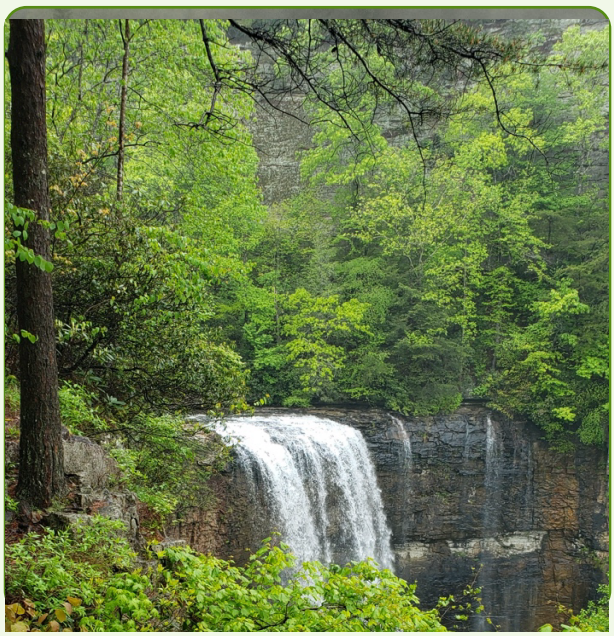

# DRAFT 6

Forest Stewardship Standard

# THE FSC FOREST STEWARDSHIP STANDARD FOR THE CONTERMINOUS UNITED STATES OF AMERICA

FSC-STD-USA-02-2025 EN

[Click to add Publish Date]

FSC FORESTS FOR ALL FOREVER™

| | |
|---|---|
| **Title:** | The FSC Forest Stewardship Standard for the conterminous United States of America |
| **Document code:** | FSC-STD-USA-02-2025 |
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[1] The transition period is the timeline in which there is a parallel phase-in of the new version and phase-out of the old version of the standard. Six (6) months after the end of the transition period, certificates issued against the old version are considered invalid.

## Version control

| Version | Description | Approval date |
|---|---|---|
| **V1.0** | FSC-US Forest Management Standard | 08 July 2010 |
| **V1.1** | FSC-US Forest Management Standard. Complete with Family Forest Indicators and Guidance and Supplementary Requirements for Lands Managed by the USDA Forest Service | 20 Sep 2018 |
| **V2.0** | The FSC Forest Stewardship Standard for the conterminous United States of America | TBD |

This standard is subject to the review and revision requirements as described in FSC-STD-60-006 (V1-2) EN.

**Photo cover**

Lula Falls (Credit: Tom Kain).

**NOTE ON THIS ENGLISH VERSION:**

This is the official version of the FSC Forest Stewardship Standard that is approved by FSC International Center, and it is available at ic.fsc.org. Any translation of this version is not an official translation approved by FSC International Center. If there is any conflict or inconsistency between the approved English version and any translated version, the English version shall prevail.

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# A Foreword

(Informative section)

## A.1 The Forest Stewardship Council (FSC)

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 Forest Stewardship Standard represents the United States adaptation of FSC's global Principles and Criteria (FSC-STD-01-001 V5-3) and International Generic Indicators (i.e., IGIs; FSC-STD-60-004 V2-0 and V2-1). 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.

## A.2 The FSC Principles and Criteria

This FSC US 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.

# B Preamble

## B.1 Objective

(Informative section)

The objective of this standard is to provide a set of requirements for:

1. The Organization to implement responsible forest management within their management unit and to demonstrate conformity.
2. FSC accredited certification bodies (CBs) to determine conformity against this standard as the basis for granting, maintaining or renewing forest management certification.

## B.2 Scope

(Normative section)

This standard shall be applied in the following scope:

| | |
|---|---|
| **Geographic region** | *Conterminous United States (which excludes Alaska, Hawaii, and the US territories)* |
| **Forest types** | **All forest types** |
| **Ownership types** | **All types of ownerships, including all *tribal**, non-federal *public**, private, and others (e.g., public university property, communal property), plus federal lands administered by the USDA Forest Service, Department of Defense, Department of Energy, and any other federal management units certified at the effective date of this standard.** |
| **Scale and intensity categories** (according to section 6 of FSC-STD-60-002) | **All categories of management units**<br>*/*<br>**All categories of management units, including provisions for small or low intensity managed forests (i.e., family forests), plantations and federal lands**<br>*(See section B.4 for the applicable SLIMF eligibility criteria for this geographic region)* |
| **Forest products** (according to FSC-STD-40-004a) | **Rough wood**<br>**NTFPs:** *(list of the NTFPs)*<br>• N1 Barks (e.g., birch, yellow poplar)<br>• N6.2 Grasses, ferns, mosses and lichens (e.g., sphagnum moss, fiddleheads)<br>• N6.3 Whole trees or plants (e.g., mistletoe, ramps/wild leeks)<br>• N6.3.1 Christmas trees<br>• N7.3 Resin<br>• N8.2 Medicinal plants and products (e.g., yaupon holly, witch hazel)<br>• N9.1 Nuts (e.g., chestnut, walnut)<br>• N9.4 Mushrooms, truffles (e.g., morels, oyster mushrooms) |

- N9.5 Fruits (e.g., juniper, salal)
- N10 Other NTFP, specifically:
    - Tree tops (e.g., spruce)
    - Branches/boughs (e.g., balsam, willow, holly, other ornamentals)
    - Flowers
    - Seeds
    - Roots
    - Leaves/Needles (e.g., pine straw, for tea)
    - Sap (e.g., for sap-based foods, for skin-care products)

The following forest products are only in-scope for this standard if they are produced from the *forest** through low intensity processing activities (otherwise, the forest product from which they are produced must first be FSC certified in conformance with this standard, and then the product that results from the higher intensity processing be FSC Chain of Custody certified in conformance with FSC-STD-40-004):

- N7.5 Essential oils
- N9.2 Tea
- N9.6 Sap-based foods (e.g., maple, hickory, birch)

## B.3 Responsibility for conformity

(Normative section)

**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 other legally defined entity. 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 and correct them.

**Group certification**: In the context of group certification, *The Organization** is represented by the *Group Entity**. The *Group Entity** may delegate responsibility for conformance with specific elements of the standard among the different actors in the group (e.g., *Group Entity**, members, contractors, etc.). In any scenario, the *Group Entity** retains ultimate responsibility for conformance to all applicable requirements of the standard. [Source: FSC-STD-30-005, V2-0]

***Managerial control****: In cases where discrete portions of the *management unit** are beyond the *managerial control** of *The Organization**, *The Organization** may excise these areas from the scope of certification. 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 conformance 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** shall 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 1.1 in a small number of *indicators** in Principle 6 and Principle 10 *. Conformance with the regional supplementary requirements is in addition to conformance with the associated main indicator. Numerous guidance statements throughout this Standard also provide regional specificity. The FSC US regional delineations may be found in Annex B of this Standard. 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 Annex B map may be considered a high-level guide, but final decisions about applicable region need to consider the ecological descriptions of the regions provided in Annex B – particularly when the *management unit** occurs in proximity to a regional boundary. *The Organization** is expected to finalize this determination with their *Certification Body**.

**Supporting documentation to the standard**: While this Standard forms the backbone of the *normative** requirements of the FSC US Forest Stewardship Standard, additional *normative** and non-*normative** documentation exists (both national and international), which is meant to provide direction and guidance regarding the implementation of the Standard. Refer to the Reference List in Section D of this Standard for a list of the relevant FSC Standards, policies, directives and guidance that apply as of the effective date of this Standard. Additional *normative** and non-*normative** documents, as well as adaptions or modifications of this Standard may become available over time.

Non-normative Guidance on ***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 objectives** 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 *forest** which harvests 95% of the *sustained yield harvest level** will require a significantly more sophisticated sustained yield model and monitoring to demonstrate conformance with Criterion 5.2 compared to a *forest** which harvests less.
- Due to the small *scale** of *family forests**, the requirement for *documentation** is decreased for some indicators since there is less risk of the management systems being implemented inconsistently than in larger *organizations*.*
- *Management units** with substantial presence of *environmental values**; inherently pose a greater risk of non-conformance compared to a *management units** with fewer *environmental values*.*

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*.*

## B.4 Additional notes on application of the standard

(Normative section)

***Indicators**** **With Limited Applicability:** Some *Indicators** in this Standard are only applicable to certain types of *management units**:

- *Indicators** that begin with the prefix "FF" are only applicable to *family forest* management units**. Section B.6 provides a description of the concept of *family forests** and relevant thresholds for use of Family Forest Indicators.
- *Indicators** that begin with the prefix "PL" are only applicable to *management units** that have plantations* within their boundaries. Section B.7 provides a description of the concept of *plantations** and further information about use of Plantation Indicators.
- *Indicators** with text which indicates that they are applicable to non-*family forest* management units** are intended to address issues that are not relevant to *management units** with decreased *scale*, intensity* and risk** (i.e., *family forest* management units*).*
- *Indicators** with text which indicates that they are applicable to *medium** and/or *large* management units** are intended to address issues that are only relevant to more extensive spatial areas, and therefore are not applicable to smaller *management units** (i.e., *family forest* management units** that meet the "small" eligibility criteria*).*

**Interim Indicators for Indicator 6.5.2, Indicator 6.5.7, FF Indicator 7.2.1 & Indicator 7.2.4:** Some *Indicators** in this Standard have a temporarily available alternate *Indicator** for certain types of *management units**:

- For *management units** that depended on *Representative Sample Areas** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1, certain *representative sample area** and *conservation areas network** related indicators in Criterion 6.5 may not be achievable within the normal transition time required for conformance.
- For *management units** that are FSC-certified prior to the effective date of this standard, the climate-change related *Indicators** in Criterion 7.2 of this Standard may not be achievable within the normal transition time required for conformance.

Required assessments and changes in management practices necessary for conformance with the above mentioned *Indicators** may be challenging and involve multi-year processes for some *Organizations**. In recognition of this, interim indicators have been identified for Indicator 6.5.2, Indicator 6.5.7, Item (9) of FF Indicator 7.2.1 and Indicator 7.2.4 to provide additional time, beyond the normal transition time period, to achieve initial conformance (i.e., by the *achievement date**).

The following points identify key aspects of the approach and conformance expectations for interim indicators:

- Interim indicators are in effect until the *achievement date** which is the date when *The Organization** must demonstrate conformance to the permanent *Indicator**. At this time the validity of the interim indicator expires.
- If conformance to neither the permanent *Indicator** nor the associated interim indicator is demonstrated during the time period prior to the *achievement date**, a non-conformance will be recorded.
- If conformance with the permanent *Indicator** is not fully demonstrated by the *achievement date**, a non-conformance will be recorded.
- Interim indicators shall be evaluated following FSC's normative documents related to assurance.

***Non-timber forest products****: Unless otherwise indicated, the expectations for *non-timber forest products** (i.e., NTFP), in all parts of this Standard, are intended for those that are commercially harvested or that are harvested in association with *legal** or *customary use rights** held by an entity other than *The Organization*.* This includes, but is not limited to *non-timber forest products** that are sold with an FSC claim. The Organization is not required to make an FSC claim on *non-timber forest products** that are sold commercially. To make a FSC claim on a *non-timber forest product**, the product must be identified as being within the scope of *The Organization's** FSC certification, and sold in conformance with Criterion 8.5. FSC claims on *non-timber forest products** are limited to products that are included within the scope of this standard. Information used to support *non-timber forest product** management, including *sustained yield harvest rates** (per Criterion 5.2) 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 assess impact and management. In all cases, *The Organization** must at minimum assure that the *species** populations from which the *non-timber forest products** are being derived are not being threatened and that there are no negative effects on other resources.

**Special management designations**: Multiple sections in this Standard call for designations of special management—among these are *High Conservation Value Areas**; *Representative Sample Areas**; *conservation zones/protection areas** 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**.

## B.5 Notes on the structure of the standard

(Normative section)

All *Principles**, *Criteria**, and *Indicators** contained in this document are considered normative elements, as are Annex A (Glossary), Annex C (Applicable Laws, Regulations & Agreements), Annex E (*Worker** Training; must be consulted), Annex K (*High Conservation Value** Framework; must be consulted), Annex M (Federal Lands Supplementary Requirements), identified portions of Sections A and B, and the scope, effective date and validity period provided on page 2. Applicability, Intent, and Guidance notes are not normative.

**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 primarily due to the US context; the definitions in this standard are applicable to this standard.

**Annexes,** with the exception of Annex A (Glossary), Annex C (Applicable Laws, Regulations & Agreements), Annex E (*Worker** Training; must be consulted), Annex K (*High Conservation Value** Framework; must be consulted), and Annex M (Federal Lands Supplementary Requirements), do not represent normative requirements, but instead provide guidance. *The Organization** is expected to consider the guidance provided in the non-normative annexes as they work to conform with associated *Indicators**, but *The Organization** is not required to conform to any specific aspects of these annexes.

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

**Guidance notes** and guidance in annexes are intended to help *The Organization*,* the *Certification Body** and others in using the standard (e.g., providing clarifications on the requirements in the indicators, explaining specific terms, providing examples for how conformance could potentially be demonstrated, etc.).

| **The compulsory nature of instructions found in the *Principles**, *Criteria**, *Indicators**, and guidance is defined as follows:**<br>[Adapted from *ISO/IEC Directives Part 2: Rules for the structure and drafting of International Standards*] | |
|---|---|
| **"shall":** | indicates requirements 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**.**

## B.6 Family Forests

(Normative section)

***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 or 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, alternate 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 or Low *Intensity** Managed Forest" (SLIMF) as defined in the FSC global system.

Any non-public *management unit** that meets the FSC definition of 'Small or 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 either:

| SLIMF eligibility criteria | Thresholds |
|---|---|
| **Small management units** | A *management unit** that is 1,000 hectares (2,470 acres) or less in size; OR |
| **Low intensity management units** | The rate of harvesting is less than 20% of the mean annual increment (MAI) within the total production forest area of the unit, AND<br>EITHER the annual harvest from the total production forest area is less than 5000 cubic meters,<br>OR the *average* annual timber 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 via either SLIMF eligibility criteria. Other non-federal public lands that are determined by the *Certification Body** to be within the definition of the 'Small' SLIMF eligibility criterion are also eligible. Non-federal public lands that are not within the 'Small' SLIMF eligibility criterion but are within the 'Low Intensity' criterion (as defined above) are not eligible. For non-federal public lands that are deemed eligible to use the Family Forest Indicators, all Indicators in the FSC US Forest Stewardship Standard that are identified as applicable only to public lands are also applicable to public lands using the Family Forest Indicators.

***Guidance and Terminology for Family Forest Indicators***

Conformance with each *family forest* Indicator** is expected for *family forest* management units** unless *The Organization** has communicated to their *Certification Body** that they wish to conform with the applicable main *Indicator** instead.

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 not required to be in conformance with *Indicators** that are designated as being specifically applicable to "non-*family forest** *management units**." The *Certification Body** is not ever expected to assess for conformance with these *Indicators** during audits of the *management unit**.

b. *The Organization** is required to be in conformance with *Indicators** that are provided as *family forest**-specific alternatives to main Indicators. The *Certification Body** is expected to assess for conformance with these *Indicators** during audits of the *management unit**.

c. *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**.

## B.7 Plantations

(Normative section)

***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, and in increasing the availability of FSC-certified materials to manufacturers and fostering more local sourcing of FSC-certified materials. 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. Therefore, FSC encourages existing *plantations** in the US to become FSC certified, when aligned with the conversion rules established in Criterion 6.10 and Criterion 6.11. Many of the existing *plantations** in the US were established on degraded agriculture lands, and therefore are not the result of *forest** *conversion**.

However, due to the *intensity** of management that occurs within *plantations**, this standard provides specific expectations for *management units** with *plantations**, in the form of "Plantation Indicators." Additionally, the standard expects a higher level of effort from *management units** with *plantations** that resulted from the direct conversion of *native ecosystems** to *plantation** toward maintenance and/or *restoration** of natural and semi-natural conditions than management units without *plantations**.

Annex I provides additional guidance for discerning *natural forests** (including *semi-natural forests**) from *plantations**.

***Applicability of Plantation Indicators***

Plantation Indicators represent a variance of a main 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 main *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 main *Indicator** (i.e., they are to be treated as mandatory

alternate *Indicators** to the main *Indicators**). If the main *Indicator** has any regional supplementary requirements, the Plantation Indicator(s) replace both the main *Indicator** and the regional supplementary requirement(s). 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 with a main *Indicator**, then the *plantation** portions of the *management unit** are to be assessed for conformance with the main *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** that have associated Plantation Indicators, in which case the *family forest *management units** must conform with the Plantation Indicators as described above.

If a *Criterion** includes Plantation Indicators that are additional (i.e., included at the end of the *Criterion**, and not with a specific main *Indicator**), any portions of the *management unit** that are identified as *plantation** are to be assessed for conformance with these Plantation Indicators in addition to the other *Indicators** in that *Criterion**.

While public lands with *plantations** may become certified, they are expected to restore *plantations** to semi-natural or natural conditions (per Plantation Indicator 6.6.11).

## B.8 Interpretations and disputes

(Normative section)

Interpretation requests regarding the FSC Forest Stewardship Standards are submitted directly to FSC for processing and approval. Approved interpretations are published in the international FSC website (see: INT-STD-60-006_01).

Disputes between stakeholders concerning certification requirements are managed by FSC dispute resolution procedure (see: FSC-PRO-01-008).

# C Context

(Informative section)

## C.1 General description of the context

***Ecological Context***

Forests dominate the northeastern, southeastern, great lakes, western, and mountain regions of the US. The forested areas are split nearly evenly by the central non-forested plains. Prior to European colonization, about 46 percent of the total land area of the US was forested. During the 19th century, about one-third of the forestland was cleared, primarily for agriculture. Overall forest area in the US has been relatively stable since the early 1900s, although there have been changes in forest character and regional variation in forest growth and loss patterns.

The *Northeastern forested region* includes *forests** that are primarily dominated by deciduous species. Conifers are found in these *forests**, but are not as dominant as deciduous trees. Forest composition in the northeastern forests is determined primarily by the climate, soils, altitude, and frequency of disturbance, all of which can vary greatly throughout this region of the US. This area includes the FSC US Northeast Region.

*Great Lakes forests* are dominated by conifers in the north, with more hardwoods mixed in as the lakes extend south. Glacial soils are found across the region in these forests and they are often poorly drained on conifer stands. Disturbance from fire, windthrow and insects or diseases are common in the great lakes. This area includes the FSC US Lake States Region.

*Southeastern forests* contain both pines and hardwoods. The highland and lower Mississippi Alluvial Valley portions of the region contain most of the hardwood dominated forest, while pines dominate the Piedmont and Coastal Plains portions of the region. Loblolly and shortleaf pine are the mostly commonly found pine species in the Southern United States. Mixed stands are also common. This area includes the FSC US Appalachian, Southeast, Mississippi Alluvial Valley, and Ozark-Ouachita Regions.

The *Western forests and mountain regions* are dominated by conifers. The climate can vary widely with fire playing an important role in forest development. The variable precipitation can result in both drought and floods. This area includes the FSC US Pacific Coast and Rocky Mountain regions.

***Ownership Context***

There are approximately 765 million acres of forested lands (as defined by the US Forest Service) in the United States and if *woodlands** (which also meet the FSC definition of “forest”) are also included, this number rises to 823 million acres. Of these (*forested** and *woodlands**), approximately 58% are privately owned (including approximately 34% categorized as family forest by the federal government, 20% categorized as corporate, 2% categorized as tribal and 2% categorized as other), and 42% are administered by public entities (including approximately 31% by the federal government, 9% by state governments, and 2% by local governments). Ownership varies significantly from one region to another.

***Timberland Production Context***

More than two-thirds of the forested lands in the United States are classified by the federal government as timberlands, i.e., lands that are producing or capable of producing crops of industrial wood (and are not protected or limited from doing this due to statue or regulation). Only approximately 13% of the timberlands have been planted, while the remainder are of natural origin. However, much of this planted

forest does not meet the definition of “plantation” used in this standard and is instead managed as *natural forest** (including *semi-natural forest**).

Approximately 14% of forested lands in the United States are classified as “reserved” by the federal government, including 8% that would be considered productive (if not reserved) and 6% that is considered unproductive.

The most recent data (2016) for forest removals indicate that approximately 14.4 billion cubic feet of material are removed from forests for products each year. In the most recent years of data (2011-2016), pulp wood outputs have exceeded saw log outputs for the first time.

***Indigenous Peoples Context***
(Adapted from the 2019 US Controlled Wood National Risk Assessment)

The federal government entered into more than 400 treaties with various Native American Nations from 1778 to 1871. After 1871, the United States instead used formal agreements between Native American Nations and the federal government as a replacement for treaties. Even though Congress ended treaty-making with tribes in 1871, the pre-existing treaties are still in effect and contain promises which bind the United States today. In total, almost 600 documents were signed between 1778 and 1911. In these treaties and other constructive arrangements between Native American Nations and the United States some lands were reserved for them and for their use. These are called reservations. Some provisions were included in the treaties for the Native American Nations to continue to use the land they ceded to the government by concluding the treaty. These usufructuary rights outside the reservations were the rights of the Native Americans to hunt, fish, and gather forest products off the land or to get access to sacred sites. Because they retained these rights in their treaties, these are referred to as reserved rights.

According to the United States Census Bureau, approximately 5.2 million people in the U.S., or 1.7% of the total population, identified as Native American or Alaska Native alone or in combination with another ethnic identity in 2010. In addition, there are roughly half a million persons that identify entirely or partly as Native Hawaiians. There are 574 federally recognized tribal entities in the United States, and many of these have federally recognized national homelands or ‘reserves’. Between 200-300 additional groups identify as historical Indigenous nations but have not been federally recognized, although some are in the recognition process and some have achieved recognition at the state level. Indigenous peoples are present in all regions of the US.

Indigenous peoples do not see a forest just as a source of economic resource, but as an integral element of their cultural being, and part of a Tribe’s self-determination is making or being an integral part of making the decisions on how the forest is managed so that these values are respected. Many tribes in the United States are engaging in sustainable forestry management practices, which are seen as models for forest management elsewhere, as is evidenced by the high-level of active participation in the Inter-Tribal Timber Council which was established in 1976. In fact, 300+ Tribes have forest lands and are engaged in forest management, and there has been an increase in Tribal Natural Resources Departments, those departments’ active participation in forest management, and foresters on tribal staff, including a 84% increase in tribes taking over forest management from the Bureau of Indian Affairs (who managed the forests in trust for the tribes), and a 60% increase in tribal staffing from 1991 to 2011.

Overall management of tribal lands has transformed from being completely dominated by Bureau of Indian Affairs (BIA) policies, which for forests emphasized timber production, to approaches that incorporate tribal visions and values for the land. The legislation that regulates the management of trust lands was revised in 2012, providing tribes with much greater decision-making power over what happens with those lands. Additionally, tribes are becoming much more active, not just in management of their own lands, but also the lands around their reservation and trust lands.

## C.2 Members of the Standards Development Group

***Current Members:***

- Mike Houser, PotlatchDeltic Corporation (Economic)
- David Williams, Williams-Sonoma, Inc. (Economic; new as of Sept 1, 2020)
- Lucas Dillinger, Domtar (Economic; new as of Sept 1, 2024)
- Jacob Walcisak, State of Wisconsin-Department of Natural Resources (Economic; new as of October 25, 2024)
- Rachel Baker, Washington Conservation Action (Environmental; new as of Sept 1, 2022)
- Stuart Hale, The Nature Conservancy (Environmental; new as of March, 2021)
- Phil Guillery, Individual Member (Environmental; new as of Sept 1, 2024)
- Ryan Temple, Sustainable Northwest Wood (Social; new as of Sept 1, 2023)Bill Wilkinson, Individual Member (Social; new as of Sept 1, 2024)
- Michael Conroy, Individual Member (Social; new as of Dec 3, 2024)

***Former Members:***

- Sophie Beckham, International Paper (Economic; left SDG as of August 31, 2020)
- Rolf Skar, Greenpeace USA (Environmental; left SDG as of August 31, 2020)
- Cece Headley, Northwest Forest Worker Center (Socia; left SDG as of August 31, 2020)l
- Tracy Stone-Manning, National Wildlife Federation (Environmental; left SDG as of May, 2021)
- Paul Vanderford, Sustainable Northwest (Social; left SDG as of August 31, 2021)
- Brent Davies, Ecotrust (Environmental; left SDG as of August 31, 2022)
- Tim Beyer, State of Minnesota (Economic, left SDG as of June 20, 2023)
- Linda Walker, World Wildlife Fund US (Environmental, left SDG as of August 31, 2023)
- Shoana Humphries, Green Value (Social, left SDG as of August 31, 2023)
- Keith Kintigh, State of Michigan-Dept. of Natural Resources (Economic; left SDG as of January 31, 2024
- Amanda Mahaffey, Forest Stewards Guild (Social; left SDG as of March 31, 2024)
- Sarah Billig, Mendocino Redwood Company, LLC (Economic; left SDG as of April 2, 2024)
- Ted Wright, Trust to Conserve Northeast Forestlands (Social; left SDG as of August 14, 2024)
- John Fenderson, Timberland Investment Group; Croatan Institute (Social; left SDG as of August 31, 2024)

## C.3 Experts advising the Standard Development Group

The technical working group was formed in 2018 to provide recommendations to the Standards Development Group from individuals with expertise in the different US regions and representing a broad variety of US stakeholders. Their role ended in December 2020. The members were as follows:

- Karen Brenner, Independent Consultant
- Steve Grado, Mississippi State University
- John Gunn, formerly University of New Hampshire, SIG-NAL
- Stuart Hale, The Nature Conservancy
- Daniel Hall, Guide Environmental
- Mark Heyde, formerly State of Wisconsin - Department of Natural Resources
- Brian Kittler, American Forests
- Mickey Rachal, RoyOMartin

- Christopher Reeves, formerly IKEA *(left TWG as of June, 2019)*
- Sean Ross, Lyme Timber Company

## C.4 Background information on the standard development

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. The Supplementary Requirements for USDA Forest Service Lands were incorporated into the standard (i.e., Version 1.1) in 2019.

In April 2017, 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 V2-1 EN International Generic Indicators; and
- FSC-PRO-60-006 V2-0 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 Forest Stewardship Standard.
2. **Adap**t: 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.

The Standard Development Group received the technical working group’s recommendations in 2020, and used them as the basis for Draft 1 of the FSC US Forest Stewardship Standard (Version 2). The Draft 1 standard was publicly consulted in two phases, during the fall of 2020 and spring of 2021, and then a Draft 2 standard underwent public consultation in 2022. During these consultations, all stakeholders were given the opportunity to comment on the standard. All received comments were considered, as well as outcomes from a testing process. The FSC US Forest Stewardship Standard V2 was approved by FSC International on [DATE] and by the Board of FSC US on [DATE].

## C.5 Going forward

FSC US aims to foster stability, clarity and support to certificate holders, certification bodies and all *stakeholders**. This Version 2.0 of the Standard includes additional requirements for certificate holders,

many of which were driven by the required alignment with the FSC member-approved framework of the Principles and Criteria and International Generic Indicators. FSC US is committed to identifying additional opportunities for streamlining and providing clarity, flexibility, and support for certificate holders.

This support will include development of additional guidance materials, training, decision support tools, and other resources identified as priorities by certificate holders, as time and FSC US resources allow.

Additionally, there are areas of work that remain outstanding, including review of standard elements that impact the ability to maintain and grow the certified landbase in the US, completion of a full review of the supplementary regional requirements, review of the role of various *interested stakeholders** throughout the standard, the expansion of the geographic scope of the standard to include Alaska and Hawaii, and the development of supplementary requirements and guidance to address issues of concern for lands managed by other federal agencies. FSC US is committed to communicating transparently about how changes or new material will be incorporated into the Standard.

FSC's *normative** requirements allow for targeted revisions that can be initiated within the five- year lifecycle of the Standard. Working closely with FSC's Policy & Performance Unit and with US *stakeholders**, FSC US will identify a timeline and strategy for implementing these identified modifications.

*The Organizations**, certification bodies, practitioners, and *stakeholders** may refer to the FSC US web site or contact FSC US to confirm which documents and versions are current and applicable to the implementation of this Standard.

## D REFERENCES

(Informative section)

The following referenced documents are relevant for the application of this standard.

For references without a version number, the latest edition of the referenced document (including any amendments) applies.

| | |
|---|---|
| **FSC-POL-20-003** | FSC Policy on the Excision of Areas from the Scope of Certification |
| **FSC-POL-30-001** | FSC Pesticides Policy |
| **FSC-POL-30-602** | FSC Interpretation on GMOs: Genetically Modified Organisms |
| **FSC-STD-20-007** | Forest Management Evaluations |
| **FSC-STD-30-005** | FSC Standard for Group Entities in Forest Management Groups |

| | |
|---|---|
| **FSC-PRO-01-008** | Processing Complaints in the FSC Certification Scheme |
| **FSC-PRO-30-006** | Ecosystem Services Procedure: Impact Demonstration and Market Tools |
| **FSC-DIR-20-007** | FSC Directive on FSC Forest Management Evaluations |
| **FSC-GUI-30-003** | FSC Guidelines for the implementation of the right to Free, Prior and Informed Consent (FPIC) |
| **FSC-GUI-60-005** | Promoting Gender Equality in National Forest Stewardship Standards |

**Note:** When applying this standard, consider relevant interpretations by inquiring with local FSC representatives (e.g., National Offices or representatives, or FSC's Policy & Performance Unit, if no national FSC presence exists), or your *Certification Body**. International interpretations are available through the FSC Document Centre (https://fsc.org/en/document-centre).

# E *PRINCIPLES*, CRITERIA** AND *INDICATORS**

(Normative section)

## *PRINCIPLE** 1: COMPLIANCE WITH LAWS

*The Organization** shall comply with all *applicable laws**, regulations and *nationally-ratified** international treaties, conventions and agreements.

**1.1. *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.**

1.1.1. *The Organization's* legal registration** with the *legally competent** authority is *documented** and unchallenged.

**Guidance:** Examples of evidence of "*legal registration** with the *legally competent** authority" 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).

**1.2. *The Organization** shall demonstrate that the *legal** status of the *Management Unit**, including *tenure** and *use rights**, and its boundaries, are clearly defined.**

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

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

Examples of *use rights** held by other parties 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 *rights**. *Long-term** lease agreements are generally considered to be *legal** agreements that are longer than 10 years in duration.

Documents do not have to be made *publicly available**.

1.2.2. *Management unit** and *use right** boundaries 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:** Generally, the goal is to ensure that *management activities** are implemented where intended, and this might not require fully comprehensive boundary designations. If the boundary is in dispute, it might not be possible to clearly identify boundaries; in which case the manager might need to postpone *management activities** that are planned within the disputed zone or that could have a negative impact on the ownership or *use rights** of others until the boundaries are established (e.g., marked by *legal** survey, mutual agreement with the adjacent property owner; see also Criterion 1.4).

**1.3. *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.**

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** could provide evidence of conformance.

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

**Guidance:** 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**. Therefore, as part of demonstrating conformance, *The Organization** might be asked to provide a list of the key laws and *administrative requirements** that typically apply to management operations and possibly a list of contact information for agencies that are responsible for local enforcement.

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

1.3.4. Payment of all applicable legally prescribed charges connected with forest management is made in a timely manner.

**Applicability**: This indicator is not applicable in situations in which *The Organization** is legally exempt from a particular fee, tax, or other charge, or if another entity is responsible for payment.

1.3.5. *Non-timber forest products** that are sold with an FSC claim and that are intended for human or animal consumption comply with all applicable *legal** and *administrative requirements** for hygiene and food safety.

**1.4. *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.**

**Guidance:** Examples of “unauthorized resource use” include: hunting; fishing; collecting; theft; dumping; and prohibited recreational use, including motorized vehicle use on closed roads, closed trails, and closed off-trail areas.

1.4.1. *The Organization** implements strategies intended to prevent illegal and unauthorized activities on the *management unit**.

**Applicability:** Unless it is their *legal** mandate, *The Organization** is not expected to play a law enforcement role, but \ignoring illegal activities on the *management unit** will most likely be considered a conflict with this Indicator.

**Guidance:** Examples of strategies to prevent illegal and unauthorized activities include: 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. Different types of strategies to monitor for and prevent illegal and unauthorized activities will likely be more or less effective depending on nature of the property and risk of specific types of activities.

FF 1.4.1. *The Organization** monitors and attempts to prevent illegal and unauthorized activities on the *management unit**.

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**.

**Guidance:** Examples of efforts to stop illegal or unauthorized activities include: cooperating with the appropriate authorities, especially when protection is the responsibility of regulatory bodies; notifying perpetrators and stakeholders; posting boundary notices; using gates; making periodic inspections; and reporting suspected illegal or unauthorized activities to the proper authorities.

FF 1.4.2. On non-*public land**, *The Organization** identifies any illegal or unauthorized activities that have occurred, and mitigates the situation.

**FF Applicability:** *Public land** *management units** are expected to demonstrate conformance with the main *indicator**.

**1.5. *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.**

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

**Guidance:** Conformance could be demonstrated by maintaining a list (or possibly just demonstrating awareness in lower risk situations) of applicable *federal laws**, *local laws**,* international laws and binding international agreements and completing an assessment to confirm relevance and compliance. A list of relevant laws, treaties, and agreements can be found in Annex C. Examples of potentially applicable international 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.

**1.6. *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**.**

**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 guidance for *The Organization’s** *dispute** resolution process.

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.

**Guidance:** The *means of verification** provided for Principle 2 *Indicators** might be useful for verifying/demonstrating conformance with Criterion 1.6 *Indicators**.

**FF Intent:** Working to resolve *disputes** is essential, regardless of the *scale** or *intensity** of the *management unit**. However, conformance with Indicators 1.6.3 and 1.6.4 is intended to be sufficient for ensuring that the primary purpose of this Criterion is addressed for *family forest** *management units**.

1.6.1. For non-*family forest** *management units**, *The Organization** prevents or identifies and resolves *disputes**, and provides *fair compensation** as applicable, in a manner consistent with their *dispute** resolution process (per Indicator 1.6.3).

1.6.2. For non-*family forest** *management units**, a system is in place to receive *disputes** related to:

1. *applicable laws** (per Criterion 1.6);
2. *disputes** from *workers** regarding loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization** (per Criterion 2.6);
3. *disputes** resulting from violations of *rights** held by *Native American** *Indigenous Peoples** (per Criterion 3.2); and
4. impact of *management activities** on affected *local communities** and other *affected stakeholders** (per Criterion 4.6)

1.6.3. The Organization has a *documented** *dispute** resolution process that is used in *good faith** to resolve *disputes** that can be settled out of court in a *timely manner**, and that:

1) is developed through *engagement** with *affected stakeholders** (per Criterion 1.6), *workers** working for *The Organization** (per Criterion 2.6) and *local communities** that may be affected by *management activities** (per Criterion 4.6);
2) identifies mechanisms for providing *fair compensation** to *workers** for loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization** (per Criterion 2.6), to *Native American** *Indigenous Peoples** for violations of *rights** that they hold (per Criterion 3.2), and to affected *local communities**, and *affected stakeholders** (per Criterion 4.6);
3) identifies mechanisms to address *disputes of substantial magnitude** that occur during the *dispute** resolution process, including requiring that operations are suspended in the area directly related to where the *dispute** exists and are not re-initiated until the *Certification Body** has determined that the operations would be in conformance with the Standard; and
4) has a *publicly available** summary of the *dispute** resolution process.

FF 1.6.3. *The Organization** seeks to resolve *disputes** out of court and in a *timely manner**, and suspends operations if *disputes of substantial magnitude** occur, for *disputes** that are related to:

1) *applicable laws** (per Criterion 1.6);
2) *disputes** from *workers** regarding loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization** (per Criterion 2.6);
3) *disputes** resulting from violations of *rights** held by *Native American** *Indigenous*

*Peoples** (per Criterion 3.2)*;* and

4) impact of *management activities** on affected *local communities** and other *affected stakeholders** (per Criterion 4.6).

**FF Guidance:** Additional guidance regarding *disputes of substantial magnitude** and suspension of operations is provided in Annex D.

1.6.4. An up-to-date record of *disputes** is maintained and includes:

1) steps taken to resolve *disputes**;

2) outcomes of *dispute** resolution processes; and

3) unresolved *disputes** and the reason(s) they are not resolved.

**Applicability:** If no *disputes** have been received by *The Organization**, and *The Organization** has not triggered any *dispute** resolution processes, Indicator 1.6.4 is not applicable.

FF 1.6.4. *The Organization** documents *disputes** that have occurred and the steps taken to resolve them.

**1.7. *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.**

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

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

**1.8. *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.**

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** written policy statement endorsed by an individual with authority to implement it that includes a commitment to manage the *management unit** in conformance with FSC standards and policies.

FF 1.8.1. *The Organization** demonstrates, through formal or informal means, a *long-term** commitment to adhere to the FSC *Principles** and *Criteria** and related FSC and FSC US policies.

**FF Guidance:** Informal means for demonstrating a *long-term** commitment include demonstrating that the management plan, site prescriptions, other future planned activities or documented goals, objectives and/or desired future conditions are aligned with the FSC *Principles** and *Criteria** and related FSC and FSC US policies.

## *PRINCIPLE** 2: *WORKERS'** RIGHTS AND EMPLOYMENT CONDITIONS

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

**Guidance:** The definition of "*worker**" is integral to accurate interpretation of the Principle 2 *Criteria** and *Indicators**.

The indicators in this *Principle** are intended to achieve similar outcomes for all *workers** that are in scope for the associated *Criterion**. However, *The Organization** might find it necessary for legality or other reasons to demonstrate that the desired outcomes were achieved in different ways for different categories of *workers** (e.g., employees of *The Organization**, contractors, employees of the contractor). The *means of verification** included at the end of this *Principle** represent some of the ways that conformance with the *Indicators** of Criteria 2.1 to 2.5 could be confirmed by a *Certification Body** for different categories of *workers**, but are not comprehensive.

Activities, including timber harvest and loading of timber materials for transport, which are associated with achieving *management objectives** within the *management unit**, but that occur after ownership of timber materials has been transferred to another entity, are still "*management activities**," as defined. Use of the terminology, "contracts and other legal agreements" in this *Principle** is intended to include the legal agreements (e.g., purchase/sales agreements) that cover these activities.

Establishment of contracts and other legal agreements that result in the implementation of *management activities** with entities that have been verified by a non-FSC third-party certification scheme (such as a certification of good labor practices) could be part of demonstrating desired outcomes for some or all Principle 2 *indicators**, as long as the entity is able to provide the *Certification Body** (upon request) with evidence that the certification scheme addresses the applicable elements of the *Indicator(s)**.

If *The Organization** contracts or establishes other legal agreements with other entities to implement *management activities**, *Certification Bodies** might reach out to these entities with questions and requests for information and/or staff interviews.

**2.1. *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**.**

**Guidance:** All elements of Criterion 2.1 are covered by applicable *federal laws** (see Annex C for the most relevant legislation).

2.1.1. C*hild labor**, including *hazardous work**, shall not be used.

2.1.2. All forms of *forced or compulsory labor** shall be eliminated.

**Guidance:** The definition of *forced or compulsory labor** provides examples of practices that are indicative of *forced or compulsory labor**.

"*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.

2.1.3. There shall be no *discrimination** in *employment and occupation**.

2.1.4. *Workers'** freedom of association and the right to *collective bargaining** shall be respected.

2.1.4.1 *Workers** are able to establish or join *worker organizations** in accordance with applicable *federal laws** and *local laws**.

2.1.4.2 The *rights** of *workers** to engage in lawful activities related to forming, joining, or assisting a *workers' organization**, or to refrain from doing the same are respected, and *workers** are not discriminated against or punished for exercising these *rights**.

2.1.4.3 Negotiations with lawfully established *workers' organizations** and/or duly selected representatives are completed in *good faith** and with the best efforts to reach *collective bargaining** agreements.

2.1.4.4 *Collective bargaining** agreements are implemented where they exist.

**2.2. *The Organization** shall promote *gender equality** in employment practices, training opportunities, awarding of contracts, processes of *engagement** and management activities.**

2.2.1. G*ender equity** is promoted and gender *discrimination** is prevented in employment practices, training opportunities, awarding of contracts and other legal agreements that result in implementation of *management activities**, 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. Promotion of *gender equity** in these processes could be demonstrated through evidence of efforts to seek out a diversity of voices and perspectives that are then involved, heard and considered in *engagement** activities.

FF 2.2.1. *The Organization** complies with applicable law in avoiding *discrimination** based on gender (including *gender identity**) in employment practices, training opportunities, awarding of contracts and other legal agreements that result in implementation of *management activities**, processes of *engagement**, and implementation of *management activities**.

2.2.2. Parental leave practices follow applicable *federal laws** and *local laws**. If *federal law** or *local law** does not apply, *The Organization's** policy provides a minimum 6 weeks of leave for parents following the birth of a child.

2.2.3. Confidential and effective mechanisms exist for preventing, reporting and addressing cases of sexual harassment and *discrimination**, workplace harassment or bullying and *The Organization** follows all applicable *federal laws** and *local laws** regarding harassment and *discrimination**.

FF 2.2.3. *The Organization** follows all applicable *federal laws** and *local laws** regarding harassment, *discrimination**, and associated reporting.

2.2.4. For non-*family forest** *management units**, individuals of all genders (including *gender identities**), with consideration of experience, performance, qualifications, skills, and responsibilities, are paid equally when they do the same work, using a direct and secure method of payment.

**2.3. *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.**

**Guidance:** Significant applicable *federal laws** and regulations that align with Criterion 2.3 *Indicators** include: Occupational Safety and Health Act, Public Law 91-596; OSHA Act General Duty Clause: Section 5(a)(1; OSHA 29 CFR Part 1910--1910.266; Fair Labor Standards Act;

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Agricultural Worker Protection Standard (WPS); Title 40 Part 170; and The Immigration and Nationality Act (INA).

2.3.1. Applicable *federal laws** and *local laws** covering health and safety of *workers** are met or exceeded, including demonstrating:

1) Safe workplace conditions;
2) Use of personal protective equipment;
3) Recordkeeping of injuries and illnesses;
4) Establishment, updates and communication of safety procedures; and
5) Improved procedures following major incidents and accidents.

2.3.2. Records of workplace accidents and injuries that occurred within the *management unit** demonstrate that the frequency and severity of accidents over time remain low or are declining.

**2.4. *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**.**

2.4.1. Wages paid by *The Organization** meet or exceed both:

1) the legal* minimum wage rates, and
2) the prevailing wages for the *forest** industry in the area surrounding the *management unit**. If these wages cannot be determined, the finest scale applicable data reported by the US Bureau of Labor Statistics for "Farming, Fishing and Forestry" wages are used.

2.4.2. Wages, salaries and contracts paid by *The Organization** are paid on time.

2.4.3. For non-*family forest** *management units**, when negotiating contracts and other legal agreements that result in the implementation of *management activities**, *The Organization** negotiates in *good faith** and considers factors that affect costs for the entity with whom the agreement is established, including expectations for conformance with the Standard, investment in equipment and other factors such as economic inflation, remoteness of the work site, and difficulty of the work.

**2.5. *The Organization** shall demonstrate that *workers** have job-specific training and supervision to safely and effectively implement the *Management Plan** and all management activities.**

2.5.1. Consistent with Annex E, *workers** have the training and supervision necessary to safely and effectively implement the *management activities** for which they are responsible and contribute to implementation of the *management plan**.

2.5.2. For non-*family forest** *management units**, records of *worker** training per Indicator 2.5.1 are maintained.

**2.6. *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**.**

**Intent:** If a *dispute** is received from a *worker** regarding loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization**, the *Indicators** of Criterion 1.6 address the expectations of this Criterion. Annex D provides guidance for *The Organization's** *dispute** resolution process.

**Non-Normative Guidance on *Means of Verification** (for *Indicators** in Criteria 2.1 through 2.5)**

The following *means of verification** (i.e., verifiers) are provided as examples of the kinds of evidence/information that could be used by a *Certification Body** to confirm conformance with the *Indicators** in Criterion 2.1 through Criterion 2.5. Not all of these verifiers will be necessary to confirm conformance, and *The Organization** might be able to provide the *Certification Body** with other kinds of evidence/information that would be adequate.

*The Organization** might also find the kinds of information described in the verifiers useful for consideration during internal audits.

Due to the different categories of *workers** needing consideration, a suite of different types of verifiers might be necessary to verify conformance with a particular *Indicator** for all applicable *workers**. However, in some situations (e.g., Criterion 2.1) it might be possible to verify conformance for all *workers** in the same way (although it will likely still require consideration of multiple verifiers).

For all *workers**:

- Field observations made by the *Certification Body**
- Interviews with *workers** (in-person or other forms) conducted by the *Certification Body**
- Consultation with *stakeholders** conducted by the *Certification Body** and/or *The Organization**
- Publicly available reporting data from governmental organizations, research institutes, or other sources that are verifiable (e.g., data which demonstrates a lack of a wage gap between genders or low levels of safety incidents within the vicinity of the *management unit**, or demonstrates an absence of violations of *applicable laws**)
- Records of *disputes** (per Criterion 1.6)
- Partnerships between *The Organization** and socially-focused non-governmental organizations or other organizations that support whistle-blowers
- Partnerships between *The Organization**, unions and/or regulatory bodies that result in progressive compliance (i.e., positive progress on labor *rights** and employment conditions over time)

For contractors and/or employees of contractors:

- Contracts or other legal agreements between *The Organization** and entities that have been verified by a non-FSC third-party certification scheme which addresses the applicable elements of the *Indicator(s)**
- Contracts or other legal agreements between *The Organization** and entities that will be *implementing management activities** that demonstrate a commitment to treat all *workers** in compliance with *applicable law**, in combination with an effective process to monitor and enforce contract compliance
- Contracts or other legal agreements between *The Organization** and other entities to implement *management activities** that address the elements of this Criterion, in combination with an effective process to monitor and enforce contract compliance

- Profiles or assessments of entities with whom *The Organization** contracts or establishes other legal agreements to implement *management activities** using publicly available data and/or other verifiable external data sources

For employees of *The Organization**:

- Documentation held by *The Organization** (e.g., correspondence with *workers**, *worker organizations**, government agencies or *stakeholders**, meeting minutes, policies/procedures, training records, incident records, employment records)
- Anonymous surveys of employees regarding working conditions

## *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.

**Applicability:** For FSC-certified *tribal** lands (i.e. lands managed by *Native American** *Indigenous Peoples**), Criterion 3.1, Criterion 3.2 (with the exception of Indicator 3.2.5), and Criterion 3.3 are only applicable if there are other *Native American** *Indigenous Peoples** that may be affected by *management activities** associated with the *management unit**.

Any *traditional peoples** that are federally-recognized are to be treated as equivalent to *Native American Indigenous Peoples** for the purpose of Principle 3 and the remainder of this standard (per FSC Principles & Criteria; FSC-STD-01-001 V5-3). Those that are not federally-recognized are to be treated as equivalent to *local communities** for the purpose of Principle 4 and the remainder of this standard, with the exception of Criterion 4.2 and Criterion 4.8 which include separate expectations for *traditional peoples**.

**Guidance:** The definition of "*customary rights**" is essential for accurate interpretation of the relevant indicators of Principle 3.

Annex F provides guidance and resources for *engagement** with *Native American** *Indigenous Peoples**, identifying *rights**, and the steps of a *Free, Prior, and Informed Consent** process.

**3.1. *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.**

3.1.1. *The Organization** identifies *Native American** *Indigenous Peoples** that may be affected by *management activities** associated with the *management unit** using *best available information**. Identification of these *Indigenous Peoples** is 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, the remainder of this *Principle** may be inapplicable, with the possible exception of Criterion 3.6.

**Guidance:** "*Native American** *Indigenous Peoples** that may be affected by *management activities** associated with the *management unit**" includes tribes previously removed from the area.

FSC US will work to support identification of *Native American** *Indigenous Peoples** that may be affected by *management activities** on FSC-certified *management units** and support identification of the best contact(s) for these *Indigenous Peoples**. Contact FSC US for more information.

3.1.2. Through *engagement** with the *Native American** *Indigenous Peoples** identified per Indicator 3.1.1, *The Organization**:

1) identifies and documents *legal** and/or *customary rights**, including *contested rights**, applicable to the *management unit** that they hold or claim
2) works to understand which resources and *lands and territories** within the *management unit** are important to them, but for which they do not hold *rights**, and how *management activities** may positively or negatively affect these values.

**Intent:** In the context of Indicator 3.1.2, *rights** that are "held" are those that are verifiable as *legal** and/or *customary rights** (see Step 4 in Annex F). *Rights** that are "claimed" per Indicator 3.1.2, are limited to contested *rights**.

**Guidance:** *Legal** rights include treaty rights. *Contested rights** are limited to situations where the complainant has already taken formal steps to have their *rights** recognized, such as filing *legal** documents in court or a formal communication to *The Organization** describing the *right** and the evidence that supports its existence. This would include any *rights** for which *The Organization** is in litigation.

Direct *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 are examples of next best sources of information.

FF 3.1.2. Through formal or informal means, *The Organization** identifies *rights** held by *Native American** *Indigenous Peoples** identified per Indicator 3.1.1 and then confirms the identified *rights** through *engagement** with the applicable *Native American** *Indigenous Peoples**.

**FF Guidance:** Examples of formal means include identification of rights documented through deeds or other legal documents or through information available from applicable state/local government agencies. Examples of informal means include identification of rights through communication with long-term residents of the area or through family history/knowledge.

**3.2. *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**.**

**Applicability:** The scope of Criterion 3.2 is limited to *legal** *rights** and *customary rights** (i.e., it does not include contested *rights**).

**Intent:** *Free, Prior, and Informed Consent** is required when *The Organization's** *management activities** potentially 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**.

**FF Intent:** Respecting *rights** held by *Native American** *Indigenous Peoples** is essential, regardless of the *scale** or *intensity** of the *management unit**. However, conformance with Indicators 3.2.2 and 3.2.4 are intended to be sufficient for ensuring that *rights** are respected on *family forest** *management units**.

3.2.1. For non-*family forest** *management units**, *Native American** *Indigenous Peoples** identified per Indicator 3.1.1 are *engaged** during *management plan** development and revision to promote protection of their *rights** identified per Indicator 3.1.2, and to provide input into *management activities** that may affect resources and *lands and territories** identified per Indicator 3.1.2 in which they have an interest, but for which they do not hold *rights**.

**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** and/or *customary rights**.

**Guidance:** The "*Culturally Appropriate** Communication with *Native American** *Indigenous Peoples**" section of Annex F provides guidance for how to handle situations when initial engagement with a *Native American** *Indigenous Peoples** does not result in a response.

3.2.2. If *management activities** may affect *legal** *rights** or *customary rights** identified per Indicator 3.1.2, *The Organization** *engages** 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 *rights holder**. If the *rights holder** 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.

3.2.3. For non-*family forest** *management units**, where consent has not yet been received from the *rights holder**, *The Organization** and the *rights holder** are *engaged** in a mutually agreed-upon *Free, Prior, and Informed Consent** process that is advancing in *good faith** and with which the *rights holder** is satisfied. If the *rights holder** 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.

3.2.4. 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 applicable *Indicators** of Criterion 1.6.

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.

**3.3. 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.**

3.3.1. Where control over *management activities** has been granted per Criterion 3.2 through *Free, Prior, and Informed Consent** based on *engagement**, a *binding agreement** contains the duration, provisions for renegotiation, renewal, termination, economic conditions and other terms and conditions. The agreement may be made verbally or in writing at the discretion of the *Indigenous Peoples**. Records of agreements are maintained.

**Intent:** These agreements do not require a complete delegation of control over *management activities**. The purpose of the agreement is for *The Organization** to address the impact of *management activities** on the customs, values, sensitivities and ways of life of *Indigenous Peoples**. In the context of Indicator 3.3.1, "Control over management activities" is intended to reflect that *The Organization** has been provided the *right** to implement *management activities** within the sideboards established through the *Free, Prior, and Informed Consent** process and documented in the agreement.

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

**Guidance:** It would be valuable to discuss what monitoring will be implemented and how the *rights holder** will be engaged in the monitoring as part of the *engagement** that occurs during the *Free, Prior, and Informed Consent** process.

**3.4. *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).**

3.4.1. *The Organization** demonstrates a commitment to *upholding** the *rights**, customs and culture of *Native American** *Indigenous Peoples** identified per Indicator 3.1.1, as defined in UNDRIP and ILO Convention 169, through compliance with *federal laws** outlined in Sections 1.1, 3.2, 4.2 and 4.3 of Annex C and conformance with the *Indicators** in Criterion 1.6 and the *Indicators** in the other Principle 3 *Criteria**.

3.4.2. Where evidence that *rights**, customs and/or culture of *Native American** *Indigenous Peoples** per Indicator 3.4.1 , as defined in UNDRIP and ILO Convention 169, have been violated by *The Organization**, the situation is documented, including steps taken to resolve the violation(s) aligned with the *dispute** resolution process per Criterion 1.6.

**3.5. *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.**

**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 *rights holder** is critical (and required per the *Indicators** of this *Criterion**) and it is not adequate to simply buffer an area without attempting to *engage** with the *rights holder**. Indicator 3.5.2's Guidance addresses situations where the *rights holder** does not wish to *engage**.

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 for which these *Native American** *Indigenous Peoples** hold *legal** and/or *customary rights**.

**Guidance:** Examples of “sites of special cultural, ecological, economic, religious, or spiritual significance” include: 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 culturally and/or economically important materials.

Direct *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 are examples of next best sources of information.

FF 3.5.1. *The Organization** maintains a list of sites of current or traditional cultural, archaeological, ecological, economic or religious significance that have been identified on the *management unit** by state conservation agencies and/or *tribal** governments/organizations and that could be affected by *management activities**. If state conservation agencies are unable to provide a list of sites, *best available information** is used to identify sites.

**FF Guidance:** *Best available information** could include personal/family knowledge and/or engagement conducted per Criterion 3.1. 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.

3.5.2. Through *engagement** with the *rights holders**, *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. The confidentiality of sensitive *tribal** knowledge is maintained in keeping with *applicable laws** or at the behest of *Native American** *Indigenous Peoples**.

**Applicability:** This *Indicator** is only applicable if areas of special significance have been identified and *rights** have been established per Indicator 3.5.1.

**Guidance:** Compliance with cultural resource *Best Management Practices** that have been developed at a state or regional scale with *tribal** consultation is an example of how conformance could be achieved when identified *Native American** *Indigenous Peoples** do not wish to *engage**.

If *Native American** *Indigenous Peoples** do not wish to disclose the location of sites with special significance, *engagement** with them could instead focus on identifying the kinds of ecological conditions that would achieve their desired outcomes.

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

**3.6. *The Organization** shall *uphold** the right of *Indigenous Peoples** to *protect** and utilize their traditional *knowledge** and shall compensate *Indigenous Peoples** 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.**

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 that has been formalized and recorded in a verbal or written *binding agreement**.

**Guidance:** Annex F explicitly addresses situations where consent is needed for *management activities** that may affect *rights** held by *Native American** *Indigenous People**. A similar *Free, Prior, and Informed Consent** process with *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**.

3.6.2. When *traditional knowledge** or *intellectual property** is used, written protocols aligned with the *binding agreement** established per Indicator 3.6.1 are jointly developed prior to such use to protect the *traditional knowledge** or *intellectual property** and *fairly compensate** for its use.

## *PRINCIPLE** 4: COMMUNITY RELATIONS

*The Organization** shall contribute to maintaining or enhancing the social and economic wellbeing of *local communities**.

**Applicability:** Any *traditional peoples** that are federally recognized are to be treated as equivalent to *Native American Indigenous Peoples** for the purpose of Principle 3 and the remainder of this standard. Those that are not federally recognized are to be treated as equivalent to *local communities** for the purpose of Principle 4 and the remainder of this standard (per FSC Principles & Criteria; FSC-STD-01-001 V5-3), with the exception of Criterion 4.2 and Criterion 4.8 which include separate expectations regarding *Free, Prior and Informed Consent** for *traditional peoples** even if they are not federally recognized.

As of the effective date of this Standard, no *customary rights** have been established for non-Indigenous *local communities** in the United States and therefore the elements of *Indicators** related to *customary rights** in this Principle are not currently applicable. However, if a *local community** as a whole (not just individuals) were in the future to establish *customary rights** status for long-held practices, the elements of *Indicators** related to *customary rights** in this Principle would only then become applicable. These situations will be dealt with on a case-by-case basis.

Aligned with the definition of "*local community**," Principle 4 *Indicators** may apply to *local communities** that occur both within the *management unit** (e.g., communities within a certified national forest), and outside the *management unit**.

**Guidance:** The definitions of "*customary rights**" and "*engage/engagement**" are integral to accurate interpretation of the Principle 4 *Criteria** and *Indicators**.

*Engagement** with *local communities** is expected to focus on communication with representatives who have delegated authority from the community, such as a mayor, commissioner, city council members, other elected officials or others who have the authority to represent the community as a whole. 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. If *The Organization** has an established process or system in place for *engaging** with *local communities** regarding their *rights** and/or potential impacts from *management activities**, this could potentially be used for engagement per Criterion 4.1 and/or Criterion 4.5, if it addresses conformance with the applicable Indicators.

Per the definition of "*engagement**," all *engagement** is expected to be *culturally appropriate**. Further guidance on *culturally appropriate** communications with *local communities** is provided in Annex F.

**4.1. *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**.**

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**, identifies and documents *legal** and/or *customary rights** applicable to the *management unit** that are held by these communities.

**Guidance:** While *The Organization** must assess the existence of *rights** held by *local communities**, there is very limited occurrence in the US of even *legal** *rights** of this nature and most *Organizations** will not need to address *rights** held by *local communities**. Further, a *Free, Prior, and Informed Consent** process (per Criterion 4.2) is only required for *rights holder* if they are *traditional peoples**.

*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** *Indigenous Peoples** are addressed through the *Criteria** and *Indicators** of Principle 3. *Rights** held by *local 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.

FF 4.1.1. Through formal or informal means, *The Organization** identifies *local communities** and *legal** and/or *customary rights** held by these communities that may be significantly affected by *management activities**.

**FF Guidance:** Examples of formal means include identification of rights documented through deeds or other legal documents or through information available from applicable state/local government agencies. Examples of informal means include identification of rights through communication with long-term residents of the area or through family history/knowledge.

**4.2. *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 *traditional peoples** of control over management activities to third parties requires *Free, Prior and Informed Consent**.**

4.2.1. *The Organization** protects and allows the exercise of *rights** applicable to the *management unit** identified per Indicator 4.1.1, including:

4.2.1.1. When *management activities** may affect these *rights**, *The Organization** *engages** with the *rights holder** to ensure that the *rights** in question are not violated and to mitigate violations that have occurred.

4.2.1.2. If the *rights holder** is a *traditional people**, this *engagement** is through a *Free, Prior, and Informed Consent** process with the *rights holder** to secure consent prior to implementing the *management activities**.

4.2.1.3. If the *rights holder** is a *traditional people** and 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 *rights** are identified per Indicator 4.1.1.

**Guidance:** Further guidance on *Free, Prior and Informed Consent** is provided in Annex F.

**4.3. *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.**

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

4.3.1. *The Organization** provides work opportunities to qualified *local** applicants and uses *local** goods and services when of equal price and quality.

**Intent:** *The Organization** should source goods and services from *local communities** to the extent that they are available and reasonably cost competitive.

FF 4.3.1. *The Organization** supports *local** services.

4.3.2. For non-*family forest* management units*, c*ommensurate with the size and *scale** of operation, *The Organization** provides and/or supports vocational learning opportunities associated with *forest** management.

**4.4. *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 socio-economic impact of its management activities.**

4.4.1. For non-*family forest* management units*, The Organization** participates in *local** economic development and civic activities, based on *scale** of operation and where such opportunities are available. These activities are identified through *engagement** with *local communities** and/or other relevant organizations.

**4.5. *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.**

**Guidance:** *Indicators** of Criterion 4.5 are intended to be applicable to potential community-level impacts and not applicable to impacts related to individuals (which are addressed in other parts of the standard). 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.

Conformance with the *Indicators** of Criterion 4.5 may be achieved through direct *engagement** with *local communities** per Annex F. However, as this may be infeasible for certificates with very large expanses of *forest** (and therefore very large numbers of *local communities**) in scope, other processes that provide for *engagement** with *local communities** and which ensure that their interests and concerns are considered could also potentially be used to demonstrate conformance. One option might be to have a broader strategy that includes *engagement** with a representative sample of *local communities** or with individuals who are able to represent the interests typical of *local communities** in the area, paired with a way for *local communities** that are not directly *engaged** to communicate with *The Organization** regarding potential significant negative social, environmental, and economic impacts of *The Organization's* management activities** on the community.

Established processes or systems for *engaging** with *local communities** regarding impacts and strategies to address them could potentially be adequate for conformance with Criterion 4.5, particularly if representatives of *local communities** are invited and can be confirmed as having actively *engaged**. Processes implemented to assess social, environmental and economic impacts on *local communities** could potentially provide evidence of conformance with Criterion 4.5, as long as representatives of *local communities** were/are actively *engaged** in the process.

*Organizations** may find that it is effective and efficient to combine *engagement** activities implemented per Criterion 4.5 with other *engagement** processes required by this standard, such as those for management planning per Criterion 7.6.

Per Criterion 4.5, the extent of outreach and *engagement** and to whom the outreach is directed is expected to reflect the *scale** and *intensity** of *management activities**, and therefore the potential impact that *The Organization** may have on *local communities*.*

4.5.1. Through direct *engagement** with *local communities** identified per Indicator 4.1.1, or through other *engagement** processes, *The Organization** identifies significant negative

social, environmental, and economic community-level impacts that are likely to result from *management activities**.

**Intent:** While *local communities** do not have the authority to make management decisions on private ownerships, Indicator 4.5.1 provides the expectation that *The Organization** *engages** with representatives of communities to learn about concerns and then per Indicator 4.5.2, works to address them.

**Guidance:** One way to assess the significance of potential impacts would be to consider 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 4.5.1. *The Organization** understands (through formal or informal means if the potential for impact is very small) 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.

**FF Guidance:** Examples of informal means for gaining an understanding of likely impacts include having conversations with representatives of the community or completing a self-evaluation of planned management activities and assessing potential impacts based on self-understanding of the community.

4.5.2. For non-*family forest** *management units**, *The Organization** develops and implements strategies to avoid or mitigate impacts identified per Indicator 4.5.1.

**Intent:** Unless the issue(s) being addressed per Indicator 4.5.2 is related to a *right** (in which case, Criterion 4.2 applies and expectations regarding *Free, Prior and Informed Consent** may apply), *local communities** do not have to provide consent for a *management activity** related to this standard to be implemented. However, per Criterion 7.2 and Criterion 7.6, *The Organization** is expected to consider any *local community** input regarding strategies developed per Indicator 4.5.2. If a *local community** has concerns regarding the impacts from *management activities**, they are able to submit a *dispute** per Criterion 1.6.

**4.6. *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**.**

**Intent**: If a *dispute** is received regarding the impacts of management activities on affected *local communities** and other *affected stakeholders**, the *Indicators** of Criterion 1.6 address the expectations of this Criterion. Annex D provides guidance for *The Organization's** *dispute** resolution process.

**4.7. *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**.**

4.7.1. If *engagement** with *local communities** per Criterion 4.1 or Criterion 4.5 identifies any sites of special significance to *local communities** and for which they hold *legal** and/or *customary rights**, measures to manage and/or *protect** the sites are developed and implemented through *engagement** with the *local community**.

**Applicability:** This indicator only applies if there are *rights** associated with the site(s) identified.

**Guidance:** Sites of special significance include ecological, cultural, historical, or other sites that are important to the community's self-identity.

**4.8. *The Organization** shall *uphold** the right of *traditional peoples** to *protect** and utilize their *traditional knowledge** and shall compensate *traditional peoples** 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 *traditional 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.**

4.8.1. *Traditional knowledge** and *intellectual property** of *traditional peoples** are protected and are only used, and compensation provided to owners for use, when the owners of that *traditional knowledge** and *intellectual property** have provided their *Free, Prior and Informed Consent** formalized through a *binding agreement**.

## *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.

**5.1. *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.**

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 the range of resources and *ecosystem services** applicable to the *management unit** (e.g., timber, *non-timber forest products**, water, carbon sequestration, recreation).

FF 5.1.1. *The Organization** demonstrates knowledge of how the resources and *ecosystem services** that are within the scope of its FSC certification affect the local economy.

5.1.2. On non-*public land**, consistent with *management objectives**, *The Organization** implements actions to foster opportunities to diversify the *local** economy and/or offers opportunities intended to stimulate *local** economic activity.

**Intent:** The primary *management objectives** of *The Organization** per Indicator 7.1.2 may be more *conservation** or *protection** focused, or may be more economically focused.

**Guidance:** Examples of diversification of economic uses include: 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.

FF 5.1.2. On non-*public land**, *The Organization** has *documented** what diversification opportunities have been explored and why they were or were not implemented.

5.1.3. On *public land**, *The Organization** provides opportunities to diversify the *local** economy and offers opportunities intended to stimulate *local** economic activity.

5.1.4. *The Organization** conforms with FSC-PRO-30-006 when making FSC promotional claims regarding *ecosystem services**.

**5.2. *The Organization** shall normally harvest products and services from the *Management Unit** at or below a level which can be permanently sustained.**

5.2.1. *Sustained yield harvest level** for each *planning unit** is based on an analysis of *best available information** including: growth and yield; inventory of the *forest**; mortality rates; areas reserved from harvest or subject to harvest restrictions; and maintenance of *ecosystem function**.

FF 5.2.1. *Sustained yield harvest levels** of timber products are determined using a method that 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**.

5.2.2. For non-*family forest** *management units**, *The Organization** provides rationale for determining the size and layout of the *planning unit(s)**.

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 *sustained yield harvest level** per Indicator 5.2.1, except when justified per Indicator 5.2.4.

**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.).

FF 5.2.3. Harvesting of timber products does not exceed the *sustained yield harvest level** identified per Indicator FF 5.2.1.

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 6.6.1, Indicator 7.2.14, Indicator 10.5.1, Indicator 10.11.3 nor Indicator 5.2.4.

Climate change impacts could have an impact on *The Organization's** ability to achieve desired conditions and improve or maintain health and quality of the *forest**.

5.2.5 For *non-timber forest products** (i.e., NTFP) that are sold commercially, *The Organization** establishes (based on *best available information**) and abides by a *sustained yield harvest level** or harvest guidelines for *non-timber forest products** that will maintain or enhance the long-term viability of: a) *species** populations from which the *non-timber forest product** is derived, and b) *environmental values** identified per Indicator 6.1.1.

**Applicability:** The scope of this indicator is *non-timber forest products** that are commercially harvested. The scope does not include those that are harvested in association with *legal** or *customary rights**. However, it does include, but is not limited to, *non-timber forest products** that are sold with an FSC claim.

**Guidance:** Examples of guidelines include formal best management practices and existing established guidance, such as years between harvest (e.g., sphagnum moss), number of taps per diameter inch (e.g., maple syrup), or percent live crown left (e.g., balsam boughs).

The scale of the applicable population considered will be specific to the *non-timber forest product** being harvested and the *species** from which it is derived.

**5.3. *The Organization** shall demonstrate that the positive and negative *externalities** of operations are included in the *management plan**.**

5.3.1. For non-*family forest** *management units**, management planning takes into account the *long-term** positive and negative environmental and social impacts of *management activities**.

**Intent:** The intent of Indicator 5.3.1 is for *The Organization** to complete planning and accounting for the *management unit** at a level of detail that allows it to demonstrate its commitment to *long-term** economic viability per Criterion 5.5, considering the resources

that may be needed given the *long-term** positive and negative environmental and social impacts of *management activities**.

**Guidance:** Examples of what might be considered 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.

**5.4. *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.**

5.4.1. Where *forest** products are harvested or sold, *The Organization** demonstrates a preference for *local** harvesters, value-added processing and manufacturing facilities, and other operations that are able to offer services at competitive rates and levels of service.

5.4.2. For non-*family forest** *management units**, *reasonable** attempts are made to establish, encourage and/or support capacity if *local** goods, services, processing, and value-added facilities are not adequate or available.

5.4.3. On *public lands** where *forest** products are harvested and sold, a portion of the *forest** product sales and/or contracts (as applicable) 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 are typically also taken into account in awarding sales and contracts.

**Guidance:** Designation of “small businesses” is intended to be interpreted within the context of the existing definitions used by the applicable *public land** administrating agency.

**5.5. *The Organization** shall demonstrate through its planning and expenditures proportionate to *scale, intensity and risk**, its commitment to *long-term** *economic viability**.**

5.5.1. *The Organization** has the financial and operational capacity to implement activities necessary 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**

5.5.2. Expenditures and investments are made to implement the *management plan** in order to meet this standard and to ensure *long- term** *economic viability**.

**Guidance:** Examples of how this could be demonstrated:

- *Management activities** implemented
- *Infrastructure** development initiated/completed
- Contracted services completed

- Acquisition of materials
- Documentation of training accomplished
- Adequate staff employed

## *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.

**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:** Examples of *best available information** for Criteria 6.1 through 6.3 include:

- *Representative Sample Areas** showing *environmental values** in their *natural condition**
- field surveys
- databases relevant to the *environmental values**
- consultation with local and regional *experts**
- *engagement** with *Indigenous Peoples*, local communities**, and *affected stakeholders** and *interested stakeholders**
- historical and potential occurrence of *catastrophic natural disturbances**
- data from state Natural Heritage Programs, NatureServe, LANDFIRE, state wildlife agencies, US Fish and Wildlife Service, and the National Marine Fisheries Service

**6.1. *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.**

6.1.1. Using *best available information**, 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:

1) *historic conditions** on the *management unit** related to forest community types and *forest** size class and/or *successional** stages;
2) a broad comparison of *historic conditions** and current conditions;
3) potential future impacts of climate change and *catastrophic natural disturbances**; and
4) consideration of *environmental values**, including:
    i. *forest** community types, *forest** size class and/or *successional** stages, and associated *natural disturbance regimes**;
    ii. *rare, threatened, and endangered species** and *rare ecological communities** (including plant communities);
    iii. other *habitats**, *ecosystems**, and *species** of management concern;
    iv. water resources, including watercourses, *water bodies**, *wetlands**, *riparian areas** and hydrologic functions;
    v. *soil** resources; and

*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)**Intent:** Indicator 6.1.1 establishes *historic conditions**, current conditions and potential future impacts as context for assessing environmental impacts of *management activities**.

Indicator 6.1.1 does not require that *The Organization** quantify carbon storage and sequestration. *The Organization** is expected to consider the public value and potential impacts associated with carbon, similar to considerations for watersheds, fisheries, and recreation as public values.

**Guidance:** The definition of "*environmental values**" is essential for accurate interpretation of Indicator 6.1.1. The definition of "*rare, threatened, and endangered species**" provides criteria for identifying these *species**, and together with the definition of "*rare ecological community**" provides criteria for identifying such communities.

When documented *historic conditions** are not available, it may be necessary for *The Organization** to develop estimates from *best available information**.

Examples of *natural disturbance regimes** include wind, fire, insects, *pathogens**, landslides, flooding, earthquake, hurricanes, and other natural processes. The typical characteristics of disturbance events, such as opening size, *intensity** of disturbance, range, and frequency of disturbance, to the extent they are known, could affect potential future impacts.

Examples of "other *habitats** and *species** of management concern" include:

- Species of Greatest Conservation Need and Priority Habitats identified in state "Wildlife Action Plans" and priorities identified by state and federal conservation agencies
- areas identified in conservation* plans developed by other *conservation** organizations using *best available information**
- *habitats** for other *species** potentially at risk due to management;
- climate change *refugia**.

If *forest** community and *successional** stage classifications are differentiated with a level of detail 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**, this will provide helpful information for conformance with other Criteria in Principle 6 (e.g., Criterion 6.5, Criterion 6.6, Criterion 6.8).

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.

Annex L provides guidance and resources for determining potential future impacts of climate change.

FF 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 *forest** community types and *forest** size class and/or *successional** stages; (2) the condition of unique and *rare ecological 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**.

**FF 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 will likely provide adequate information.

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 (at minimum as part of the review of the *management plan**) so that:

1) Impacts of *management activities** on the values can be assessed per Criterion 6.2;
2) *Risks** to the values can be identified per Criterion 6.2;
3) Necessary *conservation** measures to protect the values can be identified per Criterion 6.3; and,
4) Monitoring of impacts or environmental changes can be conducted per Principle 8.

6.1.3. On *public lands**, while respecting *confidential information**, 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**.

**6.2. 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**.**

**FF Intent:** The Indicators* in this *Criterion** are intended to be *scale**-dependent, with the rigor of the assessment commensurate to the level of disturbance. Therefore, less-extensive and less-technical assessments might be adequate for *family forest** *management units** to demonstrate conformance.

6.2.1. Prior to commencing site-disturbing activities and using *best available information**, *The Organization** completes a systemic process to assess and document potential present and future impacts of *management activities** on *environmental values** identified per Indicator 6.1.1, from the stand level to the *landscape** level, including consideration of potential alternative *management activities**.

**Intent:** Present (i.e., short-term) impacts are intended as those that can be measured during or within a short period of the *management activity** (e.g., within one year). Future (i.e., *long-term**) impacts are intended as 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** are intended to include those that occur over time at a specific site (e.g., depletion of *soil** nutrients) or at a *landscape** scale or at an ownership scale (e.g., the *cumulative impact** of many harvests on wildlife *habitat**).

Indicator 6.2.1's requirement to assess environmental impacts is not intended to require a formal "environmental impact assessment" as described and required by certain *federal laws** and *local laws**.

**Guidance:** Level of detail (i.e., detailed description or quantification of impacts) needed in the assessment will likely vary depending on the uniqueness of the resource, potential *risks**, and steps that will be taken to avoid and minimize *risks**. The scale of consideration in the assessment will likely vary depending on the *environmental value** being assessed; for some values, documenting the assessment at an operational plan scale may be more appropriate, whereas values that are applicable to a larger portion of the *management unit** or are associated with longer temporal scales (e.g., *natural disturbance regimes**,

hydrologic functions, *successional** stages) may be better addressed at a *management plan** scale.

FF 6.2.1. Using *best available information**, *The Organization** conducts an informal impacts assessment that assesses and documents potential present and future impacts on *environmental values** identified per FF Indicator 6.1.1 that are likely to result from the activities.

**FF Guidance:** For conformance with this Indicator, the assessment does not need to be a formal systematic process, it could be the documented outputs from self-conducted consideration of each identified environmental value and potential impacts based on the management plan and other planned activities, or it could be based on an impact assessment that was previously completed for a different location with a similar context that is then adapted as needed for planned activities.

For *family forest** *management units**, assessment and documentation of long-term impacts are not always necessary or appropriate. Examples of what to consider while assessing long-term impacts include: harvest prescriptions, techniques, site preparation, timing, and equipment used.

**6.3. *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.**

6.3.1. Using the findings of the impact assessment (per Indicator 6.2.1), *management strategies** are developed and implemented that: 1) prevent, and if not possible, then minimize negative short-term and *long-term** impacts; and 2) maintain and/or enhance the *environmental values** identified per Indicator 6.1.1.

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

Options for documenting prescriptions for site-specific features (e.g., unique *habitats**, *water bodies**, identification of sensitive *soils**) include in operations plans or site-level prescriptions.

6.3.2. Where negative impacts to *environmental values** identified per Indicator 6.1.1 occur as a result of *management activities**, measures are adopted to prevent further damage and to mitigate and/or repair negative impacts.

**Intent:** The “repair” is of the damage done to *environmental values** which resulted from *management activities**. Indicator 6.3.2 is not intended to require the formation of more *natural conditions** in sites that have been heavily degraded or converted to other land uses.

6.3.3. On *public lands**, while respecting *confidential information**, *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**.

**6.4. *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**.**

**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, per Indicator 6.4.1 and Indicator 6.4.2, *The Organization** is required to follow a *precautionary approach** and manage as though they are present.

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, using established or defensible protocols based on *best available information**. If surveys conclude a *species** is present, its location is reported to the manager of the appropriate database.

**Intent:** "Likely" is intended to be a judgment decision by *The Organization** with consideration of *best available information**.

"Appropriate database" is intended to be a reference to the state agency, Natural Heritage program or other database that is the recognized formal repository for information about occurrences of *rare, threatened, and endangered species**.

**Guidance:** Examples of *best available information** for determining the likelihood of presence of a *rare, threatened, and endangered species** include: consultations with *experts**, other occurrences of the *species** in proximity with the *management activities**, other occurrences of the *species** in similar *habitat**, input from applicable natural resource agencies such as state wildlife agencies, the Natural Heritage programs, NatureServe, the National Marine Fisheries Service, and consideration of *historical conditions**.

Individuals with appropriate expertise to conduct surveys could include individuals either external or internal to *The Organization**.

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**/*protection areas** are established for *rare, threatened, and endangered species** identified per Indicator 6.1.1 where they are necessary to maintain or improve the short-term and *long-term** viability of the *species** and their *habitats**. *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**.

**Guidance:** *Connectivity**-focused strategies could be important for *species** maintenance, *restoration** and/or enhancement to allow for genetic mixing of *rare, threatened, and endangered species**, and also to provide potential *habitats** at different ecological gradients, which may assist *species'** adaptation to climate change (e.g., to potential *habitats** at various elevations or latitudes).

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

6.4.4. Within the *legal** capacity of *The Organization**, hunting, fishing, trapping, and collection of *rare, threatened, and endangered species** is prevented.

On *tribal** lands and where *Native American** *Indigenous Peoples** 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 *federal laws** and *local laws** or with an agreement between a *Native American** *Indigenous People** and the US Fish and Wildlife Service.

**Guidance:** Examples of how prevention of hunting, fishing, trapping and collection of *rare, threatened, and endangered species** could be demonstrated:

- Monitoring boundaries for evidence of trespass
- Monitoring the area in which the species occurs in coordination with responsible governmental agencies and/or other experts
- Communicating any evidence of trespass or activities with negative impacts to legal authorities

**6.5. *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.**

**Intent:** The goal of this *Criterion** is to *conserve** sites or *restore** sites to favor or form *viable** examples of *native ecosystems** that are typical of, and that would naturally occur in, the *management unit**. As representative samples of particular *native ecosystems** or particular ecological conditions of a *native ecosystem**, *Representative Sample Areas** serve primarily as ecological references that can be used by researchers, conservationists, or others to help determine what kind of *conservation** or *restoration** activities are needed in a different location that is more degraded. They may also serve other ecological purposes (see Annex G).

The intent of the Indicators in this Criterion are to prioritize *ecosystems** and/or ecological conditions that are in greater need of *conservation** assistance. *Representative Sample Areas** are intended to reflect the full diversity of *native ecosystems** (i.e., not just those that are *forested**), and not disproportionately represent non-*forested** *ecosystems**.

*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:** Annex G provides guidance for considerations associated with identifying *Representative Sample Areas**, associated with management and activities within *Representative Sample Areas** and associated with *restoration** of more *natural conditions** per Indicator 6.5.2 and Indicator 6.5.3.

A given area may serve to achieve conformance for multiple *Criteria** (e.g., 6.4, 6.5, 6.6, and Principle 9; see Annex H for more details).

**FF Intent:** Conformance with Criterion 6.5 is expected for all FSC certifications, regardless of the *scale** or *intensity** of the *management unit**. However, conformance with Indicator 6.5.1, Indicator 6.5.2, Indicator 6.5.5, Indicator 6.5.6, and Indicator 6.5.7 are intended to be sufficient for ensuring that the primary purpose of this Criterion is addressed for *family forest** *management units**. Annex G provides additional guidance for *family forests** to assist with conformance.

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. For each identified *ecosystem**, *The Organization** assesses the adequacy of representation and *protection** within the *landscape** in which the *management unit** occurs.

**Guidance:** Further guidance on *best available information** and considerations regarding adequacy of representation and *protection** are included in Annex G.

6.5.2. For *ecosystems** that are not adequately represented and *protected** per Indicator 6.5.1, *viable** examples within the *management unit** are designated as *Representative Sample Areas** and managed to *conserve** the *ecosystem**. If *viable** examples do not exist, but degraded examples that could feasibly be *restored** do exist within the *management unit**, these are designated as *Representative Sample Areas** and managed to *restore** more *natural conditions**.

**Applicability:** Non-*family forest** *management units** that depended on *Representative Sample Areas** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1 are expected to conform with Indicator 6.5.2 within 3 years of the Standard's effective date (i.e., the *achievement date**), regardless of when the next *management plan** revision is scheduled. If conformance is not achieved by 3 years following the effective date, a non-conformance will be assessed.

*Family forest** *management units** that depended on *Representative Sample Areas** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1 are expected to conform with Indicator 6.5.2 within 5 years of the Standard's effective date (i.e., the *achievement date**), regardless of when the next *management plan** revision is scheduled. If conformance is not achieved by 5 years following the effective date, a non-conformance will be assessed.

During the time period until conformance with Indicator 6.5.2 is achieved, or the *achievement date** arrives (whichever occurs first), the following interim indicator will be audited for conformance:

**Interim Indicator 6.5.2** For *ecosystems** that are not adequately represented and *protected** per Indicator 6.5.1, *viable** examples within or outside of the *management unit** are designated as *Representative Sample Areas**, with the following conditions:

1. If within the *management unit**, they are managed by *The Organization** to *conserve** the *ecosystem**.
2. If outside of the *management unit**, *The Organization** demonstrates that the *ecosystem** is being *conserved** by the entity responsible for managing the area.
3. If *viable** examples do not exist, but degraded examples that could feasibly be *restored** do exist within the *management unit**, these are designated as *Representative Sample Areas** and managed to *restore** more *natural conditions**.

4. *The Organization** demonstrates that it is taking the steps necessary to achieve full conformance with Indicator 6.5.2.

**Guidance:** Further guidance on feasibility of *restoration** and restoring more *natural conditions** is included in Annex G.

**FF Guidance:** Annex G provides *family forest**-specific guidance for designating *Representative Sample Areas**.

PL 6.5.2 *The Organization** conforms with Indicator 6.5.2, but if greater than 5% of the *management unit** includes lands where natural *ecosystems** were converted to *plantations** prior to 1994, *The Organization** does not designate *Representative Sample Areas** outside of the *management unit**.

6.5.3. For non-*family forest** *management units**, if no *Representative Sample Areas** are designated per Indicator 6.5.2, or if they are insufficient per Indicator 6.5.4, a portion of the *management unit** is managed to *restore** more *natural conditions**.

**Guidance:** Further guidance regarding management to *restore** more *natural conditions** is included in Annex G.

6.5.4. For non-*family forest** *management units**, the combined extent of *Representative Sample Areas** designated per Indicator 6.5.2 and areas being managed to *restore** more *natural conditions** per Indicator 6.5.3 is proportionate to the levels of representation and protection within the *landscape** in which the *management unit** occurs, the size of the *management unit** and the *intensity** of *forest** management.

6.5.5. *Management activities** within *Representative Sample Areas** designated per Indicator 6.5.2 are limited to *management activities** that maintain or enhance the *conservation** objectives for the designated area.

**Guidance:** The primary purpose of a *Representative Sample Area** is to *conserve** (i.e., maintain or enhance) or *restore** a particular *native ecosystem** or a particular ecological condition of a *native ecosystem** as an ecological reference. Management that achieves this purpose could range from a more "hands-off" approach to more intensive management. The *Indicators** of Criterion 6.5 do not prohibit other activities that are not *management activities** from occurring within a *Representative Sample Area** as long as they support, or do not detract from, the primary purpose of the area.

When *management activities** (including timber harvest) create and maintain conditions that emulate a particular ecological condition (e.g., an intact, mature *forest** or other *successional** phases) that is underrepresented in the *landscape**, and *The Organization** decides to designate this area as a *Representative Sample Area**, the management system that created those conditions would be considered aligned with Indicator 6.5.5, as long as it continues to maintain or enhance the designated area.

Additional guidance for management and activities within *Representative Sample Areas** is included in Annex G.

6.5.6. The process and rationale used to designate *Representative Sample Areas** (per Indicator 6.5.1 and 6.5.2) 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. Documentation may be brief and less technical for *family forest** *management units**.

6.5.7. *Representative Sample Areas** designated per Indicator 6.5.2 and areas being managed to *restore** more *natural conditions** per Indicator 6.5.3, in combination with other

components of the *conservation areas network**, comprise a minimum 10% area of the *management unit**.

**Applicability:** Non-*family forest** *management units** that depended on *Representative Sample Areas** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1 are expected to conform with Indicator 6.5.7 within 3 years of the Standard's effective date (i.e., the *achievement date**), regardless of when the next *management plan** revision is scheduled. If conformance is not achieved by 3 years following the effective date, a non-conformance will be assessed.

*Family forest** *management units** that depended on *Representative Sample Areas** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1 are expected to conform with Indicator 6.5.7 within 5 years of the Standard's effective date (i.e., the *achievement date**), regardless of when the next *management plan** revision is scheduled. If conformance is not achieved by 5 years following the effective date, a non-conformance will be assessed.

During the time period until conformance with Indicator 6.5.7 is achieved, or the *achievement date** arrives (whichever occurs first), the following interim indicator will be audited for conformance:

> **Interim Indicator 6.5.7** *Representative Sample Areas** designated per Indicator 6.5.2 or Interim Indicator 6.5.2 and areas being managed to *restore** more *natural conditions** per Indicator 6.5.3, in combination with other components of the *conservation areas network**, comprise a minimum 10% of the combined area of the *Representative Sample Areas** outside of the *management unit** plus the *management unit**. Additionally, *The Organization** demonstrates that it is taking the steps necessary to achieve full conformance with Indicator 6.5.7.

**Guidance:** To conform with Indicator 6.5.7, *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**.

Some portions of the *conservation areas network** (e.g., *Representative Sample Areas**, *High Conservation Value Areas**) will have more restrictive limitations on *management activities** than other portions. However, aligned with the definitions of "*conservation areas network**" and "*conservation**," while non-*conservation**-oriented activities may be allowable within some designated areas, all activities within the *conservation areas network** are limited to those that support or do not detract from the *conservation** objectives for each identified area.

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

PL 6.5.7 *The Organization** conforms with Indicator 6.5.7, but if greater than 5% of the *management unit** includes lands where natural *ecosystems** were converted to *plantations** prior to 1994, *The Organization** does not designate areas outside of the *management unit** as part of the *conservation areas network**.

6.5.8. *Large**, contiguous *management units** on *public lands** establish and maintain a *conservation areas network** sufficient in size to maintain *species** dependent on interior core *forest** *habitat**.

**Guidance:** The amount of interior core *forest* habitat** needed to be sufficient will depend on which *species** may be present and the shape of the *forest** block.

**6.6. *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.**

6.6.1. *Management activities** maintain, enhance or *restore** the *ecological communities** and *habitat** conditions found within *native ecosystems** in the *management unit** to support the diversity of naturally occurring *species** and their genetic diversity.

**Intent:** This *Indicator** addresses potential gaps for *ecological communities** and *habitats** that are not explicitly covered by Criterion 6.4, Criterion 6.8, Indicator 6.6.2, and Indicator 6.7.1.

It is also intended to address management for elements of *habitat** diversity across the *management unit**, including consideration of diversity and forest* management influences at both the *landscape**/multi-stand scale and within stands. This might mean that *habitat* connectivity** at the multi-stand scale could be an important consideration for *species** that are vulnerable to *habitat* fragmentation**.

Given the *Indicator's** focus on *management activities**, it would be appropriate for the level of detail in management and quantification of *habitat** conditions to vary with the *scale** and *intensity** of management. Greater consideration of the area, location, and type of *habitat** could therefore be appropriate 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**.

**Guidance:**

For *ecological communities**: Examples of *management activities** that maintain, enhance or *restore* ecological communities** include: 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. Prescribed fire can also be a beneficial management strategy in some ecosystems to restore or re-establish natural fire regimes. Examples of additional considerations for *ecological communities** include tree *species** and understory vegetation, based on the *ecosystem**.

Examples of *species** guilds to be considered 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.

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 10.11.3, nor Indicator 6.6.1.

For *habitat** conditions: Generally, conformance with Indicator 6.6.1 does not require that all *species** be identified and considered individually. Instead, the Indicator* focuses on management of 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 *ecological communities** and/or *habitat** conditions for an individual *species** might 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.

Examples of information sources that might be useful for demonstrating conformance with Indicator 6.6.1 include: cover type maps as a *habitat** assessment tool; and plant community type and successional stage or *age class** data generated in Indicators 6.1.1 and 6.4.2 (e.g., a ecological community/successional stage matrix table).

The range of *habitat** conditions that can be accommodated at any one time will generally vary by *management unit** size: on smaller *management units** (generally, tens to thousands of acres), the focus could be more on managing for *habitat** diversity by considering the role of the *management unit** within the surrounding *landscape**. However, very large *management units** could likely accommodate scaled *landscape** *planning units**, such as units based on *ecosystem** boundaries or *landscape** features that are scaled to accommodate *natural disturbance regimes** (with the possible exception of extreme large-scale 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.

PL 6.6.1. Within *plantation** stands, *management activities** effectively maintain naturally occurring plant and animal *native species** and *genotypes**, *habitat** conditions for *native species**, and prevent losses of *biological diversity**.

**PL Guidance:** Examples of approaches for improving *species** composition, distribution, and frequency of occurrence include:

- 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.

6.6.2. When a *rare ecological community** is present, *The Organization** maintains, *restores**, or enhances community viability using *best available information**. Based on the vulnerability of the existing community, this includes establishing *conservation zones*/protection areas** when needed to *conserve** the *rare ecological community**.

**Applicability:** This *Indicator** applies to occurrences of *rare ecological communities** identified per Indicator 6.1.1.

The definition of "*rare ecological community**" together with the definition of "*rare, threatened, and endangered species**" provides criteria for identifying such communities.

**Guidance:**

Classification of *rare ecological communities** is generally conducted at the Alliance or Natural Community levels, although a more coarse classification might be appropriate in cases where community types are highly diverse and difficult to classify.

6.6.3. 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:

1) include large live trees, live trees with decay or declining health, *snags**, and well-distributed coarse down and dead *woody debris**;
2) provide vertical and horizontal complexity;
3) are generally representative of the *species** naturally found on the site; and
4) 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.

**Applicability for <u>All Regions</u>:** 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.

**Intent for <u>All Regions</u>:** The intent of this *Indicator** is to provide adequate *habitat** components and associated stand structures for maintenance of native *species**, including *species** associated with large and/or decaying trees and dead wood. This means that if adequate *habitat** components and associated *stand** structures are not present, *The Organization** might need to recruit them.

**Guidance for <u>All Regions</u>:** Some *stands** may take some time to develop these structural elements. In these situations, examples of evidence of conformance 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 are an option for developing *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 cavity trees.

Addressing the “abundance and distribution” element of Indicator 6.6.3 will generally mean selecting *species** for retention that are representative of the *species** found on the site, but might also vary from this to reflect differing ecological and financial objectives.

**Guidance for the <u>Ozark-Ouachita Region</u>:** For conformance with Indicator 6.6.3, *The Organization** might need to take into account maintenance of high-quality seed trees in the *stand**, and presence of advanced regeneration (hardwoods) before harvest.

**Guidance for the <u>Pacific Coast Region</u>:** In some dry regions, retaining approximately 10 tons of *woody debris** per acre might be sufficient for conformance with Indicator 6.6.3, but in wetter regions, additional amounts, such as 20 tons of *woody debris** per acre, might be appropriate. The following would be generally adequate for *woody debris** and *snags** to represent the natural processes in this region: a) *woody debris** that is well distributed spatially and by size and decay class, and includes at least four large pieces (i.e., approximately 20” diameter x 15’ length) per acre; and b) three to 10 *snags** per acre (averaged over 10 acres) that are well represented by size, *species**, and decay class.

**Guidance for the Southwest Region:** The following would be generally adequate for *snags** to represent the natural processes in this region: an average of at least three *snags** per acre dispersed across the *management unit**, including *snags** that are representative of the larger sizes of dominant *species** and representative of both "hard" and "soft" decay classes.

PL 6.6.3. *Woody debris** and other organic matter is retained within *plantation** *stands** to ensure *soil** structure and nutrient recycling, unless fire is being used to achieve natural understory and *soil** conditions.

**PL Guidance:** Conformance with this Indicator* will likely include scattering slash back over exposed soil on skid trails and evenly dispersing it across logging sites.

6.6.4. *The Organization** develops and implements a written strategy to prevent or control *invasive species**, preferably in consultation with separate regulatory bodies where these exist or other organizations with expertise. It includes:

1) an assessment of the presence and extent of *invasive species** and the degree of threat to *native species** and *ecosystems**;
2) *management activities** that minimize the risk of *invasive species** establishment, growth, and spread;
3) where possible or reasonably practical, eradication or control of established *invasive species** populations; and
4) monitoring of control measures and *management activities** to assess their effectiveness in preventing or controlling *invasive species**.

**Intent:** This *Indicator** addresses all *invasive species** present within the *management unit**, regardless of when or how they were introduced, and including non-*forest** (e.g. roadside, wetland, etc.) *invasive species**. The intent of this *Indicator** is to minimize the risk of *invasive species** to *native ecosystems** on the *management unit**.

**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.

Consultation with regulatory bodies and/or *experts** could include either 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** ecologists to determine priority threat levels for particular *invasive species** and recommended activities for eradication or control if found (i.e., the landowner can rely on the committee's work without *engaging** in independent consultation).

*Best available information** for prioritizing *invasive species** control, will likely be found in recommendations from applicable state agencies and other *invasive species** experts. The applicable state agency might also have additional resources to assist with developing the *invasive species** strategy per Indicator 6.6.4.

Additional expectations for monitoring and control of *non-native species** that were intentionally introduced by *The Organization** are included in Criterion 10.3.

FF 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**.

6.6.5. When *even-aged** *silvicultural** systems are employed, 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 harvest** or rehabilitation. The regional supplementary requirements that follow also apply for portions of *management units** within the specified FSC US Regions.

**Guidance for <u>All Regions</u>:** *Retention** best practices include:

- *retention**, especially patch size and location, that generally reflects the type of live vegetation that would be found given *natural disturbance regimes**;
- provision of a variety of "lifeboat" conditions for sensitive understory plant *species**, fungi, and lichens and *habitat** elements for animals;
- inclusion of trees of all sizes as well as understory plants;
- locating retained vegetation to protect *snags**, down *woody debris**, and other *retention** components from windthrow, and to maintain their microclimate and desired function;
- *retention** that is distributed as both clumps and dispersed individuals, unless justified by the site conditions of the stand; and
- retained trees that comprise a diversity of *species** and size classes, including large and old trees.

"Clump" *retention** includes *riparian management zones**, wildlife corridors and other special zones that provide habitat described in the *Indicator**. "Dispersed" *retention** includes desirable overstory and understory *species** that allow for regeneration of shade-intolerant and intermediate *species** consistent with overall management objectives.

*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. Appropriate 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** might be appropriate to improve both merchantable and non-merchantable attributes.

Following catastrophic events (i.e. events that leave less than the accepted retention for the applicable region and *forest** type), retention of trees in salvage openings will likely need to be ecologically and economically justified using *best available information**.

FSC US Region delineations are provided in Annex B.

**<u>Specific to the Appalachian Region</u>**

6.6.5. Regional Supplement1: When *even-aged silviculture** (e.g., clearcut, seed tree, regular or irregular shelterwood) 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.

**Guidance:** To be consistent with the characteristic *natural disturbance regime**, *even-aged silviculture** will generally only be appropriate where naturally occurring *species** are maintained or enhanced. *Retention** within *harvest units** could potentially 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** might be appropriate with the intent of improving future *stand** conditions or releasing advanced regeneration. When considering maximum *harvest opening** size with no *retention**, the following are examples of information that might affect the decision: potential aesthetic impacts, *age class** diversity on the *landscape**, regeneration goals, and *natural disturbance regime**. To be consistent with the characteristic *natural disturbance regime**, individual *harvest openings** with no *retention** will generally average less than 10 acres across the *management unit** in a given year, and individually not exceed 25 acres.

**Specific to the Ozark-Ouachita Region**

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

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

1) 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; and
2) In the Ouachita subregion, *harvest openings** are limited to 20 acres.

**Specific to the Pacific Coast Region**

6.6.5. Regional Supplement4: Regarding *harvest openings**:

1) within *harvest openings** larger than 6 acres, 10%–30% of pre-harvest basal area is retained;
2) 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**;
3) *retention** is distributed as clumps and dispersed individuals, appropriate to site conditions;
4) retained trees comprise a diversity of *species** and size classes, which includes large and old trees;
5) *harvest openings** in even-aged *stands** average less than 40 acres; And
6) no individual *harvest opening** is larger than 60 acres.

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

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

**Guidance:** For Item (1), *harvest openings** consistent with *even-aged silviculture** are appropriate where required for regeneration or vigorous young stand development of

*native species**, considering the context of economic and environmental inputs into determining what is vigorous. This part of the *Indicator** specifies an avenue of conformance where *reasonable** and sufficient growth can only be achieved through *even-aged silviculture**, given the species needs for establishment and development, including in light of site-specific considerations.

For Item (3), an example of where this might apply would be where assessments indicate the historical existence of a distribution of openings within all or a portion of the assessment area, but where the current *landscape** is lacking representative openings. To remain consistent with Indicator 6.6.5, the resulting distribution of openings should be guided by considerations of historical *natural disturbance regimes** and maintenance of natural vegetation. The intent of Item (3) is largely, but not exclusively, about *restoration** of *habitat** diversity to historical conditions.

6.6.5. 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 per 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 per Regional Supplement4.

**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** without a history of human disturbance (i.e., not a *semi-natural forest** *stand**) off the *management unit** would be the best alternative information to establish *culmination of mean annual increment**. If available, historical data from *public lands** such as National Forests would likely be the best source for this kind of information.

6.6.5. 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.

6.6.5. Regional Supplement8: Regarding *salvage harvests**:

Regional Supplement8.1 - When *salvage harvest(s)** are implemented in response to *catastrophic natural disturbances**, the *harvest opening** sizes and proportion and configuration of *retention**, including live and dead trees and other native vegetation, 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** of a *forest** post-disturbance.

Regional Supplement8.2 - *Salvage harvest** with *retention** or *harvest opening** sizes that depart from the requirements of Indicator 6.6.5 may only be conducted when addressing a *catastrophic natural disturbance** and are accompanied by a site-specific rehabilitation plan that:

1) is developed and reviewed by *experts** and based on the *best available information**;
2) provides justifications for why the proposed deviations from the standard *Indicators** are necessary to: (1) meet *The Organization's** *management objectives**, and (2)

balance desired *forest** health and regeneration benefits of the intervention with the risks of the proposed activities;

3) is spatially explicit and includes maps of operational areas, damage severity, and other relevant information;

4) includes site specific activities for the regeneration of forested conditions on all sites harvested (including *integrated pest management**, *chemical pesticide** use, regeneration plans, etc.);

5) describes the *protection** and retention of ecological characteristics and *forest** legacy elements such as *snags**, *woody debris**, *habitat** for wildlife *species**, *rare, threatened and endangered species'* habitats**, etc.;

6) provides mitigation measures and considerations for *soil** and water *protection**; and

7) provides for monitoring, adaptive *management activities**, and additional mitigation measures as necessary to protect resources and achieve *desired future conditions**.

**Guidance:** The following would likely be important elements for inclusion in a rehabilitation plan:

- justifications for deviating from the *Indicators** specifying size of even-age *harvest openings**, *riparian management zones**, or other *Indicators** anticipated to be compromised by the *catastrophic natural disturbance**;
- guidelines for characteristics used to identify trees to be salvaged including the characteristics of the trees expected to die;
- guidelines for characteristics used to identify trees, *snags**, and *woody debris** to be retained; and
- potential risks to consider if no salvage occurs, (i.e., excessive fuel accumulation; insect or disease).

**Specific to the Mississippi Alluvial Valley Region**

6.6.5. Regional Supplement9: 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**.

**Specific to the Rocky Mountain Region**

6.6.5. Regional Supplement10: *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.

**Specific to the Southwest Region**

6.6.5. Regional Supplement11: *Even-aged silviculture** is employed only in predominantly even-aged *forest** types, such as aspen.

6.6.5. Regional Supplement12: 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).

**Specific to the Southeast Region**

**Guidance:** The following is intended as advice for how conformance with the main *indicator** could be achieved in the Southeast Region, but as noted, other approaches might be appropriate for ecological objectives.

Generally, *even-aged silviculture** is not appropriate for *semi-natural forest** *stands** where the majority of trees are greater than 100 years old, or for *natural forests** without a history of human disturbance (i.e., not a *semi-natural forest**). In *semi-natural forest** or even-aged *stands** of hardwood, and cypress, conservative *harvest opening** sizes are generally appropriate. In even-aged *stands** of pine and pine/hardwood, maximum sizes of *harvest openings** similar to the limit for *plantations** that are justified by natural regeneration requirements are generally appropriate.

To achieve ecological objectives, other *silvicultural** approaches may be necessary when supported by *best available information**. For example, *Even-aged silviculture** in *natural forest** *stands** could be used as a tool for maintaining *ecosystems** that are dependent on large, contiguous *harvest openings**.

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

**Intent:** The intent 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 is expected to be calculated over the 5 year time period between full FSC re-assessments (or over the last 5 years for new FSC assessments).

PL 6.6.5.2. For all regions: 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 will likely have multiple purposes, including:

- *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**.

PL 6.6.5.3. For all regions except the Southeast: Before a *regeneration harvest** is conducted, regeneration in adjacent forested areas (*natural forest**, including *semi-natural forest**, or *plantation**) on the *management unit** is of the subsequent advanced successional habitat stage, or exceeds ten feet in height, or has achieved canopy closure along at least 50% of its perimeter. If the adjacent forested area is also a *regeneration harvest**, these green-

up conditions are followed unless the sum area of the opening is not greater than the opening size restrictions stated in Plantation Indicator 6.6.5.1 (i.e., 80 acres).

**Applicability:** This requirement applies to adjacent harvested areas that are within the *management unit** (harvests on adjacent ownerships need not be accounted for).

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

PL 6.6.5.4. For the Pacific Coast Region: On *plantations** maintained on *soils** which historically supported *natural forests**:

1) a minimum average of four dominant and/or co-dominant trees and two *snags** per acre are retained in all *harvest openings**;
2) where sufficient *snags** do not exist, they are recruited;
3) *harvest openings** larger than 80 acres are justified using *best available information**;
4) the average for all *harvest openings** (with and without *retention**) does not exceed 100 acres;
5) departures from these limits for *restoration** purposes are permissible per Indicator 6.6.6.

PL 6.6.5.5. For the Southeast Region: *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.

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

*The Organization** develops a plan that is:

1) developed by *experts** in ecological and/or related fields (e.g., wildlife biology, hydrology, landscape ecology, forestry/*silviculture**);
2) 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;
3) spatially and temporally explicit and includes maps of proposed *harvest openings** or areas;
4) 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 main *indicator**, not the regional supplementary requirements), including for sensitive and *rare, threatened, and endangered species**; and
5) developed in collaboration with *affected stakeholders** and *interested stakeholders**.

**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.

6.6.7. *The Organization** demonstrates that effective strategies are in place to manage and control hunting, fishing, trapping and collecting of *native species** with the intention that these activities do not decrease within-*species** diversity or natural distribution of *native species**.

**Guidance:** In the US context, support of state hunting, fishing, and trapping regulations might be sufficient to demonstrate conformance. Examples of activities that support state regulations include: cooperating with State officials to patrol the *management unit**; facilitating establishment of harvested game checkpoints; controlling hunting access to the property; patrolling the *management unit** during hunting season(s).

PL 6.6.8. New *plantation** establishment does not replace, endanger, or otherwise diminish the ecological integrity of any existing natural *ecosystems** on the *management unit**.

**PL Applicability:** This indicator addresses situations where establishment and certification of new *plantations** is allowable per Criterion 6.9, Criterion 6.10, and Criterion 6.11. "New" *plantations** do not include existing *plantations** that are harvested and regenerated.

PL 6.6.9. 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 is being *restored** to a natural or semi-natural state.

**PL Applicability:** This indicator is not applicable if less than 5% of the *management unit** includes lands where natural *ecosystems** were converted to *plantations** prior to 1994

This indicator is not applicable to *conversions** that occurred after 1994. Any such *conversions** will need to conform with Criterion 6.10 or Criterion 6.11, as well as the applicable Policy for Association and Remedy Framework.

PL Indicator 6.6.9 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.

**PL Intent:** "Natural or semi-natural state" is intended to be interpreted similar to *natural forest** or *semi-natural forest**, in that the conditions represent many of the principal characteristics and key elements of the corresponding *native ecosystem**.

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 main *Indicators** of this standard and not with the *Plantation** Indicators.

**PL 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**, would most likely be aligned with the concept of "maintained in or *restored** to a natural or semi-natural state" for conformance with PL Indicator 6.6.9.

Any areas established within the *management unit** as areas "maintained in or *restored** to a natural or semi-natural state" (per PL Indicator 6.6.9) would, by definition, meet the requirement to be considered part of the *Conservation Areas Network** for conformance with Indicator 6.5.7.

PL 6.6.10. Areas established within the *management unit** to *restore** a natural or semi-natural state per PL Indicator 6.6.9 are chosen through a *landscape** analysis which prioritizes areas with the greatest *conservation** gain and long-term *restoration** objectives but may include considerations of economic feasibility.

**PL Applicability:** PL Indicator 6.6.10 only applies in situations where *restoration** is necessary to achieve the 15% of the *management unit** that is to be maintained in or is being *restored** to a natural or semi-natural state per PL Indicator 6.6.9.

**PL Guidance:** Considerations for prioritizing areas with the greatest *conservation** gain include:

- 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*/protection areas** that provide adequate interior *forest** *habitat** for *native species**;
- *restoring** *riparian areas**, migration corridors among areas of existing *natural forest** (including *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

PL 6.6.11. All *plantations** on *public lands** maintained on *soils** which historically supported *natural forests** are managed to *restore** and maintain *natural forest** (including *semi-natural forest**) vegetation, structure, function, and *habitats** in conformance with all *Indicators** of Principles 1-10, as quickly as feasible.

**PL Applicability:** *Public land** *management units** with only *plantations** maintained on *soils** which historically did not support *natural forests** are exempt from PL Indicator 6.6.11.

**PL Guidance:** As quickly as feasible could potentially include completing a full rotation. A plan to restore all plantations to *natural conditions** that is being implemented would likely be adequate evidence of conformance.

**6.7. *The Organization** shall *protect** or *restore** natural water courses, *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.**

**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** in the United States, 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**).

**Guidance:** The definition of "*water bodies**" is integral to accurate interpretation of the Criterion 6.7 *Indicators**.

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

1) *habitat** for aquatic *species** that breed in surrounding uplands;

2) *habitat** for predominantly terrestrial *species** that breed in adjacent *aquatic habitats**;

3) *habitat** for *species** that use *riparian areas** for feeding, cover, and travel;

4) *habitat** for plant *species** associated with *riparian areas**; and

5) 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.

To provide the elements identified in Indicator 6.7.1, *riparian areas** will likely vary in width with ecological importance and with the *intensity** of timber harvest adjacent to the areas. *Best available information** for delineating *riparian areas** includes 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 area widths is appropriate if *best available information** indicates that it will maintain, enhance or *restore** ecological function.

FF 6.7.1. If state or regional guidance or *best management practices** for maintenance, enhancement and/or *restoration** of *riparian areas** are available, and are applicable to the *management unit**, *management activities** meet or exceed these guidelines or practices. If state or regional guidance or *best management practices** are not available or are not applicable to the *management unit**, conformance with Indicator 6.7.1 is demonstrated.

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).

6.7.3. 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:

1) *water bodies**, and

2) hydrologically sensitive areas (e.g., rivers and stream corridors, lake and pond shorelines).

The guidelines include vegetative *buffer** widths and *protection** measures that are acceptable within those *buffers**.

In addition to the above, the regional supplementary requirements that follow apply for portions of *management units** within the specified FSC US Regions.

**Guidance for <u>All Regions</u>:** Guidelines, with consideration of the Regional Supplementary Requirements below, need to meet or exceed regional recommendations (e.g., *water quality** *best management practices**) as necessary to meet the *Indicator's** objective of *water quality** *protection** and *restoration** measures. Protection measures that are important for *water quality** *protection** and *restoration** 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; and

*Protection** of *water quality** and hydrologic conditions is expected, even if the *water bodies** do not occur along stream corridors.

FSC US Regions are described in Annex B.

**Specific to the Appalachian Region**

**Intent for the Appalachian Region:** The *riparian management zone** is designed to allow harvesting and provide flexibility for *forest** management.

6.7.3. 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, width of *riparian management zones** is increased.

**Table 1. Widths of inner and outer *riparian management zones**. Widths of outer *riparian management zones** are applicable where data do not support narrower widths[1]**

| **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 |

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

6.7.3. 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.

**Intent:** 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.

6.7.3. 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.

6.7.3. 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.

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

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

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

**Specific to the Ozark-Ouachita Region**

6.7.3. Regional Supplement8: *Riparian management zones** (i.e., streamside management zones) are provided in accordance with Table 2.

**Table 2. *Riparian management zone** widths for perennial and intermittent watercourses[1,2]**

| **Soil *erosion** susceptibility[3]** | ***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.

6.7.3. 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**

6.7.3. 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:

1) design and management is based on state *best management practices**;
2) width reflects changes in *forest** condition, stream width, *slope**, erodibility of *soil**, and potential hazard from windthrow along the length of the watercourse;
3) 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; and
4) characteristic diameter-class distributions, *species** composition, and structures are adequately maintained within the *riparian management zone**.

**Specific to the Mississippi Alluvial Valley Region**

6.7.3. Regional Supplement11: *Riparian management zones** are created and maintained in accordance with Table 3.

**Table 3 *Riparian Management Zone** Widths[1]**

| | | ***Slope**** | | | | | |
|---|---|---|---|---|---|---|---|
| **Stream Class** | **Soil *erosion** susceptibility[2]** | 0% | 10% | 20% | 30% | 40% | 50% |
| | | **Total RMZ width (ft) per side[3]** | | | | | |
| 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.

6.7.3. 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**.

6.7.3. 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.

6.7.3. 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**.

6.7.3. 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**

6.7.3. 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:

1) the upland edge of the riparian vegetation (if present); or
2) each bank of a stream or water course (in the absence of riparian vegetation); or
3) 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**.)

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

1) 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;
2) 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**;
3) where sideslopes exceed 35%, the width is at least 100 feet;
4) as necessary along ephemeral drainage patterns that exhibit a definable bank to *protect** the functions of the *riparian management zone** ; and
5) 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**.

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

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

**Specific to the Rocky Mountain Region**

**Intent for the Rocky Mountain Region:** When *riparian management zones** are established, the extent and protection that they provide is intended to be adequate to serve all the functions and objectives of such zones in *forests** under *natural conditions**. These functions include: 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.

6.7.3. 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.

6.7.3. 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. Some discretion and flexibility may be applied to management decisions in 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, as long as riparian concerns continue to receive highest priority.

**Specific to the Pacific Coast Region**

**Guidance for the Pacific Coast Region:** 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**.

6.7.3. 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**:

1) maintain or *restore** the native vegetation;
2) are limited to single-tree selection *silviculture**;
3) retain and allow for recruitment of large live and dead trees for shade and stream structure;
4) 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;
5) exclude use of heavy equipment, except to cross streams at designated places, or where the use of such equipment is the lowest impact alternative;
6) avoid disturbance of mineral *soil** (where disturbance is unavoidable, mulch and seed are applied before the rainy season); and
7) avoid the spread of *pathogens** and noxious weeds.

6.7.3. 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:

1) single-tree or group selection *silviculture** is used;
2) 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; and

3) disturbance of mineral *soil** is avoided (where disturbance is unavoidable, mulch and seed are applied before the rainy season).

6.7.3. 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.

6.7.3. 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.

6.7.3. Regional Supplement25: For Category D streams, management:

1) maintains root strength and stream bank and channel stability;
2) recruits coarse wood to the stream *ecosystem**; and
3) minimizes management-related sediment transport to the stream system.

6.7.4. Excluding *plantations**, 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 main *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.

6.7.5. *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 with those that do control such activities to attempt to have them implement *protective** measures and remedy instances in which past measures are no longer effective.

**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.

Examples of activity attributes that are important for assessments of whether activities have the "potential to significantly affect" the resources in question include: 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).

6.7.6. Authorized recreation use on the *management unit** is managed to avoid negative impacts to *soils**, water, plants, wildlife, and wildlife *habitats**.

**Intent:** This *Indicator** is intended to focus 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 ought to be addressed accordingly.

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

6.7.7. Grazing by domesticated animals is managed, based on *best available information**, 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**.

**Guidance:** Considerations for management of these situations include: the location and *intensity** of grazing (livestock numbers) and/or season of use (grazing duration). Unauthorized grazing is an illegal activity on the *management unit** and should be treated as such.

**6.8. *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**.**

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 6.8.1. To the extent feasible given the *scale** of the *management unit**, *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**.

**FF Applicability:** Unlike all other *Family Forest** *Indicators**, FF Indicator 6.8.1 may be used for evaluation of conformance (instead of Indicator 6.8.1) by both federal and non-federal *family forest** *management units** (per Federal Lands Supplement to Indicator 6.8.1).

PL 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**. *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) may conform with FF Indicator 6.8.1 instead of PL Indicator 6.8.1.

**PL 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 main *indicator** is applicable to the non-*plantation** portions of the *management unit**.

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*/protection areas**, unless an alternative plan is developed that provides greater overall *protection** of *old growth** values.

6.8.2.1. *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 prescribed burning, and thinning from below in dry *forest** types when and where *restoration** is appropriate).

6.8.2.2. *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*.*

6.8.2.3. 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 prescribed burning, and thinning from below in *forest** types when and where *restoration** is appropriate).

6.8.2.4. 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:

1) *old growth** *forests** comprise a *significant** portion of the *tribal** *management unit**;
2) a history of *forest** stewardship by the *tribal** government/organization exists;
3) *High Conservation Values** are maintained or enhanced;
4) *old growth** structures are maintained;
5) *conservation zones*/protection areas** representative of *old growth** *stand*s** are established;
6) *landscape**-level considerations are addressed; and
7) *rare, threatened, and endangered species** are *protected**.

**Applicability:** On all *management units**, 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 would be considered aligned with Indicator 6.8.2, as long as it continues to protect the old growth values.

**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 for conformance with Indicator 6.8.2, as long as *The Organization** demonstrates that unassessed areas are protected.

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:

1) *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**;
2) *conservation zones*/protection areas** 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
3) *rare, threatened, and endangered species** are *protected**.

6.8.4. If Indicator 6.6.5 regional supplementary requirements applicable to the *management unit** provide a maximum *harvest opening** size (average or absolute), and the rotation length of a *stand** meets or exceeds *culmination of mean annual increment** for *natural forest** *stands** without a history of human disturbance (i.e., not a *semi-natural forest** *stand**) of similar *forest** type and site class, then the maximum *harvest opening** size may be increased by 20% above what is specified in the supplementary requirement. For each 10-year increase in rotation length beyond the time when *culmination of mean annual increment** is met, the *harvest opening** size may be increased by an additional 20%.

**Applicability:** Given the requirements in Indicator 6.8.4, it only applies to FSC US Regions that have maximum *harvest opening** sizes (i.e., Ozark-Ouachita, Pacific Coast, and Mississippi Alluvial Valley regions), and it does not apply if *The Organization** acquired the *stand** at a time when it had already met or exceeded the *culmination of mean annual increment**.

**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. All references to 20% are relative to the maximum *harvest opening** size (i.e., they are not compounding).

**Guidance:** If the *management unit** does not have growth and inventory data for similar natural *stands** on the *management unit** as needed to establish *culmination of mean annual increment**, growth and inventory data from similar *forest** types and site classes of *natural forests** without a history of human disturbance (i.e., not a *semi-natural forest** *stand**) off the *management unit** would be the best alternative information to establish *culmination of mean annual increment**. If available, historical data from *public lands**

such as National Forests would likely be the best source of information for calculating *culmination of mean annual increment**.

**6.9. *The Organization** shall not convert *natural forest** or *High Conservation Value Areas** to *plantations** or to *non-forest land-use**, nor transform *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 *Management Unit**, and**

**b) Will produce clear, substantial, *additional**, secure long-term *conservation** and social 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**.**

**Intent:** FSC prohibits *conversion** of *forests** except in very limited circumstances

**Applicability:** Criterion 6.9 addresses *conversion** within existing FSC-certified *management units**, whereas Criterion 6.10 and Criterion 6.11 address the potential for a *management unit** to become FSC-certified if it includes lands that were previously *converted**.

**Guidance:** This *Criterion** addresses permanent or *long-term** change of *natural forest** (including *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.

*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**.

6.9.1. There is no *conversion** of *natural forest** (including *semi-natural forest**) or *High Conservation Value Areas** to *plantations** or to non-*forest** land-use, nor transformation of *plantations** to non-*forest** land use when on sites directly converted from *natural forest** (including *semi-natural forest**), except when it:

1) affects a *very limited portion** of the *management unit**;
2) will produce clear, substantial, *additional**, secure, *long-term** *conservation** and social benefits in the *management unit**; and
3) 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** (including *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 transformed to a *plantation**, then it may be transformed 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.

Documenting the rationale and evidence for conformance with Items (1), (2), and (3) would help to streamline evaluation of conformance with this Indicator.

Conformance with "clear, substantial, additional, secure, *long-term** *conservation** benefits in the *management unit**" could likely be demonstrated via documentation describing additional *conservation** and/or *restoration** of *natural forest**, particularly *High Conservation Value Areas** and/or *rare, threatened and endangered species** *habitats**, or evidence showing increased *conservation** and *restoration**. However, social benefits would also need to be demonstrated.

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.

**FF Guidance:** *The Organization** is encouraged to document the rationale and evidence for conformance with Items (1), (2), and (3).

**6.10. *Management Units** containing *plantations** that were established on areas converted from *natural forest** between 1 December 1994 and 31 December 2020 shall not qualify for certification, except where:**

**a) The *conversion** affected a *very limited portion** of the *Management Unit** and is producing clear, substantial, *additional**, secure long-term *conservation** benefits in the *Management Unit**, or**

**b) *The Organization** which was *directly** or *indirectly** involved in the *conversion** demonstrates *restitution** of all *social harms** and *proportionate** remedy* of *environmental harms** as specified in the applicable FSC Remedy Framework, or**

**c) *The Organization** which was not involved in the conversion but has acquired *Management Units** where *conversion** has taken place demonstrates *restitution** of priority *social harms** and partial *remedy** of *environmental harms** as specified in the applicable FSC Remedy Framework.**

**Applicability:** This *Criterion** only applies to *plantations** established in areas converted from *natural forests** (including *semi-natural forests**) during the time period specified in the Criterion language. *Plantations** that are established in *forests** that lack a preponderance of *native ecosystem** components (i.e., do not meet the definition of *natural forest*,* including *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** (including *semi-natural forest**) that occurred during the specified time period) 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** (including *semi-natural forest**) vs. *plantation** is provided in Annex I. As further described in Annex I, a "planted *forest**" is not necessarily a "*plantation**" since it may have many of the principal characteristics and key elements of native *forest* ecosystems** endemic to the area.

**Intent:** The time period specified in the Criterion language refers to the date of *conversion**, not the date of *plantation** establishment.

6.10.1. Based on *best available information**, accurate information is compiled on all *conversions** of *natural forest** (including *semi-natural forest**) or *High Conservation Value Area** that occurred within the *management unit** between December 1, 1994 and December 31, 2020.

6.10.2. Areas converted from *natural forest** (including *semi-natural forest**) to *plantation** between December 1, 1994 and December 31, 2020 are not certified, except where:

1) the *conversion** affected a *very limited portion** of the *management unit** and is producing clear, substantial, *additional**, secure, *long-term** *conservation** benefits in the *management unit**, or

2) *The Organization** which was *directly** or *indirectly** involved in the conversion demonstrates *restitution** of all *social harms** and *proportionate** *remedy** of *environmental harms** as specified in the applicable FSC Remedy Framework, or

3) *The Organization** which was not involved in conversion but has acquired *management units** where conversion has taken place demonstrates *restitution** of priority *social harms** and partial *remedy** of *environmental harms** as specified in the applicable FSC Remedy Framework, or

4) *The Organization** qualifies as a *small-scale smallholder**.

**6.11 *Management Units** shall not qualify for certification if they contain *natural forests** or *High Conservation Value Areas** converted after 31 December 2020, except where the *conversion**:**

**a) Affected a *very limited portion** of the *Management Unit**, and**

**b) Is producing clear, substantial, *additional**, secure *long-term** *conservation** and social benefits in the *Management Unit**, and**

**c) Did not threaten *High Conservation Values**, nor any sites or resources necessary to maintain or enhance those *High Conservation Values**.**

6.11.1. Based on *best available information**, accurate information is compiled on all *conversions** of *natural forest** (including *semi-natural forest**), or *High Conservation Value Area** that occurred within the *management unit** after December 31, 2020.

6.11.2. Areas where *natural forest** (including *semi-natural forest**), or *High Conservation Value Areas** have been converted after December 31, 2020 are not certified, except where the *conversion**:

1) affected a *very limited portion** of the *management unit**;

2) is producing clear, substantial, *additional**, secure, *long-term** *conservation** and social benefits in the *management unit**; and

3) did not damage or threaten *High Conservation Values**, nor any sites or resources necessary to maintain or enhance those *High Conservation Values**.

## *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.

**Intent:** This *Principle** is intended to ensure that management of the *management unit** is described in a comprehensive *management plan** that is 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 (per Criterion 7.1).

**Guidance:** The *management plan** could 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**. For example, it could 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.

**7.1. *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.**

**Intent:** Criterion 7.1 ensures that a *management plan**, as described in the *Principle**-level intent and guidance above, exists for the *management unit** within the scope of the certificate. Effective *management objectives** are specific, achievable, measurable, and adaptive.

7.1.1. For non-*family forest** *management units**, *The Organization's** policies support the *management plan** and are aligned with the requirements of this Standard. Summaries of these policies are included in the *management plan** and in the *management plan** summary (per Indicator 7.5.1).

**Intent:** The policy summaries are intended to include those policies that are aligned with the requirements of this standard.

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.

**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** might be needed. When documented *historic conditions** are not available, it may be necessary for *The Organization** to develop estimates from *best available information**. *Historic conditions** are intended to 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, per Indicator 7.4.1, *management plans** must be kept up to date, which means updating them when there is new information from monitoring or other information sources, and incorporation of these other activities could be achieved at the same time.

*Forest** resources are not limited to *forest** products.

FF 7.1.2. A *management plan** exists for the *management unit** and includes *management objectives** to achieve conformance with the standard.

**7.2. *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.**

**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.

7.2.1. The *management plan** describes activities to achieve the *management objectives** defined in Indicator 7.1.2.

FF 7.2.1. The *management plan** includes the following components:

1) 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).
2) 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).
3) Description of rates and methods of timber harvest (per Criterion 5.2) and *species** selection (per Criterion 10.2).
4) 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); and
   iv. protection of *viable** examples of *native ecosystems** (per Criterion 6.5) and management of *High Conservation Values** (per Principle 9).
5) Description of location and protection of *rare, threatened, and endangered species** and *rare ecological communities** (per Criterion 6.4 and Criterion 6.6).
6) Description of procedures to monitor the *forest**, including *forest** growth and dynamics, and other components as outlined in Principle 8.
7) 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.

8) 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).

9) The *management plan** summarizes the potential impact of climate change by describing:

   i. potential climate change impacts on achievement of *management objectives** and *desired future conditions**; and
   ii. *climate change adaptation strategies**, if any, that are being implemented to address identified impacts.

**FF Applicability:** *Family forest** *management units** that are FSC-certified prior to the effective date of this standard are expected to conform with Item (9) of FF Indicator 7.2.1 within 5 years of the Standard's effective date (i.e., the *achievement date**), regardless of when the next *management plan** revision is scheduled. If conformance is not achieved by 5 years following the effective date, a non-conformance will be recorded.

During the time period until conformance with Item (9) of FF Indicator 7.2.1 is achieved, or the *achievement date** arrives (whichever occurs first), the following interim indicator will be audited for conformance:

> **Interim FF Indicator 7.2.1, Item (9)** *The Organization** demonstrates that it is gathering the information and/or completing the evaluations necessary to achieve full conformance with FF Indicator 7.2.1, Item (9).

Annex L provides guidance and resources for developing *climate change adaptation strategies**.

7.2.2. For non-*family forest** *management units**, 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).

**Guidance:** Examples of attributes that will affect the appropriate level of summary/detail of *legal** status information in the *management plan** include 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** potentially held by others include: *use rights**; *Indigenous Peoples'* rights**; conservation easements, deed restrictions, and other easements or *rights** held by others; and leasing arrangements.

7.2.3. For non-*family forest** *management units**, 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).

7.2.4. For non-*family forest** *management units**, the *management plan** considers the potential impact of climate change by describing:

1) climate change-related risks and vulnerabilities that may affect achievement of *management objectives** and *desired future conditions**;

2) *climate change adaptation strategies**, if any, that are being implemented to address identified impacts.

**Applicability:** Non-*family forest** *management units**, that are FSC-certified prior to the effective date of this standard are expected to conform with Indicator 7.2.4 within 3 years of the Standard's effective date (i.e., the *achievement date**), regardless of when the next

*management plan** revision is scheduled. If conformance is not achieved by 3 years following the effective date, a non-conformance will be assessed.

During the time period until conformance with Indicator 7.2.4 is achieved, or the *achievement date** arrives (whichever occurs first), the following interim indicator will be audited for conformance:

> **Interim Indicator 7.2.4** *The Organization** demonstrates that it is gathering the information and/or completing the evaluations necessary to achieve full conformance with Indicator 7.2.4.

**Guidance:** Best practices for incorporating climate change into the *management plan** include:

- Use of *best available information** (per Annex L);
- An acknowledgement that response plans for future disturbances may be beyond historic parameters, and
- Identification of whether 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**.

7.2.5. For non-*family forest** *management units*,* 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.

**Guidance:** Potential considerations include:

- 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 *management unit**, as indicated by *forest** type; and
- *species** or *species** groups that may be significantly affected by *habitat** loss or fragmentation on the *management unit**.

7.2.6. For non-*family forest** *management units*,* the *management plan** includes a description of the following resources and outlines activities to *conserve**:

1) *rare, threatened, and endangered species** and natural communities (per Criterion 6.1 and 6.4);
2) plant *species** and community diversity and wildlife *habitats** (per Criterion 6.1 and 6.6);
3) water resources (per Criterion 6.1 and 6.7);
4) *soil** resources (per Criterion 6.1 and 6.7);
5) *Representative Sample Areas** (per Criterion 6.5);
6) other special management areas designated by *The Organization**; and

7) *forest* ecosystem services** and resources that support public values (per Criterion 6.1).

**Guidance:** For conformance with this *Indicator*,* the *management plan** will need to have sufficient detail to describe the current resources and how *The Organization** complies with the referenced Criteria.

The *management plan** does not need to provide all management details. For example, it might reference supporting guidelines and policies that describe specific management practices, while site-specific information and practices are included in operational plans.

7.2.7. For non-*family forest* management units*,* 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).

7.2.8. For non-*family forest* management units*,* 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).

**Guidance:** The plan could also reference supporting guidelines and policies that describe specific management practices.

7.2.9. For non-*family forest* management units*,* 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), including potential impacts on stocking or harvest.

**Intent:** Disease could include biotic factors (e.g., fungi and other *pathogens**) and/or abiotic factors (e.g., acidic deposition).

**Guidance:**

The *management plan** could reference supporting guidelines and policies that describe specific *management activities**.

For conformance with Indicator 7.2.9, the level of detail in the description will need to be commensurate with the likelihood of outbreaks or infestations.

7.2.10. For non-*family forest* management units*,* if *pesticides** are used, the plan describes how the management system conforms with Criterion 10.7.

7.2.11. For non-*family forest* management units*,* if *biological control agents** are used, the *management plan** describes how the management system conforms with Criterion 10.8.

7.2.12. For non-*family forest* management units*,* 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:

1) traditional *cultural** resources and *rights** (per Criteria 3.2, 4.1 and 4.2);
2) other identified *rights** (per Criteria 1.2);
3) *workers*'* rights, *gender equity**, and occupational health and safety (per Criteria 2.1, 2.2 and 2.3)
4) ceremonial, archaeological, and historic sites (per Criteria 3.5 and Principle 9);
5) other values of importance to *local communities** (per Indicator 4.5.1);

6) public access to and use of the *forest** and other recreation issues (per Criterion 6.1); and

7) 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).

7.2.13. For non-*family forest** *management units**, the *management plan** describes the general purpose, condition, and maintenance needs of the *transportation system** (see Indicator 10.10.2).

**Intent:** The *transportation system** includes roads, skid trails, landings, and stream crossings. Management needs include maintenance, upgrades, closures, etc.

7.2.14. For non-*family forest** *management units**, 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 *conservation**, and *restoration** objectives within the *management unit** (per Criteria 6.5 and 6.6).

**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 6.6.1, Indicator 10.5.1, Indicator 10.11.3, nor Indicator 7.2.14.

7.2.15. For non-*family forest** *management units**, the *management plan** describes how harvest rate calculations were developed to meet the requirements of Criterion 5.2.

**Guidance:** The description will likely include the methods used to calculate the harvest level, and 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**.

7.2.16. For non-*family forest** *management units**, the *management plan** includes a description of the monitoring protocol developed to address the requirements of Criterion 8.2.

7.2.17. For non-*family forest** *management units**, the *management plan** includes maps describing the resource base, the characteristics of general management zones, special management areas, *restoration** areas and *conservation zones*/protection areas** at a level of detail to achieve *management objectives** and *protect** sensitive sites.

**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 might need to 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**;
- archaeological 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 (per Criterion 7.5).

7.2.18. For non-*family forest** *management units**, the *management plan** describes the stakeholder consultation process (per Criteria 7.6).

7.2.19. Activities undertaken on the *management unit** are consistent with the *management plan**.

**7.3. The *management plan** shall include *verifiable targets** by which progress towards each of the prescribed *management objectives** can be assessed.**

7.3.1. *Verifiable targets**, and the frequency at which the targets will be monitored, are established for each *management objective** (per Criterion 7.1) and are used as the basis for monitoring, as described in Principle 8.

**Guidance:** To be effective, targets will need to be measurable (where possible), address short-term and *long-term** time frames (as applicable), and each is supported by a rationale, including underlying assumptions. Quantitative targets are preferred, but qualitative targets could be more applicable for some *management objectives**.

FF 7.3.1. For each *management objective** identified per FF Indicator 7.1.2, *The Organization** demonstrates how it will measure progress toward achieving the objective.

**7.4. *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.**

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 at least every 10 years (unless a longer management plan revision cycle is a statutory requirement but not to exceed 15 years) and, if necessary, updated.

**Guidance:** Reasons for modifying/updating the components of the *management plan** 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.

**7.5. *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.**

**Intent:** The intent is to allow the owner or manager of a private *forest** to withhold proprietary information (e.g., timber volumes by size and *age class**, marketing strategies, and other financial information), while sharing information from the plan that informs *stakeholders** about *management activities** and implementation of the *Principles**, *Criteria**, and *Indicators** found in this Standard.

7.5.1. For non-*family forest** *management units**, 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 *publicly available** at no charge.

**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.

For conformance with Indicator 7.5.1, *The Organization** will needs to make a *reasonable** attempt to provide summaries of information that is considered confidential in such a way as to protect its confidentiality.

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:** For conformance with Indicator 7.5.2, it would be appropriate to include more information than is available in the public summary shared per Indicator 7.5.1, if it is relevant to *management activities** that are likely to directly affect the *stakeholders** who are requesting the information. Examples include components associated with *management activities** that: require use of shared road access; occur along shared property lines; occur upstream from other property owners.

**7.6.** ***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.**

**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:** Per the following *Indicators**, *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. Documenting significant *stakeholder** input, including how it was used or why it was not used, would help to streamline evaluation of conformance with *Indicators** in this *Criterion**. While not required in any *Indicator**, responding directly to the applicable *stakeholder** with this information would increase the overall value of *engagement**.

7.6.1. For non-*family forest** *management units**, *The Organization** seeks and considers in *good faith** input in management planning from *affected stakeholders** and also *engages** with applicable *affected stakeholders** in the following processes:

1) Dispute resolution processes (per Criterion 1.6)
2) Identification of *rights** (per Criterion 3.1 and Criterion 4.1)
3) Identification of special sites (per Criterion 3.5 and Criterion 4.7)

4) *Local communities** socio-economic development activities (per Criterion 4.4)

5) Identification of impacts on *local communities** (per Criterion 4.5)

6) High Conservation Value* assessment, management and monitoring (per Criterion 9.1, Criterion 9.2 and Criterion 9.4).

**Guidance:** Conformance with the *Indicators** that require *engagement** in the referenced *Criteria** will ensure conformance with the sub-elements of Indicator 7.6.1.

7.6.2. *Affected stakeholders** are apprised of relevant activities in advance of the action and provided an opportunity to offer input.

**Intent:** This *Indicator** focuses on stakeholder consultation in operations that may directly and negatively affect stakeholders, such as logging, burning, spraying, or traffic.

**Guidance:** Direct communication is not necessarily required for conformance, *The Organization** could instead post signs or implement other measures that are readily noticeable by likely *affected stakeholders**. Some situations might warrant direct communication.

”In advance” means within a time frame appropriate to the situation that allows for addressing *affected stakeholder** input. A separate communication for each activity will not always be needed; batching of notifications for a period of time could be appropriate for some activities.

FF 7.6.2. *Affected stakeholders** 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.

**FF Guidance:** Considerations of input that *The Organization** receives per Indicator 7.6.2 when the *management plan** is next revised is adequate for conformance.

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 7.6.3. For non-*public land** *family forest** *management units**, upon verbal or written request, *interested stakeholders** are provided an opportunity to offer input on *management activities** that affect their interests, and this input is considered in *good faith** when the *management plan** is next revised.

**FF Applicability:** *Public land** *management units** conform with the main *indicator**.

7.6.4. For *public lands**, engagement includes the following components:

1) 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.

2) Draft and final *management plan*s*, revisions, and supporting documentation are easily accessible for public review and comment prior to their implementation.

3) 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.

4) Public comments are addressed and plans modified to ensure their conformance with this Standard.

5) An accessible appeals process to planning decisions is available.

**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** could be wide-ranging geographically.

To achieve conformance with Indicator 7.6.4, the public *engagement** will likely need to be accessible to individuals, organizations, and other social units that could be affected economically, environmentally, or socially by *management activities** on the *management unit**. By definition, this includes all citizens of the relevant entity (county, city, state or nation).

7.6.5. Organization maintains a diverse, representative, and relevant *stakeholder** list, complete with contact information.

**Guidance:** For conformance with Indicator 7.6.5, the *stakeholder** list will likely need 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.

## *PRINCIPLE** 8: MONITORING AND ASSESSMENT

*The Organization** shall demonstrate that, progress towards 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**.

**Guidance:** The monitoring protocols required per Indicator 8.1.1 and Indicator 8.2.1 could 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**. For example, it could include a combination of ownership-level, unit, and/or site-level monitoring approaches, GIS, published guidelines, landowner policies, and other information.

For conformance with the *Indicators** of this *Principle**, monitoring will need to 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 could also contribute to demonstrating conformance with the Standard.

Per Principle 8, it is appropriate to reflect the *scale**, *intensity**, and *risk** of the attributes and operations on the *management unit** in the scope and robustness of the monitoring program.

**FF Guidance:** On *family forest** *management units**, an informal, non-technical and qualitative monitoring approach will likely be adequate to ensure conformance for most monitoring expectations. Although, attributes such as harvest volume, and stand stocking, will most likely 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 approaches are not required to be written; but will need to be consistently described and implemented by *The Organization** for conformance with the applicable *Indicators**.

**8.1. *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**.**

8.1.1. *The Organization** develops and consistently implements a regular and replicable written protocol to monitor its policies (per Indicator 7.1.1), *management objectives** (per Indicator 7.1.2), and achievement of *verifiable targets** (per Indicator 7.3.1) relevant to the Standard. The protocol describes monitoring procedures and their frequency.

FF 8.1.1. *The Organization** implements a protocol to monitor achievement of *management objectives** identified per FF Indicator 7.1.2.

**FF Guidance:** The protocol does not have to be written, but does need to be consistently described and consistently implemented, and produce documented results.

8.1.2. For non-*family forest** *management units**, the monitoring protocol, evaluates:

1) changes in the potential impacts associated with climate change–related risks and vulnerabilities (per Indicator 7.2.4);
2) how any changes detected per (1) will potentially affect achievement of *management objectives** and *desired future conditions** (per Indicator 7.1.2); and
3) the effectiveness of implemented *climate change adaptation strategies** (per Indicator 7.2.4).

**Applicability:** Indicator 8.1.2 is only applicable once *The Organization** has fully conformed with Indicator 7.2.4. Item (3) is only applicable if *climate change adaptation strategies** are implemented per Indicator 7.2.4.

Additional guidance and resources are provided in Annex L.

**8.2. *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.**

**FF Guidance:** Examples of informal monitoring activities include repeatedly documenting the answers to a consistent set of questions, repeatedly taking photographs from the same location, and documenting/recording visual observations at a set frequency.

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.

**Intent:** Indicators 6.6.4, 9.4.1, 10.2.2, 10.3.2, and 10.8.1 explicitly require monitoring and therefore must be addressed in the monitoring protocol. The expectations for monitoring associated with these *Indicators** are incorporated into the potential monitoring protocol elements listed in Annex J. While the remaining elements listed in Annex J are not explicitly required to be part of the monitoring protocol, monitoring at some level (if applicable to the *management unit**) will assist with demonstration of conformance with the rest of the Standard.

FF 8.2.1. The social and environmental impacts of *management activities** and changes in key environmental conditions are monitored, through formal or informal means, and documented.

**FF Guidance:** Annex J indicates which potential monitoring elements are expected to be considered and includes those required by the *Indicators** identified in the above Indicator 8.2.1 Intent note.

8.2.2. *Stakeholder** responses to management activities are considered when developing monitoring approaches.

**Guidance:** Considerations will likely need to include: 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**.

For demonstrating conformance with Indicator 8.2.2, it would be valuable 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 Guidance:** While *stakeholder** engagement is not required during development of monitoring approaches, for conformance with Indicator 8.2.2, any input that *The Organization** receives from *stakeholders** in response to *management activities** will need to be assessed for applicability to monitoring approaches.

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 8.2.3. *Cultural** sites identified per Indicator 3.5.1 are monitored, through formal or informal means, and documented. Applicable *Native American** *Indigenous Peoples** are offered the opportunity to jointly monitor the sites.

**8.3. *The Organization**** **shall analyze the results of monitoring and evaluation and feed the outcomes of this analysis back into the planning process.**

**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. Therefore, 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.

8.3.1. If monitoring or evaluation indicates that *management objectives** (per Indicator 7.1.2) and *verifiable targets** (per Indicator 7.3.1) are not being met, the *management plan** is revised.

**Intent:** If monitoring confirms *management objectives** are being met, then *management plan** revision is not required.

FF 8.3.1. If monitoring or evaluation indicates that *management objectives** (per FF Indicator 7.1.2) are not being met, *management activities** are adapted.

8.3.2. If monitoring or evaluation shows that the *management objectives** (per Indicator 7.1.2) and *verifiable targets** (per Indicator 7.3.1) 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.

FF 8.3.2. If monitoring or evaluation shows that the *management objectives** identified per FF Indicator 7.1.2 are not sufficient to ensure conformance with this Standard, then they are modified.

**8.4. *The Organization**** **shall make *publicly available**** **a summary of the results of monitoring free of charge, excluding *confidential information**.**

8.4.1. While protecting *confidential information**, either full monitoring results or a summary of the most recent monitoring information, including maps when applicable, is readily available (per Criteria 8.1 and 8.2) and is *publicly available**, at no cost.

**Guidance:** Conformance with this indicator does not require that publicly shared (e.g., website) monitoring results are continuously updated; however, upon request, the most recent monitoring information (full report or summary) needs to be provided in a *reasonable** amount of time.

FF 8.4.1. While respecting *confidential information**, a summary of monitoring and evaluation results for relevant elements are provided upon request and free of charge to *affected stakeholders**.

**FF Guidance:** For conformance with this indicator, the summary does not have to be written, it could be a verbal summary that is based on the documented monitoring results.

**8.5. *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.**

**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.

8.5.1. When *forest** products are sold with a FSC claim, 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. In addition to this system, *The Organization**:

1) supports *transaction verification** by providing *FSC transaction** data, as requested by the *Certification Body**; and
2) 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 could potentially 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 Annex A (i.e., the Glossary) to further understand *transaction verification** and *fiber testing** requirements.

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:

1) common and scientific *species** name;
2) product name, description, or grade;
3) volume (or quantity) of product;
4) information to trace the material to the point of origin;
5) date or timeframe when the product was harvested, hauled outside the forest gate, or delivered to the purchaser;
6) if primary manufacturing activities took place prior to products being hauled outside the forest gate, the date and volume produced; and
7) whether the material was sold or delivered with a FSC claim.

**Guidance:** Actual volumes are used per unit of measure in which the product is sold and estimated volumes are used for lump-sum sales. Reporting related to "primary manufacturing" would apply to any processing that transforms virgin roundwood or chip materials into other products.

8.5.3. Sales invoices for the point of ownership transfer and transport documents are kept for a minimum of five years for all products sold or delivered by *The Organization** with a FSC claim. Sales invoices identify, at a minimum, the following information:

1) name and address of purchaser;

2) the date of ownership transfer;
3) common and scientific *species** name;
4) product name, description, or grade;
5) the volume (or quantity) of product sold;
6) *The Organization's** certificate code; and
7) 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:

1) *The Organization's** certificate code;
2) identification of the purchaser and destination;
3) the date of transport or delivery;
4) common and scientific *species** name;
5) product name, description, or grade;
6) the volume (or quantity) delivered;
7) load or batch reference number; and
8) reference linking the shipment to the sales invoice.

**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.

FF 8.5.3. Sales documents are kept for a minimum of five years for all products sold with a FSC claim. Sales documents identify, at a minimum, the following information:

1) name and address of purchaser;
2) the date of ownership transfer;
3) product name, description, or grade;
4) the volume (or quantity) of product sold;
5) *The Organization's** certificate code; and
6) the FSC claim "FSC 100%," identifying products sold as FSC-certified.

Common and scientific *species** name information is reported as part of annual audits.

## *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**.

**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. Per the *Indicators** of this Principle, 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. Consultation with Annex K is required per Indicators 9.1.1, 9.2.1 and 9.4.1, and 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.

**Guidance:** Per Indicator 6.5.7, designated *High Conservation Value Areas** may be recognized as part of the *Conservation Area Network**.

*to* facilitate meaningful comments and input while respecting applicable confidentiality, *stakeholder** *engagement** will likely need to be timely and provide sufficient details to *stakeholders**.

*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**.

**9.1. *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**.**

**FF Guidance:** As indicated in Criterion 9.1, 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.

9.1.1. Using *best available information**, a documented assessment is completed in a manner consistent with Annex K, that records the location and status of *High Conservation Values** and the *High Conservation Value Area*s* on which they rely.

**Guidance:**

Input from stakeholder engagement and/or monitoring per Criterion 9.4 could potentially be cause for updating the assessment.

9.1.2. The assessment (per Indicator 9.1.1) is reviewed as part of the review of the *management plan** (per Indicator 7.4.1) and, if necessary, updated.

9.1.3. *The Organization** conducts *engagement** with *affected stakeholders** and *interested stakeholders** and includes the resulting input in the assessment.

**Intent:** *Stakeholder** *engagement** is also expected to occur for updates to the *High Conservation Values** assessment (per Indicator 9.1.2).

FF 9.1.3. *Engagement** necessary for conformance with Indicator 9.1.1 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**.

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 these 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:** Documenting rationale when it is not possible to integrate information received from stakeholder consultations and public review would help to streamline evaluation of conformance with this *Indicator**. 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.

**9.2. *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.**

9.2.1. The Organization* identifies and documents the threats to High Conservation Values* using best available information*.

9.2.2 Prior to implementing potentially harmful *management activities**, *The Organization** develops *management strategies** necessary to ensure *High Conservation Value** maintenance and/or enhancement, including consultation of Annex K.

**Intent:** Documenting rationale for lack of action to address risks to *High Conservation Values** that are beyond the control of *The Organization** (e.g., acid deposition, *invasive species** that are infeasible to control), would help to streamline evaluation of conformance with this indicator.

9.2.3. *The Organization** holds consultations with *affected stakeholders*, interested stakeholders**, and *experts** to request input on effective *management strategies** for the maintenance and/or enhancement of the *High Conservation Values** and *High Conservation Value Areas**.

**Guidance:** *Experts** are normally independent, but could potentially include employees of *The Organization** who possess the requisite expertise. External *stakeholders** with experience pertinent to the *High Conservation Value** will likely be valuable sources of information.

Consultations could potentially be done concurrently with *engagement** associated with other indicators (e.g., Indicator 9.1.3).

9.2.4. 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**:

1) are restricted to a *very limited portion of the core area**;
2) do not reduce the *core area** below 123,553 acres (50,000 hectares); and
3) will produce clear, substantial, additional *long-term** environmental and social benefits.

**9.3. *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.**

9.3.1. *The Organization** implements the *management strategies** developed per Criterion 9.2 to maintain and/or enhance the *High Conservation Values** and *High Conservation Value Areas** identified per Criterion 9.1.

9.3.2. *Management activities** implemented prevent damage and avoid risks to *High Conservation Values**, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of *High Conservation Values** are uncertain.

9.3.3. If ongoing activities are harming *High Conservation Values**, the cause of the harm is ceased immediately. *The Organization** responds promptly to mitigate negative impacts to *High Conservation Values** resulting from activities implemented by *The Organization** or others and to take action 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, for conformance with this Indicator*, *The Organization** is not necessarily obliged to 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.

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** implements actions to coordinate conservation efforts with adjacent landowners.

**9.4. *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.**

9.4.1. *The Organization** implements, or participates in a program to implement, a monitoring protocol that:

1) includes periodic monitoring of the status of the specific *High Conservation Values** with sufficient scope, detail and frequency to detect changes in the status of *High Conservation Values**;
2) includes periodic monitoring of the effectiveness of the *management strategies** implemented to maintain or enhance the values; and
3) was developed with consultation of Annex K.

**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 ought to increase to ensure the maintenance of the *High Conservation Values**. For *High Conservation Value Areas** that are not managed and/or are ecologically stable, less frequent and lower *intensity** of monitoring might be appropriate. But for conformance with this indicator, the monitoring needs to be adequate to allow *The Organization** to be able to evaluate whether the status of the values has changed.

FF 9.4.1. On non-*public land**, monitoring is sufficient to identify and describe changes to status of *High Conservation Values**.

**FF Applicability:** *Public land** *management units** conform with the main *indicator**.

9.4.2. The Organization* includes engagement* with *affected stakeholders*, interested stakeholders**, and *experts** in its *High Conservation Values** monitoring program (per Indicator 9.4.1).

**Guidance:** Engagement with *experts**, and *stakeholders** (including *rights holders**) will generally be during establishment of the monitoring program, although in some cases consultation might be valuable as part of implementing the program.

Considerations regarding information gained through this engagement* will likely need to include:: 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 9.4.2. The Organization* engages*, through formal or informal means, with affected stakeholders*, interested stakeholders*, and experts* as part of its High Conservation Values* monitoring (per Indicator 9.4.1).

**FF Guidance:** For conformance with this indicator, the engagement does not need to be completed via a systematic or comprehensive outreach process, it could be a series of in-person or electronic communications that are documented. *Engagement** for conformance with FF Indicator 9.4.2 could potentially be conducted at the same time as *engagement** for other parts of the standard (e.g., FF 9.1.3).

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**. Adapted strategies maintain or enhance *High Conservation Values*,* based on *best available information**.

## *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.

**10.1. 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**.**

10.1.1. Harvested sites are regenerated in a *timely manner** to maintain *environmental values**.

**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**.

10.1.2. Regeneration activities following harvest of *natural forests** (including *semi-natural forests**) are implemented in a manner that provides for the development of a replacement stand which is similar to *pre-harvest** or *natural forest** (including *semi-natural forest**) composition and structure. For harvest of *degraded forest stands**, regenerate to more *natural conditions**.

**Guidance:** Improving the ecological conditions of a degraded *forest** could potentially be a step-wise process, with initial steps including 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**.

*Regeneration harvests** are generally intended to 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 Southwest Region**

10.1.2. 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; where seed trees are lacking; and as part of *climate change adaptation strategies** (per Indicator 10.2.2).

**Specific to the Ozark-Ouachita Region**

10.1.2. 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).

PL 10.1.2. Regeneration activities following harvest of *plantations** are implemented in a manner that provides for the development of a replacement stand with a vegetative cover that is ecologically similar to what existed prior to the harvest, or to more *natural conditions** using ecologically well-adapted *species**.

**10.2. *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.**

**Guidance:** *Native species** suited to the site are normally used for regeneration. When *non-native species** are used for regeneration per Indicator 10.2.2, conformance with the indicators of Criterion 10.3 is also required.

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** may be used in limited instances for artificial regeneration per Indicator 10.2.2.

**Intent:** The intent of this *Indicator** is to maintain *local** genetic diversity.

**Guidance:** Use of local *genotypes** could be demonstrated by knowing the provenance of the seed or plant material and demonstrating that the material is sourced from a compatible seed zone.

FF 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**.

**FF Guidance:** Justification provided verbally could potentially be adequate.

PL 10.2.1. *Species** used for planting are suitable and appropriate to the site and are consistent with maintaining *management unit** health and productivity. 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**.

**PL Guidance:** Criterion 6.9 addresses establishment of *plantations**.

**Specific to the Pacific Coast Region**

PL 10.2.1. 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 10.2.1. Regional Supplement2 The planting of *non-native species** is used only for site *restoration**.

10.2.2. *Non-native species** may be used for *stand** regeneration under these limited circumstances:

1) *Non-native** tree *species** existed in the *stand** *pre-harvest**; or
2) *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**; or
3) *Non-native species** are demonstrated to be essential for maintaining or enhancing *local** diversity as part of *climate change adaptation strategies**, or disease or pest resistance.

If per Item (3), a plan for using *non-native species** is developed that:

i. prioritizes use of *non-native species** from the *management unit's** *ecoregion** or neighboring *ecoregions** over more distant regions;
ii. 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/or other values compared to *native species**;
iii. includes maps of planted areas; and

iv. 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.

**Guidance:** Indicator 10.2.2 is not applicable to the use of biological control agents. Biological controls are addressed in Criterion 10.8.

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.

**10.3. *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.**

**Intent:** This *Criterion** applies to how *non-native species** introduced by *The Organization** 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.

**Guidance:** Prevention and control of *invasive species** that are present in the management unit but not introduced by *The Organization** is addressed per Indicator 6.6.4.

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** are likely the best source of information 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 consultation with a state *expert** in *invasive species** would be extremely valuable.

For conformance with Indicator 10.3.1, *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**.

10.3.2. If *non-native species** are used:

1) the planting is spatially and temporally explicit;
2) the location and provenance are documented;
3) a documented plan to carefully monitor *non-native species** to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts is developed;
4) the ecological effects are actively monitored and documented; and
5) effective mitigation measures are in place to control their spread outside the area in which they are established.

**Guidance:** For item (3), monitoring *intensity** will likely need to reflect the persistence and risk posed by the *species** and could potentially be justified by consultation with regional *experts** or literature.

10.3.3. *The Organization** controls the spread of *non-native species** that were introduced per Indicator 10.3.1 and Indicator 10.3.2 and that have become invasive.

**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 (5) of Indicator 10.3.2.

**Intent:** This *Criterion** is specifically for cases that involve the intentional use of *non-native species**. It does not fully address *invasive species** (this is addressed in Indicator 6.6.4).

**FF Guidance:** Control efforts are expected to be within their financial capacity and aim to minimize any further adverse impacts.

**10.4. *The Organization** shall not use *genetically modified organisms** in the *Management Unit**.**

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.

**10.5. *The Organization** shall use *silvicultural** practices that are ecologically appropriate for the vegetation, species, sites and *management objectives**.**

10.5.1. *Silvicultural** practices (per Indicator 7.2.14 or FF Indicator 7.2.1, as applicable) are implemented that are ecologically appropriate for the site and *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 5.2.4, Indicator 6.6.1, Indicator 7.2.14, Indicator 10.11.3, nor Indicator 10.5.1.

**10.6. *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.**

**FF Intent:** Working to minimize impacts from fertilizers* is essential, regardless of the *scale** or *intensity** of the *management unit**. However, conformance with Indicators 10.6.1, 10.6.4 and 10.6.5 is intended to be sufficient for ensuring that the primary purpose of this Criterion is addressed for *family forest** *management units**.

10.6.1. The use of *fertilizers** is minimized or avoided.

10.6.2. When fertilizers* are used in non-family forest* management units*, b*est available information** indicates that their ecological and economic benefits are equal to or greater than those of *silvicultural** systems that do not require *fertilizers**.

PL 10.6.2. *Fertilizer** is applied only when all of the following conditions are met:

1) 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.
2) *Best available information** indicates that 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.

3) *Best available information** indicates that 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.

4) *Fertilizer** application maintains or enhances *soil** condition and site productivity.

10.6.3. When fertilizers* are used in non-family forest* management units*, their types, rates, frequencies, and site of application are documented.

10.6.4. When *fertilizers** are used, *environmental values** are protected, including through implementation of measures to prevent damage.

**Guidance:** Potential damage could be from direct impacts, runoff or leaching. Examples of *environmental values** that could be affected include native low-nutrient *ecosystems**, and below-ground or surface *water quality**.

10.6.5. Damage to *environmental values** resulting from *fertilizer** use is mitigated or repaired.

**10.7. *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.**

**Intent:** This *Criterion** is guided by the FSC Pesticides Policy (FSC-POL-30-001 EN). Aligned with the Policy, *The Organization** is expected to prioritize use of non-*pesticide** alternatives when possible, and then prioritize use of biological *pesticides** over *chemical pesticides** when *pesticides** are necessary. Finally, if *chemical pesticides** are used, *The Organization** is expected to strive to minimize their use and minimize potential risks to humans and *environmental values**.

**Guidance:**

Per the FSC Pesticides Policy, *The Organization** is expected to use *integrated pest management** to consider and document the different control techniques available. 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), followed by documentation (i.e., an Environmental and Social Risk Assessment) of identified *risks** and the *risk** mitigation that will 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 could potentially be addressed by *The Organization** in either a single document, or a collection of documents and documented information.

Following *catastrophic natural disturbances** (e.g., wildfire), there is a potential for a temporary increase in *pesticide** use, but conformance with all Criterion 10.7 *Indicators** is still expected.

10.7.1. *Integrated pest management** (i.e., IPM), including selection of *silviculture** systems, is documented and is used to avoid or minimize the frequency, extent, and amount of *chemical pesticide** applications, and where possible to eliminate *chemical pesticide** use.

**Intent:** An *integrated pest management** strategy is not static. If information such as advancements in science and technology and market signals (i.e., those that make alternative control measures operationally or financially feasible) suggest it is appropriate, *The Organization** might need to adapt its *integrated pest management**.

**Guidance:** Strategies for controlling vegetation or other pests that minimize negative environmental effects 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:** Brief and less technical documentation of *integrated pest management** might potentially be appropriate for *family forest** *management units**.

10.7.2. When *pesticides** *(*biological or chemical*)* are used, *The Organization** demonstrates that:

1) *best available information** supports that the *pesticide** is the most effective, practical, and cost-effective option to control the pest, compared with other non-pesticide and pesticide options; and
2) for biological *pesticides**, the selected *pesticide** (compared with other *pesticide** options), and the selected application method, timing and pattern of use (compared with other application, timing and pattern options) offers the least *risk** to humans and non-target *species**.

**Applicability:** Item (2) of Indicator 10.7.2 is not applicable for *chemical pesticides**, as similar expectations for *chemical pesticides** are addressed per Indicator 10.7.3.

**Guidance:** Conformance with Indicator 10.7.2 does not have to occur at the scale of an individual application or site, and could be done at a coarser scale, provided the conditions considered are consistent across applications and sites.

10.7.3. 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:** An Environmental and Social Risk Assessment is just one of the requirements included in Clause 4.12 of the Pesticides Policy. Other elements address expectations to prioritize less hazardous *chemical pesticides**, other specific considerations when selecting a pest control option, specific expectations for when *chemical pesticides** are used, and additional expectations if *The Organization** uses *pesticides**.

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:** Brief and less technical documentation of the Environmental and Social Risk Assessment might potentially be appropriate for *family forest** *management units**, but all elements are still required.

10.7.4. *Pesticide** (biological or chemical) use is documented.

**Guidance:** information to document includes: trade name, active ingredient, quantity of active ingredient used, date(s) of use, method of application, number and frequency of applications, location and area of use and reason for use.

**FF Guidance:** Brief and less technical documentation of pesticide use might potentially be appropriate 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.

10.7.5. Environmental and Social Risk Assessments (per Indicator 10.7.3) 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).

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 10.7.3).

10.7.7. Damage *to environmental values** and human health from *pesticide** use is prevented and mitigated or repaired where damage occurs.

**10.8. *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**.**

10.8.1. The use of *biological control agents** is minimized, *monitored**, and controlled. *Biological control agents** are used only:

1) as part of *The Organization's** *integrated pest management** system per Indicator 10.7.1;

2) when *best available information** indicates that the ecological benefits of using *biological control agents** are greater than the benefits of using other *management strategies** with similar outcomes; and

3) when *best available information** indicates that the agents in question are non-invasive and are safe for *native species**.

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).

10.8.3. The use of *biological control agents** is recorded, including type, quantity, period, location, and reason for use.

10.8.4. Damage to *environmental values** caused by the use of *biological control agents** is prevented and mitigated or repaired where damage occurs.

**10.9. *The Organization** shall assess *risks** and implement activities that reduce potential negative impacts from *Natural Hazards** proportionate to *scale, intensity, and risk**.**

10.9.1. *The Organization** assesses potential impacts of *natural hazards** on *infrastructure**, *forest** resources, and communities in the *management unit** and then within its control, implements or adapts *management activities** to mitigate these impacts.

10.9.1.1 The assessment includes consideration of potential for *management activities** to increase negative impacts.

10.9.1.2 Implemented *management activities** maintain the *ecosystem** function of natural disturbances where feasible.

**Guidance:** As part of conformance with this Indicator*, in *forest** types that are fire-adapted or at risk of wildfire, *The Organization** might need to identify and apply 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** will generally mean supporting *resilience** as opposed to eliminating or preventing the occurrence of the *natural hazards**.

**PL Guidance:** Methods could potentially 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.

FF 10.9.1. *The Organization** demonstrates knowledge of *natural hazards** that may affect the *management unit** and the activities that have been implemented to mitigate potential negative impacts from the *natural hazards**.

10.9.2. For non-family forest* management units*, management activities* are implemented to increase the resilience* of ecosystems* to catastrophic natural disturbances* identified per Indicator 6.1.1.

**Guidance:** In the context of climate change, linkages could potentially exist between expected future impacts of climate change and *catastrophic natural disturbances**. The fuels management practices described per Indicator 10.9.1 Guidance might therefore be relevant in this context. The Climate Change Toolkit in Annex L provides additional resources.

**10.10. *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.**

10.10.1. *Infrastructure** and the *transportation system** are designed, constructed, and maintained to reduce and minimize short-term and *long-term** impacts on *environmental values** identified per Indicator 6.1.1 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:

1) *infrastructure** and road density;
2) *soil** and water disturbance, including *erosion** and sediment discharge to streams and other *waterbodies**;
3) fragmentation of wildlife *habitat** and migration corridors; and
4) area converted to *infrastructure**, roads, landings, and skid trails.

**Intent:** This *Indicator** is not intended to suggest that all roads should be closed, but instead that *The Organization** should look for opportunities to reduce the extent of roads within the *management unit** (e.g., legacy roads with high environmental impact, roads no longer necessary for *management activities**).

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

FF 10.10.1. *The Organization** reduces environmental impacts of *infrastructure** and the *transportation system** by minimizing *soil** and water disturbance, including *erosion** and sediment discharge to streams, and making efforts to rehabilitate degraded roads.

10.10.2. 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 eliminate the movement of aquatic *species**. Temporary crossings are *restored** to original hydrological conditions when operations are finished.

**Guidance for <u>All Regions</u>:** For conformance with this Indicator*, The Organization* will likely need to use best available information* to design crossing structures that match the natural stream width, depth, velocities, and substrate through the crossing structure, as anticipated for the life of the structure.

*The Organization** will also likely need to 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.

**Guidance for the <u>Pacific Coast Region</u>:** The above design considerations will likely need to include accommodations for a 100-year peak flood event or to limit the consequences of an unavoidable failure.

10.10.3. *Silvicultural** activities are managed to ensure protection of the *environmental values** identified per Indicator 6.1.1.

10.10.4 Disturbance or damages to *water courses*, water bodies**, *soils**, *rare and threatened species*, habitats*, ecosystems** and *landscape values** are prevented, mitigated and repaired in a *timely manner**, and management activities modified to prevent further damage.

**10.11. *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.**

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 and are followed during implementation. Plans clearly describe: the activity; the relationship to *management objectives**; intended outcomes; measures to *protect** and/or enhance potentially affected *environmental values** (per Indicator 6.1.1) and social values (per Criteria 1.2, 3.2, 3.5, 4.1, and 4.5); and measures for health and safety (per Criteria 2.3 and 10.7). Plans include maps of adequate detail.

10.11.1.1 For *public lands**, plans are made available to the public prior to commencement of significant site-disturbing *management activities**.

**Intent:** This *Indicator** ensures that *management activity** implementation is aligned with the *management plan** and other elements of this standard. Plans may address multiple sites with similar planned activities and similar conditions.

Desired outcomes include both the immediate post-activity condition (e.g., stocking and composition) and desired longer-term outcomes (e.g., regeneration).

**Guidance:** Operation plans could potentially be integrated into the *management plan** (more likely on *family forest* management units**) 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).

"Significant" site-disturbing management activities include larger-scale activities and/or activities with longer-lasting effects. They will likely include site preparation, prescribed burns, use of *pesticides** (chemical or biological) or *biological control agents**, and road building. Regular maintenance of existing roads will typically not require written plans per Indicator 10.11.1, but plans will be expected for more significant activities. Development of a plan ought not cause delay in emergency situations, such as response to wildfire or other emergency response efforts.

This *Indicator** could potentially be addressed with a combination of documents, such as contracts, maps, *best management practices**, and pre-harvest checklists.

For *public lands**, *The Organization** is expected to address public comments as part of the process of revising plans developed per Indicator 10.11.1.

**FF Guidance:** Brief and less technical written plans could potentially be appropriate for *family forest* management units**.

10.11.2. *The Organization** optimizes the use of harvested *forest** products and minimizes the loss and/or waste of harvested *forest** products.

**Guidance:** "Waste" typically 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**). A small portion of the harvested material for which there is not a market (e.g., tree tops, limbs) is not automatically waste when left on site.

FF 10.11.2. *The Organization** optimizes the use of harvested *forest** products and minimizes the loss and/or waste of harvested *forest** products.

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:

1) Logging and other activities that significantly increase the *risk** of landslides are excluded in areas where risk of landslides is high.
2) 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.
3) *Whole tree removal** is only implemented when *best available information** indicates that it will maintain or enhance the *long-term** health of the *soil** and other *forest** resources.
4) Disturbance of topsoil is limited to the minimum necessary to achieve successful regeneration of *species** native to the site.
5) *Rutting** and compaction are minimized.
6) *Soil* erosion** is not accelerated.
7) Broadcast or under burning is only done when consistent with *natural disturbance regimes**, or where risk of wildland fire needs to be mitigated.
8) Natural ground cover disturbance is minimized to the extent necessary to achieve regeneration objectives.

9) Residual trees are not significantly damaged to the extent that health, growth, or values are affected.

10) Damage to *non-timber forest products** is minimized.

**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** will likely need to increase with the amount and frequency of woody material removed from the site (e.g., biomass removals and whole-tree harvests). However, the *long-term** health of the *soil** and other *forest** resources could potentially in limited circumstances (e.g., reducing risk of severe wildfire, maintaining nutrient poor *forest** *ecosystems**) be maintained or enhanced by reduction of woody biomass at the site.

Considerations for decisions include 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 will likely need to 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 will likely not be appropriate on unstable *slopes**.

All *soil**-disturbing activities, including road and trail construction, will likely need to be limited to periods of weather when *soil** compaction, *rutting**, surface *erosion**, or sediment transport into streams and other *water bodies** can be adequately controlled. *Soils** need to 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 6.6.1, Indicator 7.2.14, Indicator 10.5.1, nor Indicator 10.11.3.

**Guidance for the Pacific Coast Region:**

- On *slopes** greater than 30%, ground-based yarding will likely only be appropriate when it is possible to do so without exacerbating *soil** *erosion**.
- On *slopes** greater than 50%, cable or helicopter logging are likely the best options if it is technically feasible and will not result in adverse environmental effects due to the management operation.

**Guidance for the Ozark-Ouachita Region:** For conformance with Indicator 10.11.2, deepening and scouring of existing drainages due to *silvicultural** or logging operations will likely need to be avoided.

PL 10.11.4 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.

**10.12. *The Organization** shall dispose of *waste materials** in an environmentally appropriate manner.**

10.12.1. Collection, clean-up, transportation, and disposal of all *waste materials** is done in an environmentally appropriate way that conserves *environmental values**.

**Guidance:** *Waste materials** include: lubricants, anti-freeze, hydraulic fluids, containers, *pesticides**, paints, batteries, fuels and oils, trash, abandoned equipment, etc.

10.12.2. Equipment (e.g., spill kit) for responding to hazardous spills is available.

10.12.3. 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.

10.12.3.1. There is no evidence of persistent fluid leaks from equipment or of recent groundwater or surface water contamination.

10.12.3.2. 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.

# F ANNEXES

## Annex A Glossary of terms

(Normative section)

The following definitions are normative elements of this standard.

**Achievement date:** The date at which *The Organization** must demonstrate conformance to the permanent *Indicator**, and the validity of the interim indicator expires. For *family forest** *management units**, the *achievement date** for Indicator 6.5.2, Indicator 6.5.7 and FF Indicator 7.2.1 is 5 years after the effective date of this standard. For non-*family forest** *management units**, the *achievement date** for Indicator 6.5.2, Indicator 6.5.7 and Indicator 7.2.4 is 3 years after the effective date of this standard.

**Adaptive management:** A systematic process of continually improving management policies and practices by learning from the outcomes of existing measures. [Source: FSC-STD-01-001 V5-2, based on International Union for Conservation of Nature (IUCN). Glossary definitions as provided on IUCN website]

**Additional:** For the purposes of Criteria 6.9, 6.10 and 6.11:

- Additionality outside the *management unit**: Conservation and/or restoration outcomes over and above those already achieved or planned to be achieved, and that would not have been achieved without the support and/or intervention of the organization.

  Projects must either be new (i.e., not already being implemented or planned), amended or extended so that conservation and/or restoration outcomes are enhanced beyond what would have been achieved, or planned or funded to be achieved without *The Organization** planning to remedy for historical conversion.

- Additionality inside the *management unit**: Conservation and/or restoration outcomes above and beyond those required by the applicable FSC standards.

[Source: FSC-STD-60-004 V2-1]

**Administrative requirements:** Administrative rules, procedures, or regulations that have been promulgated to carry out laws.

**Affected stakeholder:** Any person, group of persons or entity that is or is likely to be subject to the effects of the activities of a *management unit**. 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 *management unit**. The following are examples of *affected stakeholders**:

- *local communities**
- *indigenous peoples**
- *workers**
- *forest** dwellers
- neighbors
- downstream landowners
- local processors
- local businesses
- *tenure** and use *rights holders**, including landowners

- Organizations authorized or known to act on behalf of *affected stakeholders**, for example social and environmental NGOs, labor unions, etc.

[Source: FSC-STD-01-001 V5-3]

**Age class:** Intervals into which the age range of trees is divided; also, the trees falling into such an interval.

**Alien species:** See *non-native species*.*

**Applicable law:** Means applicable to *The Organization** as a legal person or business enterprise in or for the benefit of the *management unit** 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:** *Habitat** for plants and animals that has surface water essential to an *organism's** survival, as differentiated from *wetland** *habitats** characterized by saturated *soils** or *riparian areas**. Examples include streams, ponds, and *vernal ponds**.

**Best available information:** Data, facts, documents, *expert** opinions, *traditional knowledge**, and results of field surveys or consultations with *stakeholders** that are most credible, accurate, complete, and/or pertinent and that can be obtained through *reasonable** effort and cost, subject to the *scale** and *intensity** of the *management activities** and the *precautionary approach**. [Source: Adapted from FSC-STD-60-004 V2-0]

NOTE: Peer-reviewed scientific literature, *traditional knowledge** and *experts** 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 *tribal** government/organization to be the most effective means (technological, economic, and institutional) of preventing or reducing environmental or social impacts, including for water, roads, runoff, etc. *Best management practices** are generally identified by states or *tribal** entities and, in the case of *water quality**, 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 *ecosystems** and the ecological complexes of which they are a part; this includes diversity within *species**, between *species** and of *ecosystems**. [Source: FSC-STD-60-004 V2-0, based on Convention on Biological Diversity (CBD) 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 *riparian management zones**, *conservation** *buffers** around rare bird nests, and *conservation** *buffers** around cultural sites of significance.

**Catastrophic natural disturbances:** The natural events that significantly alter the *forest** at the *landscape** level.

**Certification Body (CB):** FSC-accredited body that performs third-party auditing services.

**Chain of custody (CoC):** The path taken by raw materials, processed materials, finished products, and co-products from the *forest** 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 *pesticides**. [Source: FSC-POL-30-001 V3-0]

**Child labor:** A condition of employment under which

(1) any *worker** 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

(2) any *worker** 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 *child labor** 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 child-labor age. The Secretary of Labor shall provide by regulation or by order that the employment of *worker** between the ages of fourteen and sixteen years in occupations other than manufacturing and mining shall not be deemed to constitute *child labor** 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: Definition of “oppressive child labor” in The Fair Labor Standards Act of 1938, as amended; 29 U.S.C. 201]

NOTE: Usage of the term “employee” in this definition, as included in The Fair Labor Standards Act, has been replaced with the defined term “worker” to more accurately reflect the intent of this Standard.

**Climate change adaptation strategies:** *Climate change adaptation strategies** associated with *ecosystems** and *biodiversity** are generally categorized into three types: resistance, *resilience**, and facilitated transformation. Resistance strategies maintain the current system for as long as possible even as changes occur. *Resilience** strategies help a system cope with a changing climate, 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.

**Collective bargaining:** A voluntary negotiation process between employers or employers’ organization and *workers’ organization**, with a view to the regulation of terms and conditions of employment by means of collective agreements. [Source: FSC-STD-60-004 V2-0, based on International Labour Organization (ILO) Convention 98, Article 4]

**Confidential information:** Private facts, data and content that, if made publicly available, might put at risk *The Organization**, its business interests or its relationships with stakeholders, clients and competitors. [Source: FSC-STD-60-004 V2-0]

NOTE: Public agencies are expected to identify *confidential information** in a manner that aligns with applicable Freedom of Information Act (FOIA) legislation or equivalent applicable regulations.

**Connectivity:** A measure of how connected or spatially continuous a corridor, network, or matrix is. The fewer gaps, the higher the *connectivity**. Related to the structural *connectivity** concept; functional or behavioral *connectivity** refers to how connected an area is for a process, such as an animal moving through different types of *landscape** elements. Aquatic *connectivity** deals with the accessibility and transport of materials and *organisms**, through groundwater and surface water, between different patches of aquatic *ecosystems** of all kinds. [Source: Based on R.T.T. Forman. 1995. *Land Mosaics*. The Ecology of Landscapes and Regions. Cambridge University Press, 632pp]

**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. [Source: FSC-STD-01-001 V5-2]

**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**. [Source: FSC-STD-60-004 V2-0]

**Conservation zones and protection areas:** Defined areas that are designated and managed primarily to safeguard species, habitats, *ecosystems**, natural features or other site-specific values because of their natural environmental or *cultural** values, or for purposes of monitoring, evaluation or research, not necessarily excluding other *management activities**. For the purposes of the Principles and Criteria, these terms are used interchangeably, without implying that one always has a higher degree of *conservation** or *protection** than the other. The term ‘protected area’ is not used for these areas, because this term implies legal or official status, covered by national regulations in many countries. In the context of the Principles and Criteria, management of these areas should involve active *conservation**, not passive *protection***. [Source: FSC-STD-01-001 V5-3]

NOTE: In a United States context, "protection" is often considered to be more restrictive than "conservation.” However, for the purposes of this standard, they are used interchangeably.

**Conversion:** A lasting change of *natural forest** (including *semi-natural forest**) cover or *High Conservation Value Areas**, induced by human activity. This may be characterized by significant loss of *species** diversity, *habitat** diversity, structural complexity, *ecosystem** functionality or livelihoods and *cultural** values. The definition of *conversion** covers gradual *forest** degradation as well as rapid *forest** transformation. [Source: Adapted from FSC-POL-01-007 V1-0]

- Induced by human activity: In contrast to drastic changes caused by natural calamities like hurricanes or volcanic eruptions. It also applies in cases of naturally ignited fires where human activities (e.g. draining of peatlands) have significantly increased the risk of fire.
- Lasting change of *natural forest** (including *semi-natural forest**) cover: Permanent or *long-term** change of *natural forest** (including *semi-natural forest**) cover. Temporary changes of *forest** cover or structure (e.g. harvesting followed by regeneration in accordance with the FSC normative

framework) is not considered *conversion**.

- Lasting change of *High Conservation Value Areas**: Permanent or *long-term** change of any of the *High Conservation Values**. Temporary changes of *High Conservation Value Areas** that do not negatively and permanently impact the values (e.g. harvesting followed by regeneration in accordance with Principle 9) is not considered a lasting change.
- Significant loss of species diversity: Loss of species is considered significant where *rare, threatened and endangered species** or other locally important, keystone and/or flagship species are lost, whether in terms of numbers of individuals or in terms of number of species. This refers to both displacement and extinction.

NOTE: The establishment of ancillary infrastructure necessary to implement the objectives of responsible forest management (e.g. forest roads, skid trails, log landings, fire protection, etc.) is not considered conversion.

NOTE: For the purposes of this definition, gradual *forest** degradation would result in *conversion** when the degradation has occurred to an extent where recovery to *natural forest** (including *semi-natural forest**) conditions and/or *high conservation value areas** is unlikely to be achieved.

**Core area:** The portion of each *Intact Forest Landscape** designated to contain the most important cultural and ecological values. *Core areas** are managed to exclude industrial activity. *Core areas** meet or exceed the definition of *Intact Forest Landscape**. [Source: FSC-STD-60-004 V2-0]

**Criterion (pl. Criteria):** A means of judging whether or not a *Principle** (of *forest** stewardship) has been fulfilled. [Source: FSC-STD-01-001 V5-2]

**Critical:** The concept of criticality or fundamentality in Principal 9 and *HCVs** relates to irreplaceability and to cases where loss or major damage to this *HCV** would cause serious prejudice or suffering to *affected stakeholders**. An *ecosystem** service is considered to be critical (HCV 4) 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 *local communities**, on the environment, on *HCVs**, or on the functioning of significant *infrastructure **(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 *forest** 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]

NOTE: Guidance for *culturally appropriate** communication is provided in Annex F.

**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 *customary rights** may be recognized as customary law. In some jurisdictions, customary law is equivalent to statutory law, within its defined area of competence and may replace the statutory law for defined ethnic or other social groups. In some jurisdictions customary law complements statutory law and is applied in specified circumstances. [Source: Based on N.L. Peluso and

P. Vandergeest. 2001. Genealogies of the political forest and customary rights in Indonesia, Malaysia and Thailand, Journal of Asian Studies 60(3):761–812]

**Customary rights:** Rights which 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. [Source: FSC-STD-01-001 V5-2]

NOTE: As of the effective date of this Standard, no *customary rights** have been established for non-Indigenous *local communities** in the United States, but it is possible that they may be established in the future for long-held practices.

**Degraded forest stand:** Identified when, per Annex I, a *stand**: a) does not provide most of the principal characteristics and key elements of native *forest** *ecosystems** relative to a *natural forest** *stand**; and b) is not a *plantation**.

**Desired future conditions:** A description of the *forest** and/or resource conditions that describes the *long-term** vision of the *management unit**. *Desired future condition** typically includes *forest** attributes such as *forest** structure, *age class** distribution, *species composition**, standing timber quality, *stand** arrangement, products, *habitats** and values, and other resources.

**Directly/Direct Involvement:** For the purposes of Criterion 6.10, situations in which the associated organization or individual is first-hand responsible for the unacceptable activities [Source: FSC-POL-01-004 V2-0].

**Discrimination:** 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 *workers' organization*s* 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]

**Dispute:** An expression of dissatisfaction by any person or organization presented as a complaint to The Organization, relating to its management activities or its conformity with the FSC Principles and Criteria, where a response is expected. [Source: based on FSC-PRO-01-005 V3-0 Processing Appeals]

**Dispute of substantial duration:** *Dispute** 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 *dispute**, based on the 3 month timeline in FSC-STD-20-001). [Source: Adapted from FSC-STD-60-004 V2-0]

**Dispute of substantial magnitude:** *Dispute** that involves one or more of the following:

- Where the negative impact of *management activities** on *local communities'** or *Native American** *Indigenous Peoples'** *rights** is of such a scale that it cannot be reversed or mitigated
- Where the negative impact of *management activities** 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
- Long-term, sustained presence of military bodies;

- Acts of intimidation against *workers** and *affected stakeholders**
- A *dispute** can become of substantial magnitude if it is of *substantial duration**, involves a significant number of interests and/or has a significant negative impact to the *forest** resource/value
- A *dispute** can immediately become a *dispute of substantial magnitude** if it represents a credible, imminent, and irreparable threat to or from any of the above

*Disputes of substantial magnitude** are not common and represent the exception. [Source: Adapted from FSC-STD-60-004 V2-0]

**Documented:** Information is recorded in a physical or electronic format which provides the basis, proof or support for conformance. The information does not have to exist as written words. [Source: Adapted from Merriam-Webster]

**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: FSC-STD-01-001 V5-2, based on the definition provided on the website of the European Environment Agency].

**Economically infeasible:** Economically infeasible means that a reasonably prudent person with forestry or *restoration** expertise would view the project as of such sufficient magnitude of costs or lost profits to render it impractical to proceed with the project.

NOTE: For instance, the fact that adding downed wood to one creek is expensive does not make it *economically infeasible**, while rebuilding a destroyed wetland is likely *economically infeasible** due to the cost of permitting, digging new channels, and monitoring the outcome.

**Ecoregion:** Areas where *ecosystems** (and the type, quality, and quantity of environmental resources) are generally similar. [Source: U.S. Environmental Protection Agency]

**Ecosystem (also Ecological system):** A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. [Source: FSC-STD-01-001 V5-2, based on Convention on Biological Diversity (CBD) 1992, Article 2]

NOTE: 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.

**Ecosystem function:** An intrinsic ecosystem characteristic related to the set of conditions and processes whereby an ecosystem maintains its integrity (such as primary productivity, food chain, biogeochemical cycles). Ecosystem functions include such processes as decomposition, production, nutrient cycling, and fluxes of nutrients and energy. For FSC purposes, this definition includes ecological and evolutionary processes such as gene flow and disturbance regimes, regeneration cycles and ecological seral development (succession) stages. (Source: Based on R. Hassan, R. Scholes and N. Ash. 2005. Ecosystems and Human Well-being: Synthesis. The Millennium Ecosystem Assessment Series. Island Press, Washington DC; and R.F. Noss. 1990. Indicators for monitoring biodiversity: a hierarchical approach. Conservation Biology 4(4):355–364).

**Ecosystem services:** The benefits people obtain from *ecosystems**. These include:

- provisioning services such as food, *forest** products and water;
- regulating services such as regulation of floods, drought, land degradation, air quality, climate and disease;
- supporting services such as *soil** formation and nutrient cycling; and
- cultural services and cultural values such as recreational, spiritual, religious and other non-material benefits.

[Source: FSC-STD-01-001 V5-2, based on R. Hassan, R. Scholes and N. Ash. 2005. Ecosystems and Human Well-being: Synthesis. The Millennium Ecosystem Assessment Series. Island Press, Washington DC]

**Employment and occupation:** Includes access to vocational training, access to employment and to particular occupations, and terms and conditions of employment. [Source: FSC-STD-60-004 V2-0, based on International Labour Organization (ILO) Convention 111, Article1.3]

**Endangered species:** A *species** 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.

NOTE: See also "*Rare, threatened & endangered species**".

**Endemic species:** A *species** that is unique to a particular *water body**, place, or region.

**Engaging/ engagement:** The process by which *The Organization** communicates, consults and/or provides for the participation of interested and/or *affected stakeholders** in a *culturally appropriate** manner, ensuring that their concerns, desires, expectations, needs, *rights** and opportunities are considered in the establishment, implementation and updating of the *management plan** and implementation of associated activities. [Source: Adapted from FSC-STD-01-001 V5-2]

**Environmental harm:** For the purposes of Criterion 6.10, any impact on the environment values as a result of human activity that has the effect of degrading the environment, whether temporarily or permanently [Source: FSC-POL-01-007 V1-0].

**Environmental values:** The following set of elements of the biophysical and human environment:

1. ecosystem functions (including carbon sequestration and storage)
2. biological diversity
3. water resources
4. soils
5. atmosphere
6. landscape values (including cultural and spiritual values).

The actual worth attributed to these elements depends on human and societal perceptions [Source: FSC-STD-01-001 V5-3].

**Erosion:** The displacement of *soil** from one place to another by any means, including water, wind, gravity, logging, and road building.

**Even-aged silviculture:** *Silvicultural** systems in which *stands** 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, 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

*age*/size *class**, or to convert a *stand** containing trees having a variety of ages, sizes, or *species** to a more uniform *stand**. The timing of the *regeneration harvest** is termed the "rotation age" of the timber stand. Even-aged *silvicultural** systems include clearcut, seed-tree, shelterwood, two-age *silviculture**, and variable retention systems. Even-aged *stands** may contain more than one *age*/size *class** of trees on the site at any one time for *silvicultural** 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 *stand** during the establishment of the next crop of trees, but these are taken out during a "removal" harvest to leave one *age*/size *class** for future management.

**Expert:** An expert:

- 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 *traditional knowledge**.

[Source: Based on FSC-GUI-60-009 V1-0]

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**.

**Externalities:** 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]

**Fair compensation:** 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]

**Family forest :** A *management unit** up to 2,470 acres in size, or a *management unit** with low *intensity** harvesting as defined by:

a) the rate of harvesting is less than 20% of the mean annual increment $(MAI)^2$ 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, 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. [Source: FSC-STD-01-003 and FSC-STD-01-003a, criteria for Small and Low Intensity Managed Forest in the United States]

**Federal laws:** 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: Definition of "National laws" in FSC-STD-01-001 V5-2]

**Fertilizer:** Mineral or organic substances, most commonly N, P2O5 and K20, which are applied to soil for the purpose of enhancing plant growth. [Source: FSC-STD-60-004 V2-0]

**Fiber testing:** 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]

**Forced or compulsory labor:** 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. [FSC-STD-60-004 V2-0, based on International Labour Organization (ILO) Convention 29, Article 2.1]

Examples of practices indicative of *forced or compulsory labor**, include:

- 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
- threats of denunciation to the authorities

**Forest:** A tract of land dominated by trees [Source: FSC-STD-01-001 V5-3]

**Fragmentation:** The process of dividing *habitats** into smaller patches, which results in the loss of original *habitat**, loss in *connectivity**, reduction in patch size, and increasing isolation of patches. *Fragmentation** is considered to be one of the single most important factors leading to loss of *native species**, especially in *forested** *landscapes**, and one of the primary causes of the present extinction crisis. In reference to *Intact Forest Landscapes**, the *fragmentation** of concern is understood to be that caused by human industrial activities. [Source: FSC-STD-60-004 V2-0, adapted from Gerald E. Heilman, Jr. James R. Strittholt Nicholas C. Slosser Dominick A. Dellasala, BioScience (2002) 52 (5): 411-422]

**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. [Source: FSC-STD-60-004 V2-0, 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]

**FSC Transaction:** Purchase or sale of products with FSC claims on sales documents (Source: ADV-40-004-14)

**Gