.7, regarding the *Conservation Areas Network**. The only exceptions to this expectation are the limited scenarios described at the beginning of this annex, and FSC Interpretation INT-STD-01-001_09 (see below), which applies to *management units** that are less than 124 acres (50 hectares) when additional criteria are met.

Decisions regarding what to establish as an *RSA** should be based on the results of Step 1 and the following considerations. Steps 2 and 3 in this Annex are out of scope for *family forest* management units**.

- a. *Ecosystems** that are less protected in the *landscape** should be prioritized over those with more protection.
- b. *Ecosystems** that are more rare in the *landscape** should be prioritized over those that are more common.
- c. For *ecosystems** that have multiple ecological conditions (e.g., *successional** stages, plant community types), examples with under-represented conditions should be prioritized over examples with better-represented conditions.

- d. There is no set appropriate acreage for an *RSA**; the size may range from a few acres to hundreds of acres depending on the *ecosystem**. Generally, the size should be large enough to be *viable**.
- e. A single larger *RSA** is generally preferable to multiple smaller *RSAs**.
- f. For *ecosystems** that would naturally occur in mosaics, identifying *RSAs** that are adjacent to other *RSAs** is preferable to establishing *RSAs** in isolation.

Sources of *Best Available Information**:

- a. Gap Analysis Project (GAP)
(online access via <https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap>)
- b. PAD-US, the Protected Areas Database
(online access via <https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap>)
- c. State Heritage Programs
find state-specific contact information online via
<https://www.natureserve.org/natureserve-network/directory#node-landing-page-directory-group-tabs-organizations>)
- d. NatureServe and NatureServe Explorer (online access via <https://www.natureserve.org>)
- e. Federal, State, Tribal, and local agencies, such as the following (among many others):
 - i. USFWS Environmental Conservation Online System (<https://ecos.fws.gov/ecp/>)
 - ii. USFS Forest Inventory and Analysis program (<https://www.fia.fs.fed.us>)
 - iii. USFS Regional Research Stations (<https://www.fs.fed.us/research/>)
 - iv. State Wildlife Action Plans (<https://www.fishwildlife.org/afwa-informs/state-wildlife-action-plans>)
 - v. Tribal natural resources departments
 - vi. State wildlife agencies
 - vii. Landscape Conservation Cooperatives (<https://lccnetwork.org>)
- f. Global, national, regional, state, and local conservation organizations, such as the following (among many others):
 - i. The Nature Conservancy, including state chapters (<https://www.nature.org/en-us/>)
 - ii. World Wildlife Fund (<https://www.worldwildlife.org>)
 - iii. National Wildlife Federation, including regional centers and state affiliates (<https://www.nwf.org>)
 - iv. Regional and local land conservancies (<https://www.landtrustalliance.org>)
 - v. Conservation Districts (<https://www.nacdnet.org>)
- g. Regional planning efforts (e.g., watershed planning organizations/coalitions)
- h. Universities

Relevant Interpretation:

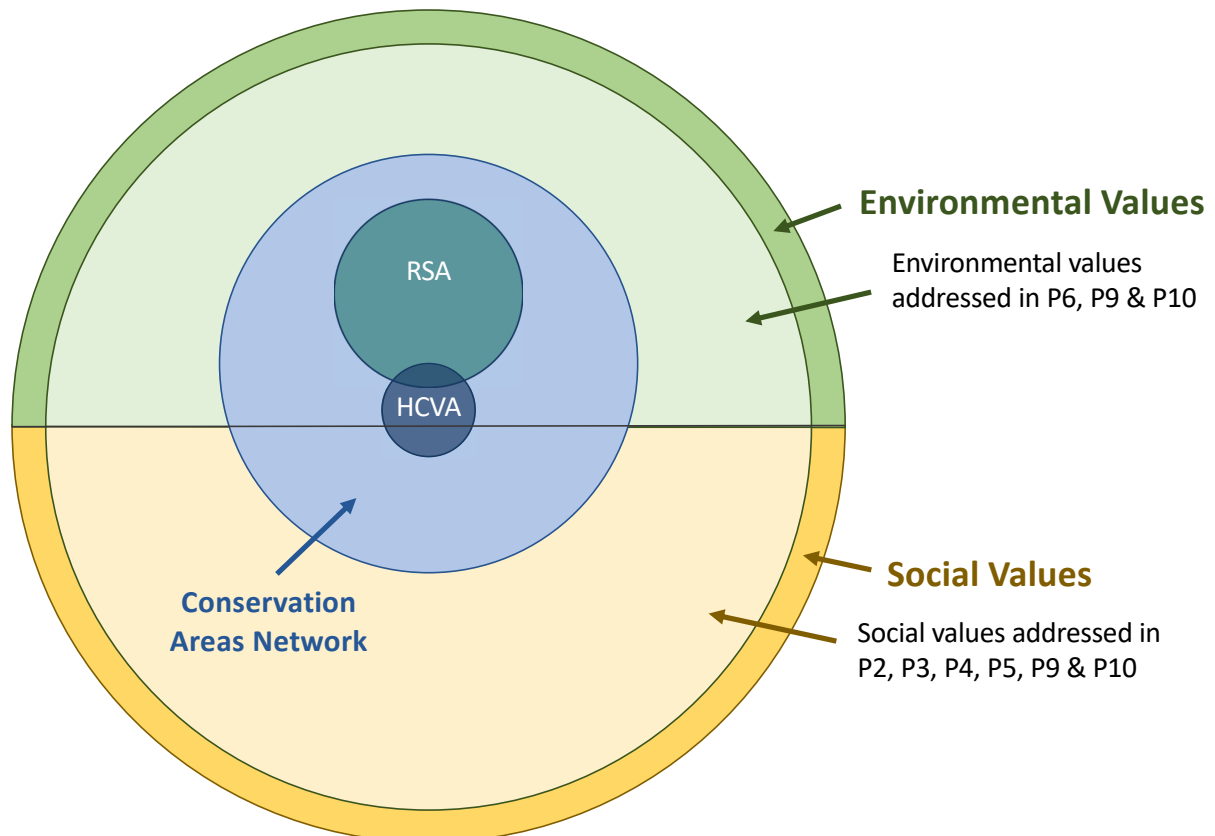
Code	INT-STD-01-001_09 (See also INT-STD-20-007_45)
Requirement (s)	FSC Principles and Criteria for Forest Stewardship V5-2, Criterion 6.5
Publication date	03. June 2015; amended on 14. March 2016; clarification note added on 14. July 2017; wording in question a) modified on 24. January 2018, replacing 'Management Unit' by 'the group' to clarify the original intent of the interpretation; Update on 23. July 2020 to add the question and answer on forest landscape and to remove the reference to P&C V4.
<p>a) Can a SLIMF owner or group scheme meet set-aside requirements outside the group?</p> <p>b) If so, does a SLIMF owner or group scheme providing financial and other assistance to existing conservation areas within the forest landscape, constitute compliance with criterion 6.4?</p> <p>c) How is the forest landscape defined?</p> <p>a) Yes, if there are insufficient or no representative samples areas within the Management Unit (MU), and under the following conditions:</p> <ul style="list-style-type: none"> • The MU is smaller than 50 ha; • The Organization shall identify rare and threatened species and their habitats in the MU. When they exist although are insufficient in size, measures for their survival and viability shall be identified and put in place. • The outside area is in the same forest landscape. • Sites to be conserved outside of the MU are representative samples of existing ecosystems. • The outside area is not commercially harvested and is under a legal protection status, OR there is a binding contract between the Organization and the owner of the outside area to: <ul style="list-style-type: none"> ○ Protect the area in its natural stage; ○ Mark the boundaries of the area in the field and on maps; ○ Allow certification bodies to access area for inspection. <p>b) Financial assistance alone does not constitute compliance with the requirements of criterion 6.5. Some conservation efforts have to be demonstrated within the MU. Other examples of conservation efforts may be presented to PSU for evaluation on a case by case basis.</p> <p>c) For the purpose of this interpretation, the forest landscape is defined as the quaternary water catchment area. If defining the boundaries of a quaternary water catchment area is not feasible, other delineations for defining the forest landscape may be used, based on vegetation zones or other biophysical characteristics reflecting the natural conditions in the country.</p>	

Note: This interpretation does not eliminate the option for SLIMF owners to meet the requirement of min. 10% Conservation Area Network at the level of the group entity within a group certification (see: FSC-STD-20-007, clause 5.3.6).

ANNEX H: Conservation Areas Network

The *Conservation Areas Network** (CAN) is a new concept first identified in the International Generic Indicators (IGIs; FSC-STD-60-004) for FSC Principles and Criteria Version 5 (P&C V5). The CAN* is in response to a global FSC decision that more *forests** and natural areas need to be *conserved**. Generally, the CAN* is a set of areas within *The Organization's** *Management Unit** that are intended primarily to *conserve** environmental or *cultural** values for the *long term**, (i.e., they are specifically designated for achieving objectives other than timber production). The CAN* does not require additional *conservation** outcomes so much as it puts together a complete picture of *conservation**-oriented objectives, composed of various *conservation zones** and/or *protected areas** recognized and required by specific elements of the Standard. However, per Indicator 6.5.7, the CAN* is to comprise at minimum 10% of the *Management Unit** and therefore *The Organization** will need to establish additional areas if below this minimum threshold. While termed a “network,” the areas that make up the CAN* do not need to be spatially connected. [Guidance specifically for family forest* management units* is provided at the end of this Annex.](#)

Environmental and Social Values that Occur within the Management Unit & Areas Designated to Conserve Them



The scale of the 10% threshold in Indicator 6.5.7 is the *management unit**. If there are multiple sites that together compose the *management unit** then the 10% may be achieved across these sites.

A single section of the *management plan** should identify areas designated as part of the *CAN** or provide reference(s) to the part(s) of the *management plan** where they are identified.

Table 1 identifies examples of areas that may be identified to address other parts of the standard, and that may also be designated as part of the *CAN**. Unlisted areas may be included in the *CAN** if aligned with the *CAN** definition; determination of alignment will be the responsibility of the *Certification Body**. Conservation easements, Habitat Conservation Plan areas, Cooperative Management Areas with federal or state agencies or conservation organizations may also be included in the *CAN** if intent and purpose are aligned. Areas where the intent is to provide for or support *culturally**-oriented recreational activities may be included in the *CAN**, but this does not mean that all recreational areas may be included. The *CAN** may include both forested (commercial and non-commercial) and non-forested areas (e.g., grasslands, wetlands) of the *management unit**. However, the *CAN** may not disproportionately represent non-forested areas, based on overall representation within the *management unit**.

If *The Organization** is able to demonstrate either of the following scenarios are true, the associated *conservation** areas may be considered in combination with the *Management Unit** for the purpose of designating areas to be part of the *CAN**.

- a. *The Organization** intentionally scoped *conservation zones** or *protected areas** out of the FSC certificate because they were already adequately protected; or
- b. *The Organization** intentionally transferred ownership of *conservation zones** or *protected areas** previously associated with the *Management Unit** with the purpose of *long-term** *conservation** of those lands.

The acreage of the scoped-out or transferred lands must also be added to the acreage of the *Management Unit** for the calculation of what is needed to achieve the minimum 10% requirement per Indicator 6.5.7. This exception is not applicable for federal *management units** or *management units** with more than 5% *plantations**.

Management within the Conservation Area Network

*Management activities** may occur within the *CAN** when they maintain or enhance the conditions and values for which the area is recognized as contributing to the *CAN**. For example, threats such as wildfire, natural pests, or pathogens may warrant *management activities** as a means to conserve the *conservation zone** or *protected area**.

Definitions:

Conservation/Protection: These words are used interchangeably when referring to *management activities** designed to maintain the identified environmental or cultural values in existence *long-term**. *Management activities** may range from zero or minimal interventions to a specified range of appropriate interventions and activities designed to maintain, or compatible with maintaining, these identified values.

Conservation Areas Network: Those portions of the *Management Unit** for which *conservation** is the primary and, in some circumstances, exclusive objective; such areas include *Representative Sample Areas**, *conservation zones**, *protection areas**, *connectivity** areas, and *High Conservation Value Areas**.

Conservation Zone: Areas designated within which maintenance and/or *restoration** of such *species** and community type(s) are the highest priority. Harvesting timber, other *management activities**, and other uses are allowed within *conservation zones** if they do not detract from maintenance or enhancement of the *species** or community type(s).

Cultural: Relating to customary beliefs, social forms, and material traits of a racial, religious, or social group, which are passed down from generation to generation.

Protected Areas: A portion of the forest of special biological, cultural, or historical significance that is designated, mapped, and managed principally to *protect** its biological, cultural, or historic attributes. Only *management activities** (including logging) implemented to achieve ecological improvements are allowed in *protected areas**.

Table 1. Summary of potential *Conservation Areas Network** inclusions based on the FSC US National Forest Stewardship Standard (V2-0). This list provides examples and is not exhaustive of potential applicable areas that can contribute to the *CAN**.

Conservation Areas Network* Inclusions	Criterion*/Indicator*
Areas managed primarily to <i>conserve</i> * <i>rights</i> * held by others	C1.2
Areas managed primarily to <i>conserve</i> * <i>rights</i> * held by <i>Native American</i> * groups	C3.2
Areas managed primarily to <i>conserve</i> * sites of significance for <i>Native American</i> * groups	C3.5
Areas managed primarily to <i>conserve</i> * <i>rights</i> * held by <i>local communities</i> *	C4.2
Areas managed primarily to <i>conserve</i> * sites of significance for <i>local communities</i> *	C4.7
Areas managed primarily to avoid negative cultural impacts on <i>local communities</i> *	C4.5
Areas managed primarily to <i>conserve</i> * <i>ecosystem services</i> *	C5.1 & C6.3
Areas managed primarily to prevent negative impacts of <i>management activities</i> * on environmental values and thereby <i>conserve</i> * those values	C6.3
Areas managed primarily to <i>protect</i> * <i>rare, threatened and endangered species</i> * and their <i>habitats</i> *	C6.4
Areas established as <i>Representative Sample Areas (RSAs)</i> *, including both <i>RSAs</i> * with <i>conservation</i> * and with <i>restoration</i> * objectives	C6.5
Areas managed primarily to <i>conserve</i> * rare ecological communities	Indicator 6.6.7
Areas managed primarily to <i>protect</i> * natural watercourses, <i>water bodies</i> * and <i>riparian areas</i> * NOTE: Following FSC Interpretation INT-STD-60-004_01, riparian zones "created" or planted for purely functional roles (e.g., <i>erosion</i> * control) should be excluded from the <i>CAN</i> *. In a US context, this exclusion will likely be limited and would only apply to <i>RMZs</i> * that are not concurrently being managed for <i>conservation</i> * of <i>riparian areas</i> * or ecological <i>connectivity</i> *	C6.7

etc. (e.g., created <i>erosion</i> * control <i>buffers</i> * established in land reclamation areas previously used for strip mining).	
Areas managed primarily to <i>conserve</i> * ecological <i>connectivity</i> *	C6.4 & C6.7
Areas managed primarily to <i>restore</i> * under-represented <i>species</i> * or <i>successional</i> * stages	C6.8
Areas managed primarily to <i>conserve</i> * <i>old growth</i> *	Indicator 6.8.2
Areas managed primarily for monitoring and/or research that supports <i>conservation</i> * of environmental and cultural values	P8
Areas identified as <i>High Conservation Value Areas</i> *	P9

Criterion 6.5 Guidance for *Family Forest** *Management Units**

(Adapted from FSC-STD-30-005 V2-0, Box 5, addressing both *RSA** and the *Conservation Area Network**)

By default, each *management unit** should conform with Criterion 6.5 on its own, in alignment with the above guidance and the *family forest** guidance for *Representative Sample Areas** in Annex G. However, if this is not possible for *family forest** management units* individually and they are part of an FSC Forest Management Group, they can conform with the *RSA** and *Conservation Area Network** requirements across all the *family forest** management units* of the group. This means that, for example, there can be two *family forest** management units* with a higher percentage of area devoted for conservation, conforming with this requirement on behalf of all the *family forest** management units* in the group, provided that the area devoted to conservation meets or exceeds the cumulative area required for all *family forest** management units* of the group.

The non-*family forest** management units* of the group must individually conform with Criterion 6.5. However, they can increase the conservation area to account for the conservation areas of the *family forest** management units* of the group. This can be done together with some conservation areas in the *family forest** management units* of the group, or non-*family forest** management units* can also be the only ones with conservation areas, conforming with the requirement on behalf of all the *family forest** management units* of the group.

*Family forest** management units* that are not part of an FSC Forest Management Group are expected to conform with Indicator 6.5.7 regarding the *Conservation Areas Network** within the *management unit**, unless the either of the scenarios described earlier in this annex apply. Additionally, *Representative Sample Areas** that are established outside of the *management unit** (see Annex G) may be considered.

ANNEX I: Plantation vs. Natural and Semi-Natural Forest

Background

FSC supports the responsible management of existing *plantations** and the products derived from harvesting activities in these areas as a strategy to complement *conservation** and the sustainable use of native *forests**. As global consumption of *forest** products continues to grow, responsibly managed *plantations** certified by FSC can play a crucial role in ensuring their supply is sustainably sourced. While *plantations** cannot replace the richness, stability, and beauty of native *forests** or the complexity of the services they provide, applying the FSC standards to them ensures their management is defined by transparency and fairness, and minimizes negative environmental and social effects. Since 1994, FSC has prohibited *conversions** of *natural forests** and *semi-natural forests** to *plantation**. Therefore, any *plantations** converted in this way after 1994 are ineligible for FSC certification (with very limited exceptions, as indicated per Criterion 6.10).

Purpose of Annex

This annex represents an update of the Plantation Classification guidance provided in the 2010 FSC US Forest Management Standard (Appendix G). It is not the intention of this update to change how *plantations** are defined in the US, nor to move the threshold between *plantation** and *semi-natural forest**. The purpose of the update is to provide greater assistance and greater clarity for *The Organization** and *Certification Bodies** as questions arise regarding FSC-certified lands, or lands being assessed for certification.

It is not the expectation that existing FSC-certified *Management Units** will be re-evaluated for *plantations** based on this new guidance. It is also not expected that once a *forest** is determined to be *plantation** or *natural forest*/semi-natural forest** that it will be reviewed again, unless there is a significant change in *management objectives** or *management activities**.

Guidance on the Classification of *Plantations**

The presence of most of the principal characteristics and key elements of native *forest* ecosystems** is primary to discerning *natural forests** or *semi-natural forests** from *plantations**. Therefore, a "planted *forest**" is not necessarily a "*plantation**" since it may have most of the principal characteristics and key elements of native *forest* ecosystems** endemic to an area. Additionally, given that the *intensity** of *management activities** may influence the presence of these characteristics/elements, classification of a *forest** as a *plantation** should be based on the presence or absence of these characteristics/elements.

As stated in the "plantation" definition, there are three situations which, except for highly extenuating circumstances, will always indicate that the *forest** in question is a *plantation**. In all other cases, a *forest**, unless severely degraded, is determined to be either a *natural forest** or *semi-natural forest**, or a *plantation**. This determination is made by evaluating the degree to which it provides the principal characteristics and key elements of native *forest* ecosystems**, as compared to a natural *stand** of similar *forest** type and *successional** stage. If a particular *forest** does NOT hold these attributes, then it must also be clear that the absence of the attributes is a result of *silvicultural** treatments for it to be determined to be a *plantation**. Absence of these attributes could also be due to pests/disease, *catastrophic natural*

*disturbances**, or other situations out of the control of *The Organization**. *Silvicultural** treatments that could contribute to the absence of native *forest* ecosystem** attributes (and therefore to the characterization of a *stand** as a *plantation**) are listed later in this annex under the section “Management Practices Related to *Plantations**.”

Therefore, a *plantation is identified when a *stand** does not provide most of the principal characteristics and key elements of native *forest* ecosystems** relative to a *natural forest* stand** AND it is clear that the absence of these attributes is a result of *silvicultural** treatments, such as those *plantation** management practices listed below.**

Since almost all of the noted characteristics/elements are very difficult to measure directly, especially in the short time frame of an audit, *The Organization** and *Certification Bodies** must use professional judgment to evaluate sites for these characteristics/elements as well as keep abreast of research that is designed to specifically measure the effects of various *silvicultural** treatments on them.

Pertinent definitions

Plantation: A *forest** area established by planting or sowing with using either *native species** or *non-native species**, often with one or few *species**, regular spacing, and even ages, and which lacks most of the principal characteristics and key elements of native *forest* ecosystems**. The use of establishment or subsequent management practices in planted *forest* stands** that perpetuate the *stand**-level absence of most principle characteristics and key elements of native *forest* ecosystems** will result in a *stand** being classified as a *plantation**. Except for highly extenuating circumstances the following are classified as *plantations**:

- cultivation of *non-native species** or recognized non-native sub-species, except when used in conformance with Indicator 10.2.2;
- block plantings of cloned trees resulting in a major reduction of within-*stand** genetic diversity compared to what would be found in a natural *stand** of the same *species**; and
- cultivation of any tree *species** in areas that were naturally non-forested *ecosystems**.

Semi-natural forest: A *forest* ecosystem** with many of the characteristics of native *ecosystems** present. *Semi-natural forests** exhibit a history of human disturbance (e.g., harvesting or other *silvicultural** activities). *Semi-natural forests** are very common in the United States, and include a considerable amount of unmanaged, as well as most of the managed, *forest** land that is not classified as *plantation**.

Natural Forest: *Natural forests** include *old growth** and *primary forests** as well as managed *forests** where most of the principal characteristics and key elements of native *ecosystems** such as complexity, structure, wildlife, and *biological diversity** are present.

Principal Characteristics and Key Elements of Native *Forest* Ecosystems**

The term “principal characteristics and key elements of native *forest* ecosystems**” refers to the suite of characteristics that are typically found in *natural forests** and *semi-natural forests**, but not in *plantations** (as defined in this Standard). These characteristics/elements will differ by *forest** type, *successional** stage, and the past management history of the site. Note that some of these characteristics/elements are not seen until the mid-development (understory re-initiation) stage, given allowances for historic range of natural variation.

Assessment of the presence or absence of the principal characteristics and key elements of native *forest* ecosystems** should be done at the *stand** level, focusing on a representative sample of *stands** of varying stages of *succession** within the *Management Unit**. The degree of presence or absence of the characteristics/elements in the sampled *stands** should be assessed relative to a *natural forest* stand** of the same *forest* type*, *succession* stage*, and site class. Some factors need to be assessed at the *Management Unit** spatial scale*. There may be exceptions when the particular characteristic/element is not possible due to the size of the *Management Unit**.

The following provides attributes and practices that are associated with each of the five 'principal characteristics and key elements of native *forest* ecosystems** (PCKE) to be assessed, along with guidance for determining if the characteristic/element is effectively present. If all five of the characteristics/elements are present, then the *stands** in question are *natural forest** or *semi-natural forest** and not *plantation**. If all five are not present, then the cause for their absence must be determined before making a final determination. If due to *silvicultural** treatments (such as those provided in the next section below), then the stands are *plantations**; if due to other reasons, then the stands may still be classified as *natural** or *semi-natural forest**, or it may be determined that the stand is a severely degraded *forest** that does not meet the definition of *semi-natural forest**.

1. PCKE: Within-Stand* Species* Diversity

If three (3) of the following practices and/or attributes are present, this PCKE may be considered present.

- a. *Species* Diversity*: Monoculture is avoided in planting, thinning, or other *management activities** in *forest** areas where single-species* *forest* stands** are not found naturally. Multiple *species** are maintained as the primary *forest* type* on sites normally occupied by multiple-species* *forests**. Number of tree *species**, and their relative distribution, is similar to what would be found in a *natural stand** of the same *forest* type* and of the same *successional* stage*.
- b. *Native Species**: *Natural forests** are composed of *native species**. Regardless of the number of tree *species** present, a *natural forest** is characterized by a predominance of *species** that are naturally occurring on the site, and a corresponding absence or scarcity of non-*native species**.
- c. *Relative Species* Composition*: *Silvicultural** systems purposefully result in *stands** with dominant tree *species** consistent with dominant *species** associated with *natural forest* ecosystems** occurring on similar sites with a similar *successional* stage*.
- d. *Silvicultural** systems maintain or achieve tree *species** composition (relative abundance of *species**) consistent with the corresponding *natural forest* types* occurring on similar sites.
- e. Understory *plant community* species** richness, abundance, and distribution are similar to what would be found in a *natural stand** of the same stage of *stand* succession** and on a similar site.

2. PCKE: Within-Stand* Structural Diversity*

If four (4) of the following practices and/or attributes are present, this PCKE may be considered present.

- a. Variability in tree density and age of trees is similar to what would be found in *natural stands** of the same *successional* stage* and site class.

- b. The physical characteristics (i.e., size and shape) of trees are similar to *natural forest** conditions of the same *successional** stage and site class.
- c. Understory plant community structure and density is similar to natural *stand** conditions of the same *successional** stage and site class.
- d. Size and distribution of *snags**, den trees, and downed, coarse, and fine *woody debris** are consistent with the stage of *stand* succession** and disturbance regimes for native *forest** types occurring on similar sites.
- e. *Stands** contain small patch openings (e.g., occupied by meadows, vernal pools, non-commercial trees, *wetlands**), that provide *structural diversity** consistent with native *forest** types occurring on similar sites.
- f. *Even-aged silviculture** is only employed on *forest** types that typically or regularly regenerate as even-aged *stands** naturally through *stand*-replacing events*.
- g. *Stand** management regimes provide for tree *retention**, and are characteristic of *natural disturbance regimes** referred to in Criterion 6.3.

3. PCKE: Natural Ecological Succession*

If three (3) of the following practices and/or attributes are present, this PCKE may be considered present.

- a. *Stand** management regimes allow for natural *successional** pathways.
- b. *Stands** are managed at least to the understory tree re-initiation stage prior to the *regeneration (final) harvest**, unless early harvest is being implemented for the purposes of achieving PCKE 4.
- c. *Stand** management precludes reliance upon systematic intensive use of *chemical pesticides** and/or *fertilizers** to achieve *management objectives**.
- d. *Stand** management regimes exclude intensive mechanical site preparation.

4. PCKE: Landscape* Level Diversity

If one (1) of the following practices and/or attributes is present, this PCKE may be considered present.

- a. *Stands** (including planted *stands**) within the *Management Unit** collectively provide diversity in the stages of *succession** between *stands** ranging from the *stand** initiation stage to at least the understory re-initiation stage.
- b. Representative variation in the *intensity** and *scale** of *silvicultural** practices is consistent with disturbances in native *forest** types on similar sites (e.g., fire, windthrow, disease, insects)

5. PCKE: Genetic Diversity

If one (1) of the following practices and/or attributes is present, this PCKE may be considered present.

- a. *Native species** suited to the site are selected for planting. A *reasonable** investment is made to source *local** seeds of known provenance for planting stock. The use of non-local seed sources is justified.
- b. *Non-native species** are only used when ecologically beneficial and on a limited *scale**. In the context of non-SLIMF *Management Units**, “limited” is consistent with a “very limited portion” as defined in the glossary.

Collectively, these characteristics are considered definitive for native *forest* ecosystems** throughout the US. However, the quantitative representations of each of these characteristics on a given site exist along a spatial and temporal continuum ranging from abundant to

marginally present depending on the *forest** type, stage of *succession**, the range of natural variation associated with the *forest** type, and the past management history.

Examples of silvicultural practices that could contribute to the absence of native *forest** *ecosystem** attributes (PKE) and result in characterization of a *stand** as a *plantation** include:

- a. Alteration of site hydrology or *soil** structure to establish tree *species** that would not establish in the absence of this alteration (e.g., deep *soil** disturbance during site preparation such as bedding, ripping, and other alterations of site hydrology or *soil** structure). This does not include *restoration** activities
- b. Application of *fertilizers** more than one time during a single rotation
- c. Systematic use of, and reliance on, *chemical pesticides** except when used for the control of *invasive species**, or when repeated applications are necessary due to ineffective application
- d. *Silvicultural** practices that result in less than 50% of naturally occurring tree *species** maintained (or recruited and maintained) and well-distributed throughout the *stand**
- e. *Silvicultural** practices that purposefully exclude dominant tree *species** representative of *native ecosystems** historically occurring on the site
- f. A single tree *species** is maintained as the primary *forest** type on sites normally occupied by multiple-*species* forests**
- g. *Silvicultural** practices that purposely eliminate native understory *species** prior to crown closure or commercial harvest
- h. Use of non-native tree *species** for regeneration
- i. Cultivation of trees, of any *species**, in areas that were naturally non-forested (where trees otherwise would not exist)
- j. Monoculture plantings of cloned trees that result in significant reductions of within-*stand** genetic diversity relative to *natural forest** conditions
- k. Rotation lengths short enough to prevent *stands** from development into understory reinitiation stages

Annex J: Monitoring Impacts on Social Values and Environmental Condition

Indicators 6.6.4, 9.4.1, 10.2.2, 10.3.2, 10.7.5, and 10.8.1, and Federal Lands Supplementary Requirements for Indicators 6.7.9, 8.2.1, and 10.9.1, explicitly require monitoring and therefore must be addressed in the monitoring protocol. While the other elements of this annex are not explicitly required in any *Indicator**, monitoring at some level (for applicable elements) will most likely be needed for conformance with and/or demonstration of conformance with the rest of the Standard. Therefore, this annex provides a structure to assist *The Organization** with developing its monitoring protocol per Indicator 8.2.1.

The frequency, scale, and *intensity** of monitoring will be unique to the *Management Unit** due to its unique context and activities. The *scale**, *intensity**, and risk of *management activities** that occur within the *Management Unit** will affect the level of monitoring needed for any particular element. However, some level of monitoring will most likely be needed for all applicable elements. Non-applicable elements are those associated with an activity or value that does not occur on the *Management Unit**, and/or values that occur outside of the *Management Unit** that are not affected by activities occurring on the *Management Unit**.

- 1) Monitoring per Indicator 8.2.1 is sufficient to identify and describe social impacts of *management activities**, including, where applicable:
 - i. Evidence of illegal or unauthorized activities (Criterion 1.4) and compliance with *applicable laws**, *local laws**, *ratified** international conventions, and *obligatory codes of practice** (Criterion 1.5);
 - ii. Outcomes of *disputes** (Criterion 1.6, Criterion 2.6, Criterion 4.6);
 - iii. Programs and activities regarding *workers*** rights (Criterion 2.1), occupational health and safety (Criterion 2.3), payment of wages (Criterion 2.4), and *workers*** training (Criterion 2.5);
 - iv. *Gender equality**, sexual harassment, and gender *discrimination** (Criterion 2.2);
 - v. When *pesticides** are used, the health of *workers** exposed to *pesticides**, consistent with *The Organization's** Environmental and Social Risk Assessments for the *pesticides** used (Criterion 2.5 and Criterion 10.7);
 - vi. Identification of *Native American** groups and *local communities** that hold *rights** applicable to the *Management Unit** (Criterion 3.1 and Criterion 4.1), engagement with *rights holders** to achieve consent for *management activities** that affect their *rights** (Criterion 3.2 and Criterion* 4.2), and relations with (Criterion 3.2, Criterion 3.3 and Criterion 4.2) *Native American** groups and/or *local communities**;
 - vii. *Protection** of sites of special cultural, ecological, economic, religious, or spiritual significance to *Native American** groups and *local communities** (Criterion 3.5 and Criterion 4.7), and persistence of areas of special significance and associated values of significance to *Native American** groups (Criterion 3.1 and Criterion 3.5);
 - viii. Use of *traditional knowledge** and *intellectual property** (Criterion 3.6);
 - ix. *Local** economic and social development (Criterion 4.2, Criterion 4.3, Criterion 4.4, Criterion 4.5) and use of *local** processing, *local** services, and *local** value-added manufacturing (Criterion 5.4);
 - x. Production of diversified benefits and/or products (Criterion 5.1), including an inventory system that documents: a) *species**, b) volumes, c) stocking, d)

- regeneration, e) *stand** and *forest** composition and structure, and f) timber quality;
 - xi. Actual vs. projected annual harvests of timber and *non-timber forest products** (Criterion 5.2) and *long-term* economic viability** (Criterion 5.5); and
 - xii. Maintenance and/or enhancement of *ecosystem services** (Criterion 5.1) and *High Conservation Values** 5 and 6 (identified in Criterion 9.1).
 - xiii. Specifically for federal land *management units** (Criterion 8.2):
 - a. provision of forest*-related employment and contracting opportunities (see also Indicator 7.2.12)
 - b. indices of contractor and subcontractor compliance with applicable labor laws, and
 - c. managed public access to, and use of, the forest* for recreation and other permitted activities
- 2) Monitoring per Indicator 8.2.1 is sufficient to identify and describe the environmental impacts of *management activities**, including, where applicable:
- i. Results of regeneration activities (Criterion 10.1) and *silvicultural** activities (Criterion 10.5);
 - ii. Use of ecologically well-adapted *species** and *non-native species** for regeneration (Criterion 10.2), and any adverse impacts associated with the use of *non-native species** (for regeneration or other purposes) including, when applicable, impacts outside the *Management Unit** resulting from use of *non-native species** within the *Management Unit** (Criterion 10.3);
 - iii. Confirmation that *genetically modified organisms** are not being used (Criterion 10.4);
 - iv. Impacts from use of *fertilizers** (Criterion 10.6), *pesticides** (Criterion 10.7), and/or *biological control agents** (Criterion 10.8);
 - v. Impacts of infrastructural development, transport activities, and *silviculture** on *rare, threatened and endangered species**, *habitats**, *ecosystems**, *landscape values**, water, and *soils** (Criterion 6.7 and Criterion 10.10);
 - vi. Impacts of harvesting and extraction of timber on *non-timber forest products**, environmental values identified per Indicator 6.1.1, merchantable wood waste, and other products and services (Criterion 10.11); and
 - vii. Environmentally appropriate disposal of *waste materials** (Criterion 10.12).
 - viii. Specifically for federal land *management units**:
 - a. Impacts from grazing of livestock. (Criterion 6.7)
 - b. Efficacy of the *riparian management zone**. (Criterion 8.2)
 - c. Impacts from fire and fire suppression (Criterion 10.9)
- 3) Monitoring per Indicator 8.2.1 is sufficient to identify and describe changes in environmental conditions, including, where applicable:
- i. Environmental values, ecosystem functions and *ecosystem services** identified per Indicator 6.1.1, including carbon sequestration and storage (Criterion 6.1) and including the effectiveness of actions identified and implemented to prevent,

- mitigate, and repair negative impacts to these environmental values (Criterion 6.3);
- ii. *Rare, threatened, and endangered species** and their *habitats** (Criterion 6.4), *representative sample areas** and components of the *conservation areas network** (Criterion 6.5), naturally occurring *native species**, their *habitats** and *biological diversity** (Criterion 6.6), water courses, *water bodies**, water quantity and water quality (Criterion 6.7), and the effectiveness of actions implemented to *conserve** and/or *restore** these values;
 - iii. *Landscape values** (Criterion 6.8) and *High Conservation Values** 1 to 4 (identified in Criterion 9.1) and the effectiveness of actions implemented to maintain and/or *restore** them;
 - iv. Conversion of *natural forest** or *semi-natural forest** to *plantations** or to *non-forest** (Criterion 6.9) and the status of *plantations** established after 1994 (Criterion 6.10);
 - v. Location, presence, and abundance of *invasive species** and the effectiveness of actions implemented to address them (Criterion 6.6); and
 - vi. Occurrence and impacts from *natural hazards** (Criterion 10.9) and any other significant, unanticipated removal or loss or increased vulnerability of *forest** resources, including, at a minimum, documentation of quantitative and qualitative information regarding: a) date and location of occurrence, b) description of disturbance, and c) extent and severity of loss.

Annex K: High Conservation Value Framework

Preface

The Forest Stewardship Council® (FSC) Principles and Criteria for Forest Stewardship (P&C; FSC-STD-01-001) give special attention to biological, ecological, social, or cultural values of outstanding significance. These values, referred to as *High Conservation Values (HCV)**, and the areas needed for their existence and maintenance, are subject to the requirements of Principle 9 of the P&C.

Many of the resources that receive *HCV** designation, such as concentrations of rare *species**, are also addressed under Principle 6, *Environmental Values and Impacts*, of the P&C. The challenge for landowners seeking FSC certification is distinguishing between those resources that are adequately covered under Principle 6 (or other Principles) from those that rise to the level of needing to be considered under Principle 9.

As part of the FSC's standards development process, FSC-US is required to periodically update the FSC US National Forest Stewardship Standard (NFSS). The High Conservation Value Framework must also be updated as part of the revision process, consistent with the current P&C, International Generic Indicators (FSC-STD-60-004), and FSC's *Guidance for Standards Development Groups: Developing National High Conservation Value Frameworks* (FSC-GUI-60-009). The scope of this Framework is the conterminous United States (i.e., excluding Alaska, Hawaii and US Territories).

Annex Table of Contents

<u>Annex K: High Conservation Value Framework</u>	209
<u>Preface</u>	209
<u>1. Introduction</u>	211
<u>2. Terminology</u>	212
<u>3. Information and Data Sources</u>	214
<u>3.a. Overarching Best Available Information</u>	214
<u>3.b. Documenting HCV Assessments</u>	216
<u>3.c. Culturally Appropriate Stakeholder Consultation</u>	217
<u>3.d. When New Information Becomes Available</u>	217
<u>4. HCV Identification & Assessments</u>	217
<u>4.a. National HCV for All Organizations</u>	218
<u>4.b. National HCV for Federal Lands Only</u>	221
<u>4.c. HCVs Identified in the FSC US Controlled Wood National Risk Assessment</u>	222
<u>4.d. Additional Considerations for Identifying HCV</u>	222
<u>5. HCV 1 – Species Diversity</u>	223
<u>6. HCV 2 – Landscape-Level Ecosystems and Mosaics</u>	227
<u>7. HCV 3 – Ecosystems and Habitats</u>	230
<u>8. HCV 4 – Critical Ecosystem Services</u>	232
<u>9. HCV 5 – Community Needs</u>	234
<u>10. HCV 6 – Cultural Values</u>	235
<u>11. HCV Checklist for Family Forests</u>	236
<u>12. Pertinent Definitions</u>	242
<u>13. Literature Cited</u>	244

1. Introduction

The Forest Stewardship Council® (FSC) Principles and Criteria for Forest Stewardship (P&C; FSC-STD-01-001) give special attention to biological, ecological, social, or cultural values of outstanding significance. These values, referred to as *High Conservation Values (HCV)**, and the areas needed for their existence and maintenance, are subject to the requirements of Principle 9 of the P&C. Many of the resources that receive *HCV** designation, such as concentrations of rare *species**, are also addressed under Principle 6 (Environmental Values and Impacts), or other *Principles** of the P&C. The challenge for landowners seeking FSC certification is distinguishing between values that are adequately covered under other *Principles** from values that rise to the level of needing to be considered under Principle 9. Due to the threshold of significance, importance, and/or rarity required for *HCV** status, not every *Management Unit** will have an *HCV**. The following guidance is intended to assist certified landowners and those seeking certification with identifying, managing, and monitoring *HCVs** and thereby achieving conformance with Principle 9.

1.a. High Conservation Values

*HCVs** demand a greater degree of *protection** to ensure their *long-term** maintenance or enhancement, particularly if they may be negatively affected by *management activities**. This involves greater efforts to identify them (per Criterion 9.1), greater attention to determining (per Criterion 9.2) and implementing (per Criterion 9.3) appropriate management measures, and through monitoring both implementation and effectiveness of these measures (per Criterion 9.4). FSC recognizes six types of *HCVs**:

- **HCV 1 – Species Diversity.** Concentrations of biological diversity, including *endemic species**, and *rare, threatened or endangered species**, that are *significant** at global, national, or regional levels.
- **HCV 2 – Landscape-Level Ecosystems and Mosaics.** *Intact Forest Landscapes** and large landscape-level *ecosystems** and *ecosystem** mosaics that are *significant** at global, national, or regional levels, and that contain viable populations of the great majority of the naturally occurring *species** in natural patterns of distribution and abundance.
- **HCV 3 – Ecosystems and Habitats.** Rare, threatened or endangered *ecosystems**, *habitats**, or *refugia**.
- **HCV 4 – Critical Ecosystem Services.** Basic *ecosystem services** in *critical** situations, including *protection** of water catchments and control of *erosion** of vulnerable *soils** and slopes.
- **HCV 5 – Community Needs.** Sites and resources fundamental for satisfying the basic necessities of *local communities* or *Indigenous Peoples* (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or Indigenous Peoples.
- **HCV 6 – Cultural Values.** Sites, resources, habitats and *landscapes** of global or national cultural, archaeological or historical *significance**, and/or of *critical** cultural, ecological, economic or religious/sacred importance for the traditional cultures of *local*

communities or Indigenous Peoples**, identified through *engagement** with these *local communities* or Indigenous Peoples**.

1.b. Normative Aspects of this HCV* Framework

Unless clearly indicated otherwise, this Framework is considered guidance and, by definition, informative and not normative. However, *The Organization** shall consider this HCV* Framework as they identify, manage and monitor HCVs* associated with the *Management Unit**, per Indicators 9.1.1., 9.2.1, and 9.4.1. When this Framework references normative requirements, the applicable *Criterion** or *Indicator** is noted.

Any FSC Policy, Standard or Procedure referenced or quoted in this guidance document retains its normative status.

2. Terminology

For consistency, it is important that *The Organization** and *Certification Bodies** are working with a common set of terminology when addressing HCVs*. While not comprehensive, the following addresses some terms that have or may present particular difficulties. Note that Section 12 provides definitions for additional terms.

2.a. HCV vs. HCV Attribute vs. HCVA vs. HCVF

The first national *forest** management standard in the US (V1.1) was developed under P&C Version 4, and used the terms “HCV Forest” (HCVF) and “HCV attributes”. “Attributes” referred to the values to be maintained or enhanced, and HCVF to the *forests** in which the attributes occurred. For the US NFSS (V2.0) developed under P&C Version 5, values are now simply termed “HCV*” and the *forested** and non-*forested** areas that “possess and/or are needed for the existence and maintenance of identified HCVs*” are termed *High Conservation Value Areas (HCVA)**. This expands the identification of HCV* to non-*forested** areas.

2.b. Conservation Areas vs. HCVAHCVA* should be considered *conservation zones** or *protected areas** (and included in the *Conservation Areas Network**, per Criterion 6.5), but not all *conservation** areas will be HCVA*. Principle 9 addresses a fraction of the values addressed in other *Principles**, and also addresses a small number of important environmental and social values that are not addressed elsewhere in the US NFSS. Examples of values within *conservation** areas that would generally not rise to the level of HCV* within HCVA*, include: fens throughout the *management unit** where management is adapted to *restore**, maintain, or enhance the fen habitat; *buffer zones** around nest sites of *rare, threatened and endangered bird species**; and *long-term* retention** areas that preserve viewscapes important to the economy of a *local community**. Examples of HCVA* could include: a regionally *significant** fen area that supports a number of critically imperiled *species** and the *buffer** around it, in which *management activities** are limited or modified to *protect** the fen area, a rare *ecosystem** and the *stands** around it that are managed to help control and exclude *invasive species** from the rare *ecosystem**, or the last nesting area of a nearly extinct bird *species** that is highly sensitive to disturbance, and the area around it in which *management activities** are prohibited during the nesting season.

2.c. Landscape

The US NFSS definition of “*Landscape*” provides a specific *scale* for purposes associated with *Representative Sample Area (RSA)* establishment and assessment, but recognizes that different scales are appropriate for consideration of “*landscape*” in other contexts associated with the Standard. For *HCV* assessments and management, the “*landscape*” considered should be as defined in the second paragraph of the definition, i.e., the area within and around the *Management Unit* that could be affected by the *management activities* occurring within the *Management Unit*, and also where activities occurring external to the *Management Unit* could affect the ability of *The Organization* to maintain *significant* environmental and social values within the *Management Unit*. Typically, a smaller *management unit* will have a smaller *landscape*, and a larger *management unit* a larger *landscape*. However, this ‘rule’ will not apply in some situations, such as a smaller *management unit* that occurs at the headwaters of an important waterway where the *management activities* could have critical downstream impacts, or a larger *management unit* that occurs in isolation within a developed environment.

2.d. Management Unit vs. Contiguous Lands

The *Management Unit* consists of the defined lands that are managed together under “a set of explicit *long-term management objectives* which are expressed in a *management plan*”. These lands may occur as a single contiguous block of land, or may occur as detached and separate blocks of land that are managed in concert.

Some types of *HCV* require consideration of contiguous *forest* or lands of a certain size. Identification of this kind of value should be completed initially without consideration of the *Management Unit* boundaries—does such a value exist in the landscape within which any portion of the *Management Unit* occurs? If so, the *HCV* assessment should consider whether there are any portions of the *Management Unit* that should be considered *HCVA* due to their importance for maintaining the *HCV*.

2.e. FSC US Regions vs. Regionally Significant

FSC US has defined a set of regions that represent differences that are important for conformance with particular *Indicators* in Principle 6. For the purposes of assessing and identifying *HCV 1* and *HCV 2* (i.e., values that are significant at global, national, or regional levels), the “regional” context should be ecological only. Ecological Provinces defined by Cleland 2007 should be used for this purpose. If data for the region are limited, or in the cases of very small ecological provinces, a larger area may be justified. Where justified, using *Best Available Information*, a comparable classification system (e.g., TNC’s Ecoregion Map) may be used instead. Therefore, as used in this *HCV* Framework, regional considerations will always be at a sub-national scale.

2.f. Precautionary Principle/Approach

Per Criterion 9.3, when the available information indicates that *management activities* pose a threat of severe or irreversible damage to the environment or a threat to human welfare, *The Organization* is required to take explicit and effective measures to prevent the damage and avoid the *risks* to welfare, even when the scientific information is incomplete or inconclusive,

and/or when the vulnerability and sensitivity of environmental values are uncertain, i.e., in a manner consistent with the *precautionary approach*^{*}. Avoiding *risks*^{*} when scientific information is incomplete or inconclusive is appropriate for Principle 9, given the vulnerability and sensitivity of the values in question. When implementing the *precautionary approach*^{*}, *HCVs*^{*} are understood to be *critical*^{*}, fundamental, or *significant*^{*} and therefore any threat to a *HCV*^{*} is considered to be a threat of severe or irreversible damage.

2.g. Management

Management activities^{*} may range from zero or minimal interventions to a specified range of appropriate interventions and activities designed to maintain or enhance identified *HCV*^{*}. Maintenance or enhancement of *HCVs*^{*} does not necessarily prohibit other uses of, or activities within, an *HCVA*^{*}, including *silvicultural*^{*} uses, as long as (per Indicator 9.3.1) any *management activities*^{*} implemented in *HCVAs*^{*} maintain or enhance the *HCVs*^{*} and the extent of the *HCVA*^{*}.

3. Information and Data Sources

3.a. Overarching Best Available Information^{*}

The purpose of listing the below overarching *Best Available Information*^{*} is to avoid having to list it repetitively for each *HCV*^{*} in the following sections.

The Organization^{*} is required to use *Best Available Information*^{*} (per Indicator 9.1.1) and consult with *rights holders*^{*} and *stakeholders*^{*} (per Indicator 9.1.3) when completing their assessment and identification of *HCVs*^{*}, and are also required to consult with *rights holders*^{*}, *stakeholders*^{*} and *experts*^{*} when developing management strategies for *HCVs*^{*} (per Indicator 9.2.2) and as part of their monitoring program (per Indicator 9.4.2). Finally, per Indicator 9.1.1 (through the reference to the types of *HCV*^{*} defined in Criterion 9.1), *The Organization*^{*} is required to identify *HCV 5*^{*} and *HCV 6*^{*} through *engagement*^{*} with particular *stakeholders*^{*} - *local communities*^{*} and *Indigenous Peoples*^{*} (i.e., *Native American*^{*} groups). These four sources of information (i.e., *Best Available Information*^{*}, *rights holders*^{*}, *stakeholders*^{*} and *experts*^{*}) will be overlapping in many cases, and are presented all together in the following lists, as well as in other lists of information sources later in this document.

3.a.i. Best Available Information^{*} for Identifying and Assessing *HCVs*^{*}

- Data gathered to address rare or important ecological features associated with Criteria 6.1, 6.2, 6.3, and 6.4
- *High Conservation Value*^{*} surveys of the *Management Unit*^{*}
- Relevant databases and maps
- *Culturally appropriate*^{*} engagement with *Native American*^{*} groups, affected *rights holders*^{*}, *affected stakeholders*^{*} and *interested stakeholders*^{*}, per the FSC US Guidance on *Free Prior and Informed Consent*^{*} (US NFSS, Annex F)

- Existing assessments of environmental and social values undertaken by public agencies and/or other *conservation** groups, including State Wildlife Action Plans and NatureServe
- Existing assessments of environmental and social values undertaken on adjacent land ownerships
 NOTE: If the *Management Unit** has not been surveyed for social or environmental values, but is adjacent to an area with known *significant** values, then consultation with an expert may be critical for determining if the values also occur on the *Management Unit** and should be considered *HCVs**.
- Initial consultation for *HCV 1**, *HCV 2** and *HCV 3** is generally with state Natural Heritage Programs, state wildlife agencies, the US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS)
- On *large* Management Units**, for *HCV 1*, *HCV 2*, *HCV 3* and *HCV 4**, a *Management Unit**-specific assessment including on-site review may be appropriate if the *Management Unit** has not been assessed by an *expert** and evidence suggests that *HCVs** may be present
- For relevant elements of *HCV 5** and *HCV 6**, *engagement** with *local communities** and *Native Americans** (per Criterion 9.1)
- *Common Guidance for the Identification of High Conservation Values: A Good Practice Guide for Identifying HCVs Across Different Ecosystems and Production Systems. HCV Network. September 2017*
- *High Conservation Value Guidance for Forest Managers (FSC-GUI-30-009). Forest Stewardship Council. 2020. <https://fsc.org/en/document-centre/documents/resource/422>*

3.a.ii. Best Available Information* for Developing Management Strategies for HCVs*

- *Culturally appropriate* engagement** with *Native American** groups, affected *rights holders**, *affected stakeholders** and *interested stakeholders**, per the FSC US Guidance on *Culturally Appropriate Communication & Free Prior and Informed Consent (US NFSS, Annex F)*
- Consultation with *experts**
- Existing *conservation** planning undertaken by public agencies and/or other *conservation** groups, including State Wildlife Action Plans and NatureServe
- *Common Guidance for the Management & Monitoring of High Conservation Values: A Good Practice Guide for Adaptive Management of HCVs. HCV Network. April 2018*
- *High Conservation Value Guidance for Forest Managers (FSC-GUI-30-009)*

3.a.iii. Best Available Information* for Monitoring Methodologies

- *Engagement** with *rights holders**, consistent with Criteria 3.5, 4.5 and 4.7

- *Culturally appropriate* engagement** with *Native American** groups, *affected stakeholders** and *interested stakeholders**, per the FSC US Guidance on *Culturally Appropriate Communication & Free Prior and Informed Consent* (US NFSS, Annex F).
- Existing *conservation** planning undertaken by public agencies and/or other *conservation** groups, including State Wildlife Action Plans and NatureServe
- Monitoring conducted by the *Native American** groups and/or *local communities**
- Consultation with *experts**
- *Common Guidance for the Management & Monitoring of High Conservation Values: A Good Practice Guide for Adaptive Management of HCVs. HCV Network. April 2018*
- *High Conservation Value Guidance for Forest Managers (FSC-GUI-30-009)*

3.b. Documenting HCV* Assessments

Per Indicator 9.1.1, *The Organization** is required to document their *HCV** assessment. This should be done in a transparent manner that can be reviewed by auditors and *interested stakeholders**. The documentation may be in the form of an *HCV** assessment report, or (similar to the *management plan**) may be a collection of documents, reports, records, maps and other materials as applicable. However, if the second approach is taken, *The Organization** should prepare a summary that identifies the various materials within the collection, and summarizes the assessment process and its conclusions.

Documentation should include:

- Who conducted the assessment (e.g., name, qualifications, affiliation)
- *Rights holders**, *experts** and *stakeholders** consulted (e.g., name, affiliation, *rights** held)
- Records demonstrating when and how *culturally appropriate** consultations were implemented (e.g., records of phone calls, lists of meeting attendees, copies of email correspondence)
- What additional sources of *Best Available Information** were used
- *HCV** identified and associated areas designated as *HCVA**, including detailed maps of *HCV** and *HCVA** (digital or paper-based)
- Status of identified *HCV** (e.g., short-term and *long-term** threats, overall viability)
- A description of the methodology used to make decisions as to how *HCV** and *HCVA** were selected and delineated

*Engagement** with *experts** may include primary consultation (i.e., direct *engagement** with the *expert**) and/or secondary consultation. An example of *secondary consultation* is when a state empanels a committee of *expert** botanists to determine which plants are rare, threatened, or endangered within a state or region (i.e., the landowner can rely on the committee's work without *engaging** in independent consultation).

3.c. Culturally Appropriate Stakeholder Consultation

The primary source of *Best Available Information** for *HCV 5** and *HCV 6** is direct consultation with *local communities** and *Native American** groups that have a connection to the *Management Unit** or the *landscape** in which it occurs. The US NFSS Annex F, Guidance for *Culturally Appropriate Communication & Free, Prior and Informed Consent (FPIC)*, will assist *The Organization** in determining the best *engagement** approach and also with *FPIC**, if required per Criterion 3.2 and/or Criterion 4.2. For *engagement** with *local communities** that are not explicitly addressed in the US NFSS Annex F, a variety of consultation approaches may be considered depending on the context and situation. Some *local communities**, for example, may be approached through public notices and solicitations for information, whereas others may be better served through public meetings or face-to-face *engagement** with stakeholder representatives (e.g., Town Managers, Board of Supervisors, County Planners, Water District Managers, or other government officials).

In some cases resources are of such importance to a *Native American** group that *tribal** representatives are unwilling to share the location of these resources with outside parties. In some cases, the location of particularly important sites are known to only a few *tribal** members. In such situations, one potential approach is to periodically share maps of proposed *management activities** with *tribal** representatives and then leave it to their discretion as to whether to share information regarding whether *HCVs** might be affected by the *management activities**.

3.d. When New Information Becomes Available

Per Indicator 9.1.1, if *The Organization** learns of new applicable information, it needs to update the assessment to incorporate the information. New information may become available following research completed by *The Organization** or others, as a result of *HCV** monitoring *The Organization** conducts, through the observations of staff or *stakeholders** or through other means. If this information suggests that there may be an *HCV** that was not previously identified, or that there has been a change in the status of a known *HCV**, the assessment needs to be updated to reflect this information, and both management and monitoring adjusted as appropriate.

4. HCV Identification and Assessments

Per Indicator 9.1.1, it is primarily the responsibility of *The Organization**, or the landowner seeking certification, to conduct *HCV** assessments that are appropriate to the *Management Unit**, its *landscape** context, and the FSC US region in which it occurs, and that include identification of *HCV** and *HCVA**, status assessment of *HCVs**, and *engagement** with *stakeholders** and *rights holders**. Due to the unique context of each *Management Unit**, this will generally result in a unique set of *HCVs** and *HCVA** for each *Management Unit** that has *HCVs**. It is important to note that one possible assessment finding is that a *Management Unit** does not have any *HCVs** present.

The rigor of the assessment, including *engagement**, should increase in situations where, due to the context of the *Management Unit** and its *management activities**, there is a particularly

high number of *HCVs** and/or the *risk** of negative impacts on the *HCVs** is particularly high. Specific expectations for identification and assessment of *HCV** within *Family Forests** are provided in Section 11 of this Framework document.

If initial evaluations determine that there is a high potential for one or more *HCVs**, *The Organization** may choose to designate an *HCV** without further study (and then take appropriate steps to manage and monitor the area), instead of undertaking additional studies to determine if the area in question actually harbors the *HCV(s)**.

4.a. National HCV for All Organizations

If any portion of an *Intact Forest Landscape (IFL)** occurs within the *Management Unit**, it will always be *HCV 2** (per Indicator 9.1.2). The other National *HCV** described below are considered *HCV** except in very rare situations (for which *The Organization** has very well developed and documented rationale). *The Organization's** *HCV** assessment must consider these National *HCV** and also regionally and more *locally** *significant** environmental and social values—additional guidance on identifying these values follows.

4.a.i. Intact Forest Landscapes*. *Intact Forest Landscapes (IFL)** are considered *HCV** (*HCV 2**), and subject to the requirements of Principle 9. Being the last remaining large unfragmented *forested** areas in the world, *IFLs** are valued for their environmental, social, and intrinsic worth and are considered globally *significant**.

Identifying *IFLs**: Global Forest Watch (<http://www.intactforests.org>) and/or other data that are more recent, accurate and/or refined than those provided by Global Forest Watch, shall be used to identify *IFL** that existed within the *Management Unit** as of January 1, 2017. Areas identified by Global Forest Watch shall be considered *IFL** unless evidence-based assessments determine that the area does not meet the definition of *IFL** (i.e., the methodology used is more recent, accurate and/or refined than the Global Forest Watch methodology¹). Areas that have been or continue to be disturbed by commercial or *industrial activities**, developed areas, and areas with *infrastructure** associated with the aforementioned activities and development, should not be included in *IFLs**. Areas with evidence of old disturbances and low-intensity disturbances, such as selective logging for non-commercial purposes and hunting, should be included in *IFLs**.

Note: While most *IFL** in the US are located on public lands; it is possible for private forests to border *IFL** and thus need to consider *IFL** during their *HCV** assessment and designation of *HCV**.

*IFLs** that have been severely degraded by *management activities** implemented after 2017 may be considered for certification if the *Organization** was not responsible for the degradation of the *IFL** and demonstrates a commitment to conservation and restoration of the area pre-2017 *IFL** area.

Managing *IFLs**: Per Indicator 9.2.3, certificate holders for non-federal *Management Units** are expected to designate and manage at least 80% of the total area of *IFL** identified within the *Management Unit** and not less than 123,500 acres (50,000 ha) as core area, while the entirety

¹ <https://data.globalforestwatch.org/datasets/intact-forest-landscapes-2016>

of *IFLs** on federal lands are to be designated and managed as *core areas** (per USFS Supplement to Indicator 9.2.3). *Core areas** are to include the most important cultural and ecological values and be managed to exclude *industrial activity**. *Core area** management strategies should maintain the extent and intactness of the *forest** *ecosystems** and the viability of their *biodiversity** concentrations, including plant and animal indicator *species**, keystone *species**, and/or guilds associated with large intact *natural forest** *ecosystems**. Maintenance of *IFL** *core areas** will require identifying and addressing potential threats.

Limited *industrial activity** within *IFL** *core areas** is allowed only if all effects of *industrial activity**:

- Are restricted to a *very limited portion** of the *core area**, not to exceed 0.5% of the *core area** in any one year, nor to affect a total of more than 5% of the *core area**
- Do not reduce the *core area** below 50,000 ha
- Will produce clear, substantial, additional, *long-term** *conservation** and social benefits consistent with Criterion 9.2

Portions of *IFLs** that are not designated as *core areas** are still *HCV 2** and therefore must be managed to maintain or enhance their *HCV 2** values. This includes maintaining the viability of their *biodiversity** concentrations, including plant and animal indicator *species**, keystone *species**, and/or guilds associated with large intact *natural forest** *ecosystems**.

Monitoring *IFLs**: *The Organization** is expected to monitor trends, impacts of *management activities**, and threats. The baseline condition of any variable is key, as trends and effectiveness may change over time. Annual monitoring of extent and intactness of the *IFL** is recommended so that new threats may be quickly identified. Both *engagement** and ecological *protection** strategies are fundamental to a working monitoring program.

4.a.ii. *Old Growth *Forest****. *Old growth** is called out and *protected** uniquely in the standard because of its importance and its significant underrepresentation across the *landscape** as a successional stage. *Old growth** *forest** (*Type 1** and *Type 2**) is *HCV** (*HCV 3**), and subject to the requirements of Principle 9, except on the forest types of northern white cedar or black spruce in upper Midwest states when the *old growth** successional stage of these *forest** types is widely represented in the *landscape**. Per Indicator 6.8.2, *Type 1** and *Type 2** *old growth** are to be *protected**. This includes protection from timber *management activities**, except as needed to maintain the ecological values associated with the *stand** or per Indicator 6.8.3 when northern white cedar or black spruce *old growth** in upper Midwest states is widely represented. Individual *old growth** trees or *stands** with *old growth** trees that don't meet the definition of *old growth** (*Type 1** or *Type 2**) are addressed as *legacy trees** (per Indicator 6.6.3). *Old growth** *forest**, as defined, is always associated with *forests** that originated prior to European settlement.

4.a.iii. *Primary Forest**. All *primary forest** is *HCV** (*HCV 3**), subject to the requirements of Principle 9, due to the rarity of *forest** *ecosystems** that have retained the principal characteristics and key elements of native *ecosystems** and have remained relatively undisturbed by human economic activity. Any evidence or documentation that commercial *forest** *management activities** have occurred in an area, even if it is not readily visible, would exclude the area from being *primary forest**. In fire- or other disturbance-dominated

*ecosystems**, *primary forest** may not always be dominated by mature trees, or any trees at all, but instead may present as a mosaic of older and younger *stands**. Maintenance of this *HCV** will focus on *conserving** the principal characteristics and key elements of the native *forest**, and limiting human economic activities.

4.a.iv. Wilderness Areas. Wilderness areas enrolled in the National Wilderness Preservation System (<https://www.wilderness.net/>) or a similar state-level system, meet the definition for HCV 6 and may also, in their entirety or within a portion of the area, meet the definition for HCV 2. Maintenance of this kind of HCV will preclude forest management activities and use of equipment that do not maintain or enhance the areas' wilderness characteristics, taking into consideration the attributes associated with the designation of the specific Wilderness Area. Designated wilderness areas are found throughout the United States but are more common in the western regions (i.e., Pacific Coast, Rocky Mountains, and Southwest).

4.a.v. Drinking Water Supply Management Zones. Some communities have designated areas that are *critical** for *protection** of the community's drinking water supplies. With rare exception, these meet the definition of *HCV 4** and are subject to the requirements of Principle 9. This includes public water drinking systems that are regulated by the US Environmental Protection Agency², but not smaller systems with more limited numbers of users. Maintenance of these areas does not necessarily preclude logging or other *forest* management activities** so long as they are compatible with laws and regulations (Principle 1) and maintain or enhance the *ecosystem service** (i.e., drinking water) provided to the community.

Additionally, any designated public drinking water surface supply (i.e., reservoir, lake, pond, or river), will meet the definition of *HCV 4**. Areas within 250 feet of those surface supplies that have *soils** rated as prone to *erosion**, slopes rated as high hazard for failure, and areas within the 100-year flood zone, should be included within the *HCVA** for these *HCV**.

4.a.vi. National Register of Historic Places. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and *protect** America's historic and archeological resources. While occurrence of these registered historic places is likely rare within FSC certified lands, any that do occur are *HCV 6** and subject to the requirements of Principle 9. *Management activities** that maintain or enhance the *HCV** are acceptable.

4.a.vii. UNESCO World Heritage Sites. The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, *protection** and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. This is embodied in an international treaty called the 'Convention concerning the Protection of the World Cultural and Natural Heritage,' adopted by UNESCO in 1972. Any sites that are included in the World Heritage List automatically meet the definition of *HCV 6**. *Management activities** that maintain or enhance the *HCV** are acceptable.

² <https://www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring>

A public water system provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year. A public water system may be publicly or privately owned.

4.b. National HCV for Federal Lands Only

Consistent with the expectation that *ecosystem services** and other public benefits are given priority on federal lands, when the following occur on federal lands, they are considered *HCV**.

4.b.i. Roadless Areas on Federal Lands. Large areas without any evidence of roads (including no evidence of skid trails) are extremely rare in the conterminous US and provide unique *habitat**, with a higher likelihood of intact natural functions and *ecosystem** processes. When they occur on federal lands, the following are considered *HCV 3**:

- Undeveloped areas that are at least 1,000 acres in size and that meet the minimum criteria for wilderness consideration under the Wilderness Act—in regions with very little undeveloped land, the size of the area that should be considered may be smaller
- Any area that meets the definition of ‘roadless’ as provided in the Roadless Rule

Typically, maintenance of this kind of *HCV** will preclude commercial *forest** management, unless they can be achieved without the construction of new roads and maintain or enhance the wilderness characteristics.

4.b.ii. High Carbon Forests* on Federal Lands. Regulation of climate is a crucial *ecosystem service**, and in turn, climate change can affect other *ecosystem services** such as regulation of floods and drought. *Forest* stands** that store relatively high amounts of carbon in their trees, *soils**, and other components thus represent both an important value, and a potential threat if intensive harvests or other management significantly reduces their carbon stores. High carbon *forests** are most likely to be found in publicly owned *forests**, especially federally-administered *forests**, where they are normally to be considered *HCV 4**. While *old growth** and other *late successional* forests** are more likely to have higher carbon levels, stand age alone does not determine carbon levels. Definitions and information on the presence of such *forests** are evolving. In the Pacific Northwest, sites on *public lands** that have >200 Mg/ha of above-ground biomass, or are capable of easily reaching that threshold should generally be considered high carbon, pending new information.³ Comparable thresholds for other regions are being developed by the Woods Hole Institute & Geos Institute. Peatlands in *forested* landscapes** are also likely to have high carbon storage levels, and should also be assessed for their carbon storage function. Management strategies to maintain or enhance this *HCV** (per Indicator 9.2.1) should maintain high carbon stands’ natural ability to store and sequester carbon. Harvests should be limited to operations that maintain that natural ability, and not reduce on-site carbon

³ In the PNW, 200 Mg/ha (metric tonnes) represents the lower range of biomass for old growth forests, per Krankina et al (2014), High biomass forests of the Pacific Northwest: who manages them and how much is protected? *Environmental Management* 54:112-121. Krankina et al (2014) used data from: NBCD (2000) National Biomass and Carbon Dataset for the Year 2000, Woods Hole Research Center Map 2011, <http://www.whrc.org/mapping/nbcd/index.html>. The NBCD 2000 dataset/map is also at: <https://databasin.org/datasets/b8f0aab08198484a81f42cc0d98e62ad>. An updated version specific to the Northeast is at: <https://databasin.org/datasets/e41f3f04b51041acb37fadd2d73c8e3b>.

levels at any time, except in cases where necessary to *protect** lives and property (e.g., thinning of smaller trees in urban interface zones) or to *restore** *stands** and *ecosystems** to *natural conditions** that are more resilient to fire or other disturbances (e.g., thinning of smaller trees in previously fire-suppressed areas).

4.c. HCVs Identified in the FSC US Controlled Wood National Risk Assessment

The US National Risk Assessment (US NRA) is the primary source of information used by FSC *Chain of Custody** certificate holders that have Controlled Wood within the scope of their certificate to determine whether they have a risk of receiving materials from *forests** in the conterminous US where certain undesirable activities are occurring. One category of risks assessed is the risk of receiving materials from *forests** where the *forest** *management activities** threaten *HCVs**. However, the scale of the assessment completed for the NRA was much more coarse than the assessment that is needed by a FSC Forest Management certificate holder. The US NRA is based on the existing *Draft High Conservation Value Forest Assessment Framework* for the conterminous US. Future revisions of the US NRA will need to be aligned with this *HCV** Framework.

4.d. Additional Considerations for Identifying HCV*

Non-native ecosystems* will never be *HCV 1**, *HCV 2**, or *HCV 3**

Not all wetlands* are HCV*; **not all riparian areas* are HCV***—only those that: 1) have *significant** concentrations of *biodiversity** (including *endemic** or *rare, threatened and endangered species**) compared to other *wetlands**/*riparian areas** globally, nationally, or regionally; 2) are *landscape** *scale** in nature, intact, and *significant** compared to other *wetlands** globally, nationally, or regionally (such as a particularly large, intact peatland); 3) are representative of a *rare ecosystem** or *habitat**, or serve as a *refugia**; 4) provide a *critical** *ecosystem service**, such as water filtration or storage, the loss of which would directly cause suffering to recipients of the service; 5) provide a resource that is fundamental to satisfying a basic necessity of survival for a *local community**; or 6) have *significant** cultural, archaeological or historical value compared to other sites globally, nationally, or regionally, or are of *critical** importance for *Native American** groups.

Not all rare, threatened and endangered species* are HCV*; **not all listed species are HCV***—the focus of *HCV 1** is that these *HCV** represent concentrations of *biodiversity*, typically areas that have a high number of *endemic species** or *rare, threatened and endangered species**, when compared to other areas globally, nationally, or regionally. Typically, an *HCV 1** will not be identified for a single *species**, with the exception being in situations where the *species** is highly imperiled and is found in a population large enough to be considered a concentration or *significant**, or where survival of the *species** is critically dependent on the area in question (typically because there is so little *habitat** remaining), or where *Best Available Information** indicates that every surviving individual of the *species** is critical to the viability of the *species**, or where there is a particularly important genetic variant, subspecies, or variety.

No HCV* is defined only by the presence of big trees—other characteristics indicative of a particular *HCV** type must also be present.

Not all fish-bearing streams are HCV*—similar to the *wetlands** and *rare, threatened and endangered species** considerations above, there would need to be additional characteristics, beyond simply presence of fish, for the stream to be considered an HCV*.

5. HCV 1 – Species Diversity

HCV 1 – Species* Diversity. Concentrations of biological diversity including endemic species*, and rare, threatened or endangered species*, that are significant* at global, national, or regional levels.

5.a. Assessment and Identification of HCV 1*

*Significant** concentrations of biodiversity include areas that contain concentrations of *rare, threatened, and endangered species**, *endemic species**, natural communities, or other *biodiversity** values that occur in numbers, frequency, quality, and/or density that are sufficiently outstanding to be considered unique or highly important in comparison with other areas within the ecoregion within which the *Management Unit** is located. Identification and assessment of HCV 1* should begin with the national considerations provided in Sections 4.a and 4.b, and then follow the guidance below to determine if there are additional HCV*.

Assessing concentrations of biological diversity that are *significant** at global, national, or regional levels requires differentiating between resources that are addressed primarily by the requirements of Principle 6 versus those that rise to the level of being considered under Principle 9. All *endemic species** and *rare, threatened and endangered species** must be considered under Principle 6, but not all such occurrences result in HCV* designation and the requirements of Principle 9.

While HCV 1* focuses primarily on concentrations of *biodiversity** with multiple *endemic species** and/or *rare, threatened and endangered species**, a concentration of a single *species** may also rise to the level of HCV 1*. This is possible under two scenarios:

1. Important populations (e.g., particularly important genetic variants, subspecies or varieties), or a great abundance of an individual *endemic** or *rare, threatened and endangered species** representing a substantial proportion of the regional, national or global population, which are needed to maintain the *species** as a whole
2. Small populations of individual *endemic** or *rare, threatened and endangered species**, in cases where the regional, national, or global survival of that *species** is critically dependent on the area in question (such *species** are likely to be restricted to a few remaining areas of *habitat**)—in these cases, there is often a consensus (among many *stakeholders**) that every surviving individual is globally *significant**

Concentrations of *biodiversity** that occur temporally may also be HCV 1*. Examples could include regionally *significant** hibernacula for bats, stop-over sites for migratory birds, or breeding areas (i.e., where an *rare, threatened and endangered species** or *endemic species** is temporarily concentrated).

5.a.i. Resources & Guidance for HCV 1*:

The below datasets are focused on areas likely to have concentrations of *biodiversity** that are *HCV 1**. Additional consultation with *stakeholders** and/or *experts** may be appropriate if the *Management Unit** is adjacent to an identified area with regionally *significant** concentrations of *biodiversity** values, or if the *Management Unit** contains *ecosystems** and site conditions that are similar to such areas.

- International Union for the Conservation of Nature (IUCN) Management Category 'Ia' (when assigned to protected areas for inclusion in the United Nations Environment World Conservation Monitoring Center (WCMC) World Database for Protected Areas (WDPA) and the Commission for Environmental Cooperation (CEC) North American Terrestrial Protected Areas Database)
 - <https://www.unep-wcmc.org/resources-and-data/wdpa>
 - <http://www.cec.org/tools-and-resources/map-files/north-american-protected-areas-2017>
- NatureServe Maps of Biodiversity Hotspots & Biodiversity Importance
 - <https://www.natureserve.org/conservation-tools/natureserve-hotspots-map>
 - <https://www.natureserve.org/conservation-tools/projects/map-biodiversity-importance>
- Areas identified through The Nature Conservancy's (TNC) Ecoregional Assessments as having *significant** concentrations of *biodiversity**
 - <https://www.conservationgateway.org/ConservationPlanning/SettingPriorities/EcoregionalReports/Pages/EastData.aspx>

As not all areas with *significant** concentrations of *biodiversity** have been identified through the above datasets, the following considerations suggest contexts with a higher likelihood of *HCV 1** occurrence. If any of the following exist within or adjacent to the *Management Unit**, the *HCV** assessment should be more rigorous in its evaluation of whether concentrations of *biodiversity** that are *significant** at global, national or regional *scales** are, in fact, present within the *Management Unit**.

Concentrations with Multiple *Species**:

- UNESCO Biosphere Reserves
 - <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/europe-north-america/>
 - <https://www.nature.nps.gov/biology/globalconservation/biosphere.cfm>
- Areas placed in the federal Protected Areas Database (PAD) as GAP Status 1 or GAP Status 2
 - <https://gapanalysis.usgs.gov/padus/data/download/>
 - <https://gapanalysis.usgs.gov/padus/>
 - <https://gapanalysis.usgs.gov/padus/viewer/>

- Areas with a number of *species** that are included on the IUCN Red List and are classified by IUCN as Critically Endangered, Endangered, or Vulnerable
 - <https://www.iucnredlist.org/search/map>
- *Management Units** with federally-designated “critical habitat” for a number of *species** that are federally listed as threatened or endangered
 - <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>
 - <https://ecos.fws.gov/ipac/>
- A county or watershed identified by NatureServe as having a large number of *species** of *conservation** concern
 - <http://www.natureserve.org/conservation-tools/listed-and-imperiled-species-county-and-watershed/county-map>
 - <http://www.natureserve.org/watershed-map>
- Areas with a number of viable populations of *rare, threatened and endangered species** associated with the same *ecosystem** type or *ecosystem** mosaic. NOTE: Accessing data for this scale of assessment may be more difficult for some *Organizations**, but these kinds of places can be identified using the following resources
 - Consultation with state Natural Heritage Program or similar state agency
 - State and federal *threatened species** and *endangered species** assessments
 - US Fish and Wildlife Service Information for Planning and Consultation (IPaC) web tool (<https://ecos.fws.gov/ipac/>)
- Regionally *significant** migratory staging areas, seasonal breeding sites, migratory corridors, and other seasonal concentrations of *species**
 - <https://www.audubon.org/important-bird-areas>
 - Other data sources: State Natural Heritage Programs, Federal and state wildlife agencies, surveys and assessments of the *Management Unit**, local or regional *conservation** organizations
- *Management Units** with known occurrences of natural communities or *habitats** identified as critically imperiled or critically rare, or endemic *habitats** that are severely limited in distribution and/or occurrence
 - Data sources: State Natural Heritage Programs, State Wildlife Action Plans, surveys and assessments of the *Management Unit**, *local** or regional *conservation** organizations
- Roadless areas (i.e., areas without evidence of roads or skid trails) greater than 500 acres

Concentrations with a Single *Species**:

- *Management Units** with federally-designated “critical habitat” or known occurrences of a *species** listed as “critically endangered” by IUCN or “critically imperiled” by NatureServe, where only a very small population of the *species** remains extant and survival of the *species** is dependent on maintenance of the *habitat*/occurrence*
 - Data sources: State Natural Heritage Programs, NatureServe, Federal and state wildlife agencies, surveys and assessments of the *Management Unit**
- Regionally *significant** occurrences of an *endemic species** that is listed as “vulnerable,” “endangered,” or “critically endangered” by IUCN or national or state lists, that represent a substantial proportion of the regional, national or global population and where the occurrence is needed to maintain the *species** as a whole
 - Data sources: State Natural Heritage Programs, NatureServe, Federal and state wildlife agencies, surveys and assessments of the *Management Unit**
- Regionally *significant** migratory staging areas, seasonal breeding sites, migratory corridors, or other seasonal concentrations of an *rare, threatened and endangered species** or *endemic species** where a substantial proportion of the regional, national or global population of the *species** is concentrated for a period of time and that are therefore critical for survival of the *species**
 - <https://www.audubon.org/important-bird-areas>
 - Other data sources: State Natural Heritage Programs, Federal and state wildlife agencies, surveys and assessments of the *Management Unit**, *local** or regional *conservation** organizations

A more rigorous assessment may entail additional efforts to acquire more detailed or finer-scale data regarding *species** occurrences and or presence of particular *ecosystems**, more extensive consultation with *experts** and/or regional *conservation** organizations, and/or conducting field surveys.

5.b. Strategies for Managing HCV 1

In addition to the *Best Available Information** identified in Section 3.a, the following resources may provide strategies for maintaining or enhancing *HCV 1** identified through the above assessment:

- US Fish and Wildlife Service *species** recovery plans
- Landscape Conservation Cooperative Network
- State Natural Heritage Program, or *conservation** organization, *species** assessments
- State fish and wildlife department, or similar state agency, *species** assessments and management plans
- State Wildlife Action Plans
- Regional or local *conservation** organization *landscape* conservation** plans

- In addition, per C9.2 of the Standard, affected *rights holders**, *affected stakeholders** and *interested stakeholders**, and *experts** shall be engaged in the development of strategies for maintaining or enhancing *HCV 1**. Appropriate *experts** may include agency staff, academics, and qualified ecologists

Strategies to maintain *HCV 1** occurrences should consider: *Conservation zones**, *protected areas**, harvest prescriptions, and/or other strategies to *protect** threatened, endangered, *endemic species**, or other concentrations of *biological diversity* and the ecological communities and *habitats** upon which they depend, sufficient to prevent reductions in the extent, integrity, quality, and viability of the *habitats** and *species** occurrences. Where strategies are intended to enhance *HCV 1** occurrences, they should consider: measures to develop, expand, and/or *restore* habitats** for such *species**.

5.c. Monitoring HCV 1*

In addition to the *Best Available Information** identified in Section 3.a, the following resources may provide strategies and/or data for monitoring *HCV 1** identified through the above assessment:

- Consultation with the agency, or agencies, with regulatory authority over the elements (e.g., *rare, threatened, or endangered species**; federally-designated “critical habitat”) that result in designation of the area as a concentration of *biological diversity** that is *significant** at global, national, or regional levels
- Review of *species** assessments, management plans, and recovery plans, where available
- Site-specific field surveys if warranted

Monitoring programs for *HCV 1** should have sufficient scope, detail and frequency to detect changes in the *HCVs**, relative to the initial assessment and status identified for each *HCV**.

6. HCV 2 – Landscape-Level Ecosystems and Mosaics

HCV 2 – *Landscape*-Level Ecosystems and Mosaics. *Intact Forest Landscapes** and large *landscape*-level ecosystems** and *ecosystem** mosaics that are *significant** at global, national, or regional levels, and that contain viable populations of the great majority of the naturally occurring *species** in natural patterns of distribution and abundance.**

6.a. Assessment and Identification of HCV 2

Identification and assessment of *HCV 2** should begin with the national considerations provided in Sections 4.a and 4.b, and then follow the guidance below to determine if there are additional *HCV**. Assessing *landscape*-level ecosystems** and mosaics requires identifying *IFLs** and other large *forested** and *non-forested** areas that are *significant** at global, national, or regional levels. Using much of the same *Best Available Information** from *HCV 1**, the assessment must

distinguish between those ecological features that are addressed only as part of Principle 6 from those that rise to the level of *HCV** under Principle 9.

While *Intact Forest Landscapes (IFL)** are defined as being minimally influenced by human economic activity and globally *significant** (see Section 4.a.i), other *HCV 2** are not required to be as undisturbed or pristine, and assessment of *significance** at an ecoregion or coarser scale is needed.

The term “large” is challenging to define and can vary by region. A 1,000-acre *forest** in the Pacific Northwest, for example, might not be considered notably large, but a *forest** of the same size in the Midwest or Southeast might be relatively large. The focus of *HCV 2** is on *forests** of a such as size as to make them *significant** at a regional scale. Assessments for *HCV 2** features, therefore, must consider regional contexts. Generally, “large” should be related to the area needed to maintain viable populations, especially of large or wide-ranging *species**.

For the purposes of this Framework “...contain viable populations of the great majority of naturally occurring species in natural patterns of distribution and abundance” can be understood as the presence and relatively natural distribution of the majority of the *species** expected to occur in a specific *landscape** or *ecosystem** mosaic, with recognition that some *species** may be locally extirpated or missing. Therefore, an area will not qualify as *HCV 2** if it has lost many of the *species** typical of such *ecosystems** in their natural state, or been so heavily disturbed that the relative abundance, spatial distribution, and/or regeneration has been seriously and permanently altered. Man-made, converted, heavily degraded or *fragmented** *ecosystems** typically do not qualify, such as those with a dominance of *invasive species**, disrupted *size/age class** distributions of populations, and a loss of significant *ecosystem** processes (e.g. fruit masting, dispersal of key *species**).

6.a.i. Guidance & Resources for Non-IFL* HCV 2*:

In addition to the overarching information sources provided in Section 3.a and those identified for *HCV 1**, large *landscape** level *ecosystems** or mosaics may also be assessed and identified using the following resources:

- Aerial photography, LiDAR data, and/or satellite imagery
- Aerial surveys and/or ground visits if the weight-of-evidence suggests that potential for *forest** *fragmentation** that might not be visible on remote-sensing imagery
- Reports and analyses from Natural Heritage Programs, NatureServe, IUCN Red List, USFWS, The Nature Conservancy, Global Forest Watch, WWF, and others
- Forests recognized as being *significant** at the region or coarser scale in formally recognized reports or peer-reviewed journals, due to the unusual *landscape**-scale *biodiversity** values provided by size and condition of the *forest** relative to regional *forest** land cover and land use trends
- Consultation with topic area *experts**

Additionally, the following considerations suggest contexts with a higher likelihood of *HCV 2** occurrence. If any of the following contexts exist within or encompassing the *Management Unit**, the *HCV** assessment should evaluate more closely whether the *landscape**-scale *forest** is *significant** at global, national or regional scales:

- *Natural forests** that have experienced lesser levels of past human disturbance (e.g., minimal timber harvesting) or other management (e.g. fire suppression), or areas within such *forests** (e.g., part or all of ownerships or *Management Units**)
- Managed native *forests** with *successional** stages, *forest** structures, and *species** composition that are similar in distribution and abundance to native *forests** that have experienced minimal human disturbance, excluding traditional Indigenous management regimes
- Native *forests** or *ecosystem** mosaics recognized as being *significant** to *biodiversity* conservation** because they contain *landscape*-scale biodiversity** values that are not present on other *forests** due to *landscape*-scale habitat** modifications on surrounding lands, (such as land use conversion or *forest *management practices* that have significantly altered *forest* biodiversity** values)
- Native *forests**, where if the characteristics of the *landscape*-scale forest** or *ecosystem** mosaic (e.g., *age class** structure or relative *species** abundance) were significantly altered, it would significantly affect regional *biodiversity**
- *Forests** that provide important *habitat* connectivity** between and/or buffering of larger *forest** areas and/or *refugia**; and wilderness areas, *forests** that are roadless, and/or have not been affected by *management activities**

6.b. Strategies for Managing Non-IFL HCV 2

In addition to the *Best Available Information** identified in Section 3.a, the following resources may provide strategies for maintaining or enhancing *HCV 2** identified through the above assessment:

- Reports and analyses from Natural Heritage Programs, NatureServe, IUCN Red List, USFWS, The Nature Conservancy, Global Forest Watch, WWF, and others
- Regional and *local* conservation** organization *landscape* conservation** plans
- If the *HCV 2** is the result of a particular management system, the continuation of that system will likely be the most effective *management strategy**
- Appropriate *experts** may include agency staff, academics, and qualified ecologists

Strategies to maintain *HCV 2** occurrences should consider: Strategies that fully maintain the extent and intactness of the *forest* ecosystems** and the viability of their *biodiversity** concentrations, including plant and animal indicator *species**, keystone *species**, and/or guilds associated with large intact *natural forest* ecosystems**. Examples include *conservation zones** and *protected areas**, with any commercial activity in areas that are not protected being limited to low-intensity operations that fully maintain *forest** structure, composition, regeneration, and disturbance patterns at all times. Where strategies are intended to enhance *HCV 2** occurrences, they should consider: measures to *restore** and reconnect *forest* ecosystems**, their intactness, and *habitats** that support natural *biological diversity**, and measures to *restore* species** and *ecosystem** function in areas where roads have been abandoned.

6.c. Monitoring Non-IFL HCV 2

In addition to the *Best Available Information** identified in Section 3.a, the following resources may provide strategies and data for monitoring *HCV 2** identified through the above assessment:

- Periodic evaluation of aerial photographs, LiDAR data, or satellite imagery to determine if *forest* fragmentation** is occurring within the *HCV 2**, if recent/current images are available
- Aerial surveys and/or ground visits if the weight-of-evidence suggests that potential for *forest* fragmentation** that might not be visible on remote-sensing imagery
- Monitoring of road usage and other access points to *HCV 2**

7. HCV 3 – Ecosystems and Habitats

HCV 3 – *Ecosystems and *Habitats**. Rare, threatened or endangered *ecosystems**, *habitats**, or *refugia**.**

7.a. Assessment and Identification of HCV 3

Identification and assessment of *HCV 3** should begin with the national *HCVs** in Section 4.a and 4.b, and then follow the guidance below to determine if there are additional *HCV 3**. In determining whether an *ecosystem** or *habitat** should be considered rare, consideration should be given to rarity at an ecoregion scale, the level of threat that it faces or its rare or unique *species** composition or other rare or unique characteristics, such as distinctiveness in terms of size, quality (particularly lack of human disturbance), or location within the *ecosystem's** geographic range (e.g., northern-most example of a particular *ecosystem**).

When assessing the potential for *HCV 3** specifically associated with *refugia**, there are two types which may have an *HCV** (in addition to seasonal refuges considered under *HCV 1**):

- Ecological *refugia**: Isolated areas which are sheltered from current changes (e.g. human threats or climatic events), and where plants and animals typical of a region may survive
- Evolutionary *refugia**: areas where certain types or suites of organisms persisted during a period when climatic events (e.g. glaciations) greatly reduced habitable areas elsewhere. Such *refugia** often support high overall *species** richness and significant numbers of *endemic species**

7.a.i. Guidance & Resources for HCV 3*:

In addition to the above overarching information sources identified in Section 3.a and those identified for *HCV 1**, rare *ecosystems**, *habitats** and *refugia** may also be assessed and identified using the following resources:

- Databases for rare, threatened, and endangered *ecosystems**

- EnviroAtlas: <https://catalog.data.gov/dataset/enviroatlas-rare-ecosystems-in-the-conterminous-united-states>
- NatureServe: <http://explorer.natureserve.org/> (*ecosystems** listed as “imperiled” or “critically imperiled” at global, national and/or state scales)
- IUCN Red List of Ecosystems: <https://www.iucn.org/resources/conservation-tools/iucn-red-list-ecosystems>
- Landscape Conservation Cooperative Network
- State Wildlife Action Plans
- Regional or *local* conservation** organization *landscape* conservation** plans
- *Experts** and *stakeholders**
 - State and federal natural resource agencies, including Natural Heritage Programs, or similar state agencies
 - Academic *experts**
 - Appropriate *local**, state, and regional professional organizations
 - NGOs with knowledge regarding rare, threatened, or endangered *ecosystems** (e.g., The Nature Conservancy; World Wildlife Fund)

Additionally, the following considerations suggest contexts with a higher likelihood of *HCV 3** occurrence. If any of the following contexts exist within or adjacent to the *Management Unit**, the *HCV** assessment should be more rigorous in its evaluation of whether rare *ecosystems**, *habitats** or *refugia** are, in fact, present within the *Management Unit**:

- *Ecosystems** or *habitats** that depend on highly localized *soil** types, locations, hydrology or other climatic or physical features, such as some types of limestone karst *ecosystems**, alpine *ecosystems**, or riverine *forests** in arid zones
- Roadless areas that are non-linear in configuration, and >500 acres in size or with unique characteristics
- *Ecosystems** or *habitats** that have been greatly reduced by human activities compared to their historic extent

A more rigorous assessment may entail additional efforts to acquire more detailed or finer-scale data regarding *ecosystem** occurrences and or presence of particular indicator *species**, more extensive consultation with *experts** and/or regional *conservation** organizations, and/or conducting field surveys (i.e., by state Natural Heritage programs or other plant community *experts**).

7.b. Managing and Monitoring HCV 3

In addition to the *Best Available Information** identified in Section 3.a, the best resources to provide strategies for maintaining or enhancing *HCV 3** identified through the above assessment will likely be those already identified for *HCV 1** and *HCV 2**. The best resources to

provide strategies and data for monitoring *HCV 3** identified through the above assessment will likely be those already identified for *HCV 2**.

Strategies to maintain *HCV 3** occurrences should consider: Strategies that fully maintain the extent and integrity of rare or threatened *ecosystems**, *habitats**, or *refugia**. Where strategies are intended to enhance *HCV 3** occurrences, they should consider: Measures to *restore** and/or develop rare or threatened *ecosystems**, *habitats**, or *refugia**.

8. HCV 4 – Critical Ecosystem Services

HCV 4 – *Critical* Ecosystem Services. Basic *ecosystem services** in *critical** situations, including protection of water catchments, flood control and attenuation, and control of *erosion** of vulnerable *soils** and *slopes**.**

8.a. Assessment, Identification, Management, and Monitoring of HCV 4

Assessing areas for *HCV 4** requires distinguishing those areas where the *ecosystem services** rise above the level of Principle 6 and warrant additional consideration under Principle 9. For the purposes of this *HCV** Framework, *critical* ecosystem services** include, at a minimum, watersheds surrounding surface sources of public drinking water, floodplains, and steep *slopes** rated high hazard for *slope** failure. *HCV 4** is focused on basic services of nature for human needs but may also include basic services of nature that protect other *HCVs**.

An *ecosystem service** is critical where a disruption of that service poses a threat of severe, catastrophic or cumulative negative impacts on the welfare, health or survival of *local communities**, on the functioning of important *infrastructure** (roads, dams, reservoirs, hydroelectric schemes, irrigation systems, buildings, etc.), or on other *HCVs**. The focus of this *HCV** is on provision of a *critical** service to the entirety, or a substantial portion, of the *local community**, not to individuals within that community. For example, an area that is important to the irrigation system of a single or limited number of farmers or ranchers would not reach the level of *HCV 4**, but if the system supplies irrigation for a substantial portion of a farming/ranching-dependent community, it would.

Identification and assessment of *HCV 4** should begin with the national considerations provided in Section 4.a and 4.b, and then follow the guidance below to determine if there are additional *HCV**.

8.a.i. Guidance & Resources for *HCV 4:**

In addition to the above overarching information sources provided in Section 3.a and those identified for *HCV 1**, *critical* ecosystem services** may also be assessed and identified, and management and monitoring strategies developed using the following resources.

Watersheds surrounding surface waters used for public drinking water

Identification & Assessment:

- Consultation with municipal, county, and regional water supply agencies or water districts
- Review of available maps and databases of public drinking water supplies. These are typically available from county or state government agencies

- Maps and databases related to *soil* erosion** potential or the potential for *slope** failure

Developing Management Strategies:

- Review of management plans prepared by municipal, county, regional, and state agencies, where available
- Adherence to *best management practices** for road construction and *forest** management to prevent *soil* erosion**

Monitoring:

- Monitoring for *soil* erosion** or *slope** failure through aerial surveys or ground visits
- Monitoring for *erosion** and sedimentation resulting in the discharge of sediment into public drinking water supplies

Slopes rated as high-hazard for slope* failure*

Identification & Assessment:

- Review of available maps and databases
- Consultation with appropriate municipal, county, regional, and state agencies

Developing Management Strategies:

- Review of management plans prepared by municipal, county, regional, and state agencies, where available
- Review of academic studies related to *forest** management on high-hazard *slopes**
- Adherence to *best management practices**, where available, for *forest** management and road construction on high-hazard *slopes**

Monitoring:

- Monitoring for culvert and road washouts
- Monitoring channel stability downstream of culvert installations
- Monitoring for minor *slope** failure that could cascade into major *slope** failure
- Monitoring for areas of exposed *soil** that are subject to *erosion**

Soils vulnerable to erosion**

Identification & Assessment:

- County *soil** surveys (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>).
- Consultation with county and state *soil** scientists

Developing Management Strategies & Monitoring:

- Similar to high-hazard *slopes**

Other ecosystem services, including flood control and attenuation*

Identification & Assessment:

- Review of available maps and databases, including FEMA flood maps

- Consultation with appropriate municipal, county, regional, and state agencies
- Special attention to extensive floodplain or *wetland* ecosystems** that are *critical** to mediating flooding or in controlling stream flow regulation and *water quality**

Developing Management Strategies & Monitoring:

- All of the above

Strategies to maintain *HCV 4** occurrences should consider: Strategies to protect any water catchments of importance to *local communities** located within or downstream of the *Management Unit**, and areas within the unit that are particularly unstable or susceptible to *erosion**. Examples may include *conservation zones**, *protected areas**, harvest prescriptions, chemical use restrictions, and/or prescriptions for road construction and maintenance, to *protect** water catchments and upstream and upslope areas. Where strategies are intended to enhance *HCV 4**, they should consider: *Management strategies* to restore* water quality** and quantity, and to maintain or enhance carbon sequestration and storage.

9. HCV 5 – Community Needs

HCV 5 – Community Needs. Sites and resources fundamental for satisfying the basic necessities of *local communities* or *Indigenous Peoples* (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or Indigenous Peoples.

9.a. Assessment, Identification, Management, and Monitoring of HCV 5

Identification of areas with *HCV 5** requires (per Criterion 9.1) engaging with *Native American** groups and *local communities** to determine if there are sites and/or resources fundamental for satisfying their basic necessities. This *HCV** Framework does not identify specific *HCV 5** at a national scale.

A site or resource is fundamental for satisfying basic necessities if the services it provides are irreplaceable (i.e. if alternatives are not readily accessible or affordable), and if its loss or damage would cause serious suffering or prejudice to *affected stakeholders**. Determinations of whether a resource is “fundamental” should be made through *engagement** with the communities or *Native Americans**. Basic necessities in the context of *HCV 5** may cover any or all of the provisioning services of the environment, including tangible materials that can be consumed, exchanged or used directly in manufacture, and which form the basis of daily life. The presence of this *HCV** is assessed at the scale of a community, whether *local** or *Native American**, not at the scale of an individual (i.e., whether any portion of the *Management Unit** provides resources that are essential for significant portions of a community, not just for one or a few individuals within a community).

In the United States, it is less common for a *Management Unit** to be fundamental for satisfying the basic necessities of *local communities**. Regardless, managers must engage with *local communities** to consider the potential for such situations. It is more likely that a *Management Unit**, or portion of a *Management Unit**, would be fundamental for satisfying the basic

necessities of *Native American** groups, such as livelihoods, health, nutrition, water and other medicines.

The information provided by *local communities** and/or *Native American** groups through *culturally appropriate** communication should be considered the *Best Available Information** for the *HCV** assessment and identification, as well as for developing management and monitoring approaches. This is particularly true for determining the ‘fundamentality’ of the resource. Where possible, management strategies should be developed collaboratively with representatives of the *local communities** and/or *Native American** groups. A *Free, Prior and Informed Consent** process is required (per Criterion 4.2) when *Traditional Peoples** or a *forest-dependent local community** has *legal** rights associated with the *HCV**, or (per Criterion 3.2) when a *Native American** group has *legal** or *customary rights** associated with the *HCV**. See the FSC US Guidance on *Culturally Appropriate Communication and Free Prior and Informed Consent* (US NFSS, Annex F).

10. HCV 6 – Cultural Values

HCV 6 – Cultural Values. Sites, resources, *habitats and *landscapes** of global or national cultural, archaeological or historical *significance**, and/or of *critical** cultural, ecological, economic or religious/sacred importance for the traditional cultures of *local communities** or *Indigenous Peoples**, identified through *engagement** with these *local communities** or *Indigenous Peoples**.**

10.a. Assessment, Identification, Management, and Monitoring of HCV 6

Determining areas to be considered as having *HCV 6** attributes includes identifying: a) places of *significant** cultural, archaeological or historical importance; and b) sites of *critical** importance to *local communities** and/or *Native American** groups. Information about the first will most likely be available through existing databases and appropriate agencies. The second is required to be identified through consultation with appropriate parties (per Criterion 9.1). While *engagement** with *local communities** and *Native Americans** for the purposes of *HCV 6** (and also *HCV 5**) can be combined with *engagement** with communities and *Native Americans** for the purposes of Criterion 2.2, Principle 3, and Criterion 4, *HCV 6** values are not limited to situations where communities or *Native American** groups have *legal** or *customary rights**.

Identification and assessment of *HCV 6** should begin with the national *HCVs** identified in Section 4.a and 4.b, and then follow the guidance below to determine if there are additional *HCV**.

The *Best Available Information** for assessment and identification of *HCV 6** for places that are globally or nationally *significant** cultural, archaeological or historical importance will likely be held in federal, state, and regional databases. Consultation with the State Historic Preservation Office, or similar agency, is also a valuable source of information, for assessment and identification, and also for developing strategies for management and monitoring. Additionally, many *Native American** groups have *Tribal** Historic Preservation Officers, and when available, these individuals should also be consulted.

The information provided by *local communities** and/or *Native American** groups through *culturally appropriate** communication is the *Best Available Information** for the *HCV** assessment and identification of sites of *critical** importance to these communities, as well as for developing management and monitoring approaches. This is particularly true for determining the “*criticality**” of the value. The assessment should consider:

- If the *Management Unit** includes sites that are critical to the cultural identity of a *local community** or *Native American** group, and/or that include cultural features created intentionally by humans, and/or
- If the *Management Unit** includes or occurs within an outstanding natural *landscape** that has evolved as a result of social, economic, administrative, and/or religious imperative

Where possible, management strategies should be developed collaboratively with representatives of the *local communities** and/or *Native American** groups.

A *Free, Prior and Informed Consent** process is required (per Criterion 4.2) when *Traditional Peoples** or a *forest-dependent* local community** have *legal** rights of access or *use rights** associated with the *HCV**, or (per Criterion 3.2) when a *Native American** group has *legal** or *customary rights** associated with the *HCV**. See the FSC US Guidance on *Culturally Appropriate Communication and Free Prior and Informed Consent* (US NFSS, Annex F).

11. HCV Checklist for Family Forest Management Units

11.a Background

This checklist provides *family forests** with guidance regarding *HCV** assessments. It includes resources that are appropriate for assessing national and local-scale *HCVs** on *family forest* Management Units**. By definition, *family forests** are managed at a smaller scale and/or *intensity** than other FSC-certified *Management Units** and, thus, may present less risk of negative impact to *HCVs**. In the case of some *HCVs**, the likelihood of occurrence on *family forests** may also be lower. The checklist approach accounts for these *Management Unit** characteristics by helping *family forests** focus their assessment on the most relevant resources for assessing the presence of *HCVs** that are most likely to occur.

11.b Directions for Family Forests

*Family forests** may choose to use this checklist as their preliminary *HCV** assessment. If *HCV** are not found using this assessment, no additional assessment is needed. If an *HCV** or a potential *HCV** is identified using this assessment, *family forests** are expected to:

- access the additional guidance in the main HCV Framework, particularly as it relates to management and monitoring of *HCVs**
- comply with the relevant requirements of Principle 9 for management and monitoring of *HCVs**

Use of this checklist entails:

1. Referencing the main HCV Framework to guide general understanding of what constitutes HCVs
2. Evaluating each information source provided below for the *family forest* Management Unit**
 - National HCV* checklist resources indicate that there is an HCV*
 - Local-scale HCV* checklist resources indicate a potential HCV*
3. Placing a checkmark in the box next to the information resource to indicate that the resource has been evaluated and used for *HCV* assessment*
4. If a potential *HCV** is identified as a result of addressing this checklist, use the resources and guidance in the main HCV Framework to further assess whether this potential does actually represent an *HCV**.

NOTE: The 'Local-scale HCV* checklist resources' included below are typically not of a resolution, scale and/or comprehensiveness adequate to conclusively demonstrate the presence of an HCV*. If no potential HCVs* are identified using these resources, then no further assessment is necessary (per Item 4 above). If a potential HCV* is identified, further assessment may conclude that there is an HCV* within the Management Unit*, but it may also conclude that there is not an associated HCV* within the Management Unit*.

If the Management Unit is found to intersect or is proximate potential HCV* identified through the checklist below, then the potential HCV* should be further assessed as HCV* using the guidance and resources in the main HCV* Framework.*

11.c HCV 1 – Species Diversity

HCV 1 – Species Diversity. Concentrations of biological diversity including *endemic species**, and *rare, threatened or endangered species**, that are *significant** at global, national, or regional levels.

Local-scale HCV* Checklist Resources

1. NatureServe Maps of Biodiversity Hotspots & Biodiversity Importance. *Family forests** should access both resources
 - <https://www.natureserve.org/conservation-tools/natureserve-hotspots-map>
 - <https://www.natureserve.org/conservation-tools/projects/map-biodiversity-importance>

2. *Management units** with federally-designated critical habitat for multiple *species** that are federally listed as threatened or endangered. *Family forests** should access both resources
 - <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>
 - <https://ecos.fws.gov/ipac/>

3. A county or watershed identified by NatureServe as having a globally, nationally, or regionally-significant concentration of species of conservation concern. *Family forests** should access both resources
 - <http://www.natureserve.org/conservation-tools/listed-and-imperiled-species-county-and-watershed/county-map>
 - <http://www.natureserve.org/watershed-map>

4. Areas identified through The Nature Conservancy's (TNC) Ecoregional Assessments as having significant concentrations of biodiversity. *Family forests** should access this resource if additional information is needed (i.e., beyond the above resources) to identify if further assessment and/or *HCV** designation is warranted.
 - <https://www.conservationgateway.org/ConservationPlanning/SettingPriorities/EcoRegionalReports/Pages/EastData.aspx>

5. Areas with concentrations of *endemic species** or *rare, threatened and endangered species**, or a single critically imperiled species, that were identified through:
 - the assessment of environmental values per Criterion 6.1

11.d HCV 2 – Landscape-Level Ecosystems and Mosaics

HCV 2 – Landscape-Level Ecosystems and Mosaics. *Intact Forest Landscapes** and large landscape-level *ecosystems** and *ecosystem** mosaics that are *significant** at global, national, or regional levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.

When reviewing the below resources, proximity of the Management Unit to potential HCV 2 should also be considered. Management Units* that are proximate to HCV 2 may be considered High Conservation Value Areas*, based on their contribution to buffering or otherwise protecting the HCV*.*

National HCV* Checklist Resources

1. Intact Forest Landscapes (4.a.i): Per Principle 9, *Intact Forest Landscapes** (IFL) shall be considered *HCV** (HCV 2).

- Global Forest Watch (www.globalforestwatch.org) and/or other data that are more recent, accurate and/or refined than those provided by Global Forest Watch, shall be used to identify *IFL**.
- 2. Wilderness Areas (4.a.iv): Wilderness areas enrolled in the National Wilderness Preservation System, or a similar state-level system, may meet the definition for HCV 2.
 - National Wilderness Preservation System (www.wilderness.net).

Local-scale HCV* Checklist Resources

1. Access at least one of the following entities to identify landscape-level ecosystems or ecosystem mosaics of conservation importance:
 - State and federal natural resource agencies. For example, the Washington Department of Fish and Wildlife (<https://wdfw.wa.gov/species-habitats>)
 - Heritage Programs. For example, the Michigan Natural Features Inventory (<https://mnfi.anr.msu.edu>)
 - Regional conservation organizations. For example, Landscape Conservation Cooperatives (<https://lccnetwork.org>)

11.e HCV 3 – Ecosystems and Habitats

HCV 3 – Ecosystems and Habitats. Rare, threatened or endangered *ecosystems**, *habitats** or *refugia**.

National HCV* Checklist Resources

1. Old Growth Forest (4.a.ii): All *old growth** forest (Type 1 and Type 2) is HCV* (HCV 3), and subject to the requirements of Principle 9.
 - Use the *old growth** definition (*Type 1** and *Type 2**), Indicator 6.8.2, and your knowledge of the *Management Unit** to determine if there is *old growth** present on the *Management Unit**.
2. Primary Forest (4.a.iii): All *primary forest** is HCV* (HCV 3), subject to the requirements of Principle 9.
 - Use the definition of *primary forest** and your knowledge of the *Management Unit** to determine if *primary forest** is present on the *Management Unit**.

Local-scale HCV* Checklist Resources

1. These resources and considerations for HCV 3 are the same for *family forests** as for other *Organizations**
 - Use the main *HCV** Framework, Section 7, to determine if there are other HCV 3 present on the *Management Unit**

11.f HCV 4 – Critical Ecosystem Services

HCV 4 – Critical Ecosystem Services. Basic *ecosystem services** in *critical** situations, including protection of water catchments and control of *erosion** of vulnerable soils and slopes.

Local-scale HCV* Checklist Resources

1. Access at least one of the following *experts** and *stakeholders** to identify watersheds surrounding surface waters used for public drinking water
 - State and federal natural resource agencies. For example, the Vermont Department of Environmental Conservation (<https://dec.vermont.gov/water/drinking-water>)
 - State and local municipal water management departments. For example, the Marathon County Conservation, Planning, and Zoning Department in (<https://www.co.marathon.wi.us/Departments/ConservationPlanningZoning/PlanningServices/StormwaterManagement.aspx>)
2. Access county soil surveys to assess soils vulnerable to *erosion**, including slopes rated as high hazard for slope failure
 - NRCS Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>)
3. Assess other *ecosystem services**, including flood control and attenuation
 - U.S. Army Corps of Engineers (<https://lrp.maps.arcgis.com/apps/webappviewer/index.html?id=c7f79152b1d746c181f50ea6eca6e69e>)

11.g HCV 5 – Community Needs

HCV 5 – Community Needs. Sites and resources fundamental for satisfying the basic necessities of *local communities** or *Indigenous People*s* (for livelihoods, health, nutrition, water, etc.), identified through *engagement** with these communities or *Indigenous Peoples**.

Local-scale HCV* Checklist Resources

1. If *Native American** groups are identified in Indicator 3.1.1, *engagement** is required to determine if related cultural interests need to be considered for *HCV** designation. However, this *engagement** may be informal.
 - Consider *rights**, resources, *lands and territories**, and/or sites identified per Criteria 3.1, 3.2 and 3.5, plus any other critical areas identified through the engagement.

2. If Local Communities are identified per Indicator 4.1.1, *engagement** is required to determine if related social interests need to be considered for *HCV** designation. However, this *engagement** may be informal. In the US context, the potential for these sites and resources to exist, and especially within a *family forest** *Management Unit**, is extremely low.
 - Consider critical areas identified through *engagement** per Principle 4

11.h HCV 6 – Cultural Values

HCV 6 – Cultural Values. Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of *local communities** or *Indigenous Peoples**, identified through *engagement** with these *local communities** or *Indigenous Peoples**.

National *HCV** Checklist Resources

1. Wilderness Areas (4.a.iv): Wilderness areas enrolled in the National Wilderness Preservation System, or a similar state-level system, meet the HCV 6 definition.
 - National Wilderness Preservation System (www.wilderness.net).

2. National Register of Historic Places (4.a.vi):
 - National Park Service's National Register of Historic Places web-based map search (<https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466>). This tool shows Public, non-restricted data depicting National Register spatial data processed by the Cultural Resources GIS facility.

3. UNESCO World Heritage Sites (4.a.vii):
 - United States of America World Heritage List (<https://whc.unesco.org/en/statesparties/us>)

Local-scale *HCV** Checklist Resources

1. State-level resources

- State Historic Preservation Office

2. If *Native American** groups are identified in Indicator 3.1.1, *engagement** is required to determine if related cultural interests need to be considered for *HCV** designation. However, the *engagement** may be informal

- Consider *rights**, resources, *lands and territories**, or sites per Criterion 3.1 and 3.5, plus any other significant sites identified through the *engagement**

3. If *Local Communities** are identified in Indicator 4.1.1, *engagement** is required to determine if related cultural interests need to be considered for *HCV** designation. However, this *engagement** may be informal. In the US context, the potential for these sites and resources to exist, and especially within a *family forest* Management Unit**, is extremely low.

- Consider critical areas identified through *engagement** per Principle 4

12. Pertinent Definitions

Critical	The concept of criticality or fundamentality in Principal 9 and <i>HCVs*</i> relates to irreplaceability and to cases where loss or major damage to this <i>HCV*</i> would cause serious prejudice or suffering to <i>affected stakeholders*</i> . An <i>ecosystem*</i> service is considered to be critical (<i>HCV 4*</i>) where a disruption of that service is likely to cause, or poses a threat of, severe negative impacts on the welfare, health or survival of <i>local communities*</i> , on the environment, on <i>HCVs*</i> , or on the functioning of significant <i>infrastructure*</i> (roads, dams, buildings etc.). The notion of criticality here refers to the importance and <i>risk*</i> for natural resources and environmental and socio-economic values. [Source: FSC-STD-01-001 V5-2]
High Conservation Value (HCV)	Any of the following values: <ul style="list-style-type: none"> • HCV 1: Species diversity. Concentrations of <i>biological diversity</i> including <i>endemic species*</i>, and <i>rare, threatened or endangered species*</i>, that are <i>significant*</i> at global, regional or national levels. • HCV 2: <i>Landscape*-level ecosystems*</i> and mosaics. <i>Intact Forest Landscapes*</i>, large <i>landscape*-level ecosystems*</i> and <i>ecosystem*</i> mosaics that are <i>significant*</i> at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring <i>species*</i> in natural patterns of distribution and abundance. • HCV 3: <i>Ecosystems*</i> and <i>habitats*</i>. Rare, threatened, or endangered <i>ecosystems*</i>, <i>habitats*</i> or <i>refugia*</i>.

	<ul style="list-style-type: none"> • HCV 4: <i>Critical* ecosystem services*</i>. Basic <i>ecosystem services*</i> in <i>critical*</i> situations, including protection of water catchments and control of <i>erosion*</i> of vulnerable <i>soils*</i> and slopes. • HCV 5: Community needs. Sites and resources fundamental for satisfying the basic necessities of <i>local communities*</i> or <i>Indigenous Peoples*</i> (for example for livelihoods, health, nutrition, water), identified through <i>engagement*</i> with these communities or <i>Indigenous Peoples*</i>. • HCV 6: Cultural values. Sites, resources, <i>habitats*</i> and <i>landscapes*</i> of global or national cultural, archaeological or historical <i>significance*</i>, and/or of <i>critical*</i> cultural, ecological, economic or religious/sacred importance for the traditional cultures of <i>local communities*</i> or <i>Indigenous Peoples*</i>, identified through <i>engagement*</i> with these <i>local communities*</i> or <i>Indigenous Peoples*</i>. <p>[Source: Based on FSC-STD-01-001 V5-2]</p>
High Conservation Value Areas (HCVA)	Zones and physical spaces which possess and/or are needed for the existence and maintenance of identified <i>High Conservation Values*</i> . [Source: FSC-STD-60-004 V2-0]
Landscape	<p>For the purposes of this Standard, the term “landscape” refers to a delineation of land area that captures similar environmental and ecological conditions including climate, geology, soils, water, and biology. USFS-defined Ecological Sections (Cleland 2005, update of Bailey/USFS) or smaller units are recommended for use to define <i>landscape*</i> for purposes of <i>RSA*</i> establishment and assessment. For many other purposes, “landscapes” will often occur at smaller <i>scales*</i> than ecological sections. In some contexts, “landscape” as used in this Standard simply refers to consideration of the area surrounding a particular site.</p> <p>In developing the description of “landscape” <i>The Organization*</i> considers the <i>Management Unit’s*</i> ability to influence and impact the surrounding area, as well as the potential for other owners to influence and impact the area that the <i>Management Unit*</i> falls within. Some larger <i>Management Units*</i> may represent the full <i>landscape*</i> that needs to be considered, while other typically smaller <i>Management Units*</i> may occur within a broader <i>landscape*</i> that should be considered.</p>
Precautionary principle/ approach	When the available information indicates that <i>management activities*</i> pose a threat of severe or irreversible damage to the environment or a threat to human welfare, <i>The Organization*</i> takes explicit and effective measures to prevent the damage and avoid the <i>risks*</i> to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of environmental values are uncertain. [Source: Based on Principle 15 of Rio Declaration on Environment and Development, 1992, and

	Wingspread Statement on the Precautionary Principle of the Wingspread Conference, 23–25 January 1998]
Significant	<p>For the purposes of Principle 9, <i>HCVs 1, 2 and 6*</i> there are three main forms of recognizing <i>significance*</i>.</p> <ul style="list-style-type: none"> • A designation, classification or recognized <i>conservation*</i> status, assigned by an international agency such as IUCN or Birdlife International; • A designation by national or regional authorities, or by a responsible national <i>conservation*</i> organization, on the basis of its concentration of <i>biodiversity*</i>; • A voluntary recognition by the manager, owner or <i>Organization*</i>, on the basis of available information, or of the known or suspected presence of a <i>significant* biodiversity*</i> concentration, even when not officially designated by other agencies. <p>Any one of these forms will justify designation as <i>HCVs 1, 2 and 6*</i>. Many regions of the world have received recognition for their <i>biodiversity*</i> importance, measured in many different ways. Existing maps and classifications of priority areas for <i>biodiversity* conservation*</i> play an essential role in identifying the potential presence of <i>HCVs 1, 2* and 6*</i>. [Source: FSC-STD-01-001 V5-2]</p>

13. Literature Cited

- HCV Resource Network. 2013. Common guidance for the identification of High Conservation Values: a good practice guide for identifying HCVs across different ecosystems and production systems. HCV Resource Network (<https://www.hcvnetwork.org/>).
- Keeton, W.S. 2006. Managing for late-successional/old growth characteristics in northern hardwood-conifer forests. *Forest Ecology and Management*, Vol. 235:129-142.
- Noss, R.F., E.T. LaRoe III, and J.M. Scott. 1995. *Endangered ecosystems of the United States: A preliminary assessment of loss and degradation*. U.S. Dept. Interior, National Biological Service, Washington, DC.
- Simončič, T., T.A. Spies, R.L. Deal, and A. Bončina. 2015. A conceptual framework for characterizing forest areas with high societal values: experiences from the Pacific Northwest of USA and Central Europe. *Environmental Management* 56:127-143.
- USEPA. 2015. Rare ecosystems in the conterminous U.S. *EnvironAtlas Fact Sheet* (www.epa.gov/eviroatlas/).

ANNEX L: Climate Change Toolkit

NOTE: As the content of this Annex has been significantly simplified and re-structured, it is not possible to present it with “tracked changes.” Please review the Draft 1 consultation materials if you wish to explore the changes.

Toolkit Introduction

This toolkit is designed to assist certificate holders but it is not normative.

While the FSC US National Forest Stewardship Standard Version 2-0 (NFSS) does require consideration for climate change, *The Organization** is not expected to develop its own scientific projections of climate change impacts. The NFSS is not explicit about the methods, format, or documentation of the evaluations and assessments. This toolkit is intended to assist *The Organization** in conforming with the NFSS by providing:

- A. A commonly accepted conceptual framework for managing *forests** to adapt to climate change
- B. Expectations for conforming with indicators that explicitly address climate change adaptation
- C. Examples of web-based sources for *Best Available Information** to assist with Item B
- D. Support for incorporating management for *forest** carbon (an ecosystem service)

A. Conceptual Framework for Managing Forests* to Adapt to a Changing Climate

The structure for managing *forests** for a changing climate in the NFSS is modeled after *forest** management concepts developed by the Northern Institute of Applied Climate Science (NIACS), a collaborative partnership among the United States Forest Service (USFS), universities, *conservation** organizations, and *forest** industry. NIACS developed a framework for climate-informed *forest** management known as the Adaptation Workbook. *The Organization** may use this framework to contextualize how managing for a changing climate can be integrated into *forest** management. Many of the following concepts are addressed by indicators in the NFSS.

The Adaptation Workbook process provides “structured flexibility” as managers work through a sequence of the following five broad steps (Swanston et. al., 2016).

1. Define area of interest, goals, and objectives
2. Assess climate change impacts and vulnerabilities
3. Evaluate *management objectives** given impacts and vulnerabilities
4. Identify adaptation options and tactics for implementation; options often include one or more of the following:
 - Resistance
 - Resilience
 - Transition
5. Monitor and evaluate effectiveness

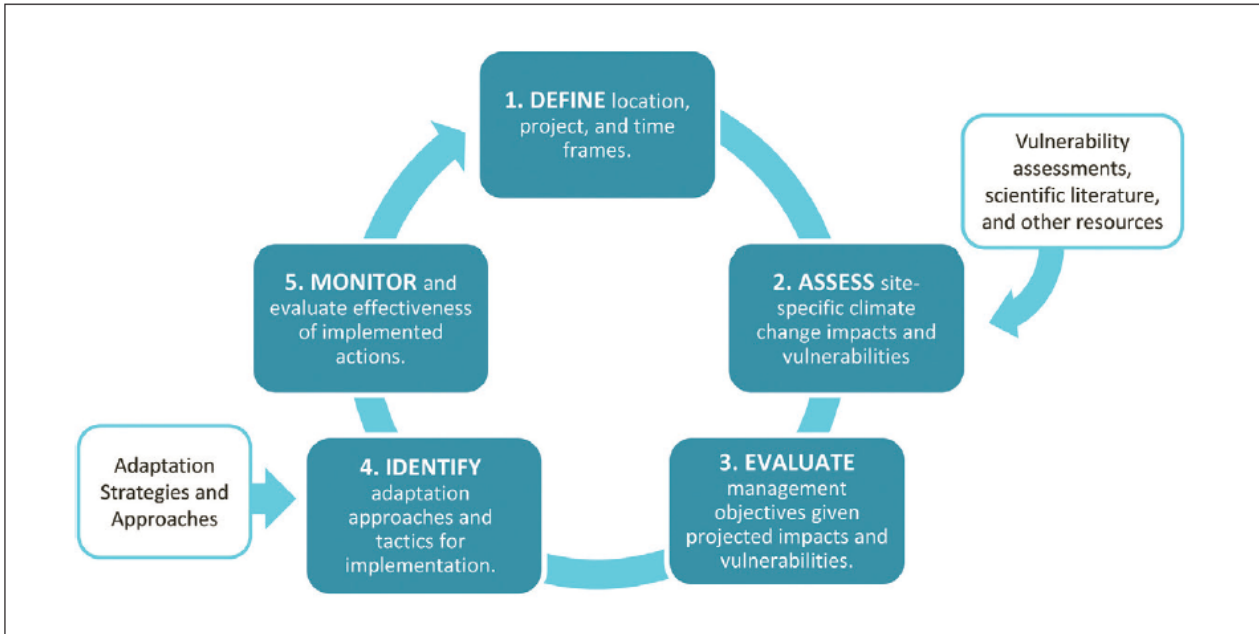


Figure 1. Adaptation Workbook Process. Source: Forest Adaptation Resources: Climate Change Tools and Approaches for Land Managers, 2nd Edition (Swanston et al. Ch. 5, page 75, 2016).

Below, NFSS *Indicators** are cross-walked to the steps in the Adaptation Workbook process.

Table 1. FSC US NFSS and Adaptation Planning Steps Crosswalk

Step 1: Define area of interest, goals, and objectives	Indicator 7.1.2
Step 2: Assess climate change impacts and vulnerabilities	Indicator 7.2.4
Step 2: Evaluate <i>management objectives*</i> given impacts and vulnerabilities	Indicator 7.2.4
Step 3: Identify adaptation approaches and tactics for implementation	Indicator 7.2.4/FF Indicator 7.2.1 Indicator 10.2.2 Indicator 10.9.2
Step 4: Monitor and evaluate effectiveness	Indicator 8.1.2

B. Indicators that Explicitly Address Climate Change Adaptation

Documentation of evaluations completed to achieve conformance with Indicators 7.2.4 (or FF Indicator 7.2.1), 8.1.2, and 10.2.2 will be important for demonstrating conformance. The documentation could be in the form of a written report, or (similar to the *management plan**) could be a collection of documents, reports, records, maps and other materials as applicable. If a collection, a written summary is recommended to identify materials within the collection and to describe the evaluation process. Documentation should include:

- Any *experts** consulted (e.g., name and affiliation)
- Other sources of *Best Available Information** used

- Findings/conclusions from the evaluations
- When applicable, descriptions of changes to *management objectives** and/or *management activities** implemented on the *Management Unit** for climate change adaptation
- When applicable, descriptions of changes to *management objectives** and/or *management activities** implemented on the *Management Unit** in response to monitoring results

Indicator 7.2.4 & Family Forest Indicator 7.2.1

Outputs from evaluations completed for conformance with Indicator 7.2.4 (or FF Indicator 7.2.1) should include an assessment of the climate change risks and vulnerabilities associated with the *management unit**, an indication of feasibility of meeting current *management objectives** (e.g., business as usual) and determination of any changes in *management objectives** and/or of any *climate change adaptation strategies** to be implemented. Evaluations should consider the following questions:

1. How are climatic conditions expected to change in the region, and on the *Management Unit** over the next 25-100+ years?
2. How are the *forest** (and non-*forest**) *ecosystems** in the region and on the *Management Unit** likely to respond to the expected changes in climatic conditions?
3. What are the risks, vulnerabilities, challenges, and opportunities associated with achieving the *Management Unit's** current *management objectives** in a climate changed future?
4. What are the potential impacts on environmental, social, and economic values, resulting from the expected changes to the forest *ecosystem** due to changes in climatic conditions?

Examples of potential impacts of climate change:

- Anticipated warmer winters or decreases in winter snowpack could lead to increased large herbivore populations (e.g., white-tailed deer) which may negatively impact forest regeneration.
 - Increased variability in precipitation trends could lead to flooding, posing *silvicultural** challenges, depending on the desired management objectives.
 - Increased rain-on-snow events may increase flooding and impact the transportation system and increase culvert failures.
 - Precipitation variability may increase drought periods and effect regeneration success and growth rates.
 - Longer growing seasons may make it possible to [favor more southern species*](https://www.fs.usda.gov/ccrc/education), <https://www.fs.usda.gov/ccrc/education>
 - higher concentrations of atmospheric carbon dioxide could increase tree growth rates.
5. What are potential *climate change adaptation strategies** to address the anticipated impact of climate change on *management objectives**? These strategies may be generally categorized as [resistance, resilience, or facilitated transition](#) (see also,

[assisted migration](#)). Examples for each category are provided, below (Swanston et. Al., 2016). Note that overlap exists between categories.

Resistance

- Sustaining fundamental ecological functions
 - Reduce competition for moisture, nutrients, and light
 - Restore or maintain fire in fire-adapted ecosystems
- Reduce the impact of biological stressors
 - Improve the ability of *forests** to resist pests and pathogens
 - Address new and existing *invasive species**
- Maintain or create *refugia**
 - Prioritize and maintain sensitive or at-risk *species** or *ecological communities**, especially those at the edge of their historic range
 - Establish artificial reserves for at-risk and displaced *species**

Resilience

- Increase *ecosystem** redundancy across the *landscape**
 - Expand the boundary of reserve areas to increase diversity
 - Manage *habitats** over a range of sites and conditions
- Promote *landscape* connectivity**
 - Reduce and avoid *landscape* fragmentation**
 - Maintain and create *habitat* corridors*
- Maintain and enhance genetic diversity
 - Use seeds, germplasm, and other genetic material from across a greater geographic range
 - Favor existing *genotypes** that are better adapted to projected future conditions

Facilitated Transition:

- Facilitate community adjustments through *species** transitions
 - Favor or *restore* native species** that are expected to be adapted to future conditions
 - Guide changes in *species** composition at early stages of *stand** development
 - Manage for *species** and *genotypes** with wide moisture and temperature tolerances
- Maintain and enhance genetic diversity
 - Use seeds, germplasm, and other genetic material from across a greater geographic range
 - Favor existing *genotypes** that are better adapted to projected future conditions

Indicator 8.1.2

Indicator 8.1.2 requires that *The Organization's** monitoring protocol include specific procedures to evaluate: a) how changes in the assessed potential impact of climate change related risks and vulnerabilities may affect achievement of *management objectives** and *desired future conditions**, and b) the effectiveness of *climate change adaptation strategies** implemented to address identified impacts (per Indicator 7.2.4).

Monitoring should help inform adjustments to future management to account for new information, conditions, and observations. The monitoring and evaluation should address the following concepts:

1. Ongoing/periodic review of new *Best Available Information** by periodically accessing sources of *Best Available Information**
2. Ongoing assessment of the implication of new *Best Available Information** for *The Organization's** achievement of current *management objectives**
3. Ongoing monitoring and assessment of the effectiveness of *climate change adaptation strategies**. Are the implemented *climate change adaptation strategies** working, or should new *strategies** be considered?

Examples of Best practices include consideration of the following factors to help improve the usefulness of monitoring (Swanston et. al., 2016)

- Identify an adaptation monitoring variable that is measurable and that will be useful to evaluate achievement. Examples include
 - Seedling survival rate
 - Overstory mortality rate
 - Diameter or basal area growth
- Identify a measurable criterion for evaluation. This is usually a meaningful value or threshold for success. Examples include
 - 70% seedling survival after 5 years
 - 3 square feet/acre average annual basal area growth over five years
- Describe the details of monitoring (e.g., data collected, frequency, and duration of monitoring)

Indicator 10.2.2

While they do not explicitly address climate change, many elements of Principle 6 and Principle 10 encourage proactive management aligned with the resistance and resilience *climate change adaptation strategies** described above. This includes resilience in the face of *natural disturbance events** that may increase in severity and/or frequency, such as [wildfire](#), extreme wind, and ice storms (Swanston et. al., 2016).

However, Indicator 10.2.2 is more aligned with the facilitated transition strategies. It provides flexibility to use *non-native species** of North American origin in limited situations when: a) non-local *genotypes** of *native species** are either not adequate for maintaining or enhancing local diversity as part of *climate change adaptation strategies**, or b) when *native species** are not an option due to disease or pest vulnerabilities.

Note that the appropriate scale of this strategy will be the stand-level. Attempts to apply this strategy across an entire *management unit** would likely result in numerous non-conformances throughout the standard.

Determination of whether to implement the flexibility provided in Indicator 10.2.2 should consider the following concepts:

1. Accessing *Best Available Information** at the region, state, and *local** level to determine how climate change is expected to change climatic conditions and how *forest** types and other *ecosystems** are expected to react.
2. Identification of *ecosystem** risks and vulnerabilities as they relate to *forest** types using information collected in #1, above
3. Identification of *ecosystem** risks and vulnerabilities as they relate to the *non-native species** being considered.

C. Examples of Best Available Information* for Conformance with Above Indicators

This is not an exhaustive list of potential sources and *The Organization** is encouraged to both explore regional specific sources and continually expand their use of resources as the knowledge surrounding the effects of climate change grows.

1. <https://www.fs.usda.gov/managing-land/sc>
The Forest Service provides tools, learning laboratories, and pilots encouraging the implementation and adoption of sustainable and climate resilience actions.
2. The [Climate Change Resource Center website](https://www.fs.usda.gov/ccrc/topics) (CCRC) (<https://www.fs.usda.gov/ccrc/topics>) provides national and regional resources for *forest** adaptation including original content, summaries of tools, adaptation frameworks and examples, and links to relevant scientific literature.
3. The [Adaptation Workbook](https://forestadaptation.org/), (<https://forestadaptation.org/>) for integrating [Adaptation Planning](#) into *The Organization's** management planning process.
4. The [Climate Smart Conservation](https://www.nwf.org/climatesmartguide) guide (<https://www.nwf.org/climatesmartguide>) led by the National Wildlife Federation, breaks adaptation planning into discrete, manageable steps.
5. The [Adaptation for Conservation Targets \(ACT\) Framework](https://pubs.er.usgs.gov/publication/70187337) (<https://pubs.er.usgs.gov/publication/70187337>) considers the effects of climate change in the development of management actions in support of specific *species**, *ecosystems**, or ecological functions. This framework prioritizes using *local** knowledge and does not rely on detailed projections of climate change or its effects.
6. Northern Institute of Applied Climate Science (NIACS) Adaptation Planning and Practices Course playlist, an adaptation concepts presentation, and short videos. (<https://www.youtube.com/c/northerninstituteofappliedclimatescience>)
7. [Forest Adaptation Resources: climate change tools and approaches for land managers, 2nd edition](#) (Adaptation Strategies and Approaches in Chapters 3 and 4; figures on page 31 and 32; Box 10 on page 34) (<https://www.nrs.fs.fed.us/pubs/52760>).
8. USDA Regional Climate Hubs: <https://www.climatehubs.usda.gov/commodity/forests-woodlands>. Provides national and regional information about impacts and adaptation to climate change.

9. Vulnerability assessments across the nation
<https://usfs.maps.arcgis.com/apps/Cascade/index.html?appid=f09164baef5d47d3ad728deaa1a28e7b>

D. Incorporating Management for Forest* Carbon

This standard identifies forest carbon as an environmental value and *ecosystem service** because managing forest carbon stocks is a critical component of mitigating increasing atmospheric carbon dioxide concentrations (Ontl et al., 2020). The standard addresses *forest** carbon sequestration and storage at the following Indicators: 5.1.1, 6.1.1, 6.3.2, and 8.2.1 (monitoring of environmental values).

Managing for *forest** carbon sequestration and storage, like other non-extractive *ecosystem services** (e.g., recreation), may require different forest management techniques, quantification methodologies, and balancing with competing *management objectives**. The tools and informational resources below are intended to provide forest managers with a starting point for managing with carbon sequestration and storage as a *management objective**. FSC US will provide additional guidance as part of supporting implementation of this standard.

Informational Resources

1. [Forest Management for Carbon Benefits](#) (USDA Climate Change Resource Center)
2. [Carbon Considerations in Land Management](#) (USDA Climate Change Resource Center)
3. [Carbon as One of Many Management Objectives](#) (USDA Climate Change Resource Center)
4. [Management of Forest Carbon Stocks](#) (USDA Climate Change Resource Center)
5. [Forest Soil Carbon and Climate Change](#) (USDA Climate Change Resource Center)
6. [Carbon Benefits of Wood-Based Products and Energy](#) (USDA Climate Change Resource Center)

Tools and Frameworks

1. [Forest management for carbon sequestration and climate adaptation](#) (USDA Climate Hub)
2. [Tools](#): “carbon” search results

Bibliography

Swanston, Christopher W.; Janiya, Maria K.; Brandt, Leslie A.; Butler, Patricia R.; Handler, Stephen D.; Shannon, P. Danielle; Derby Lewis, Abigail; Hall, Kimberly; Fahey, Robert T.; Scott, Lydia; Kerber, Angela; Miesbauer, Jason W.; Darling, Lindsay; Parker, Linda; St. Pierre, Matt. 2016. Forest Adaptation Resources: climate change tools and approaches for land managers, 2nd ed. Gen. Tech. Rep. NRS-GTR-87-2. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 161 p. <http://dx.doi.org/10.2737/NRS-GTR-87-2>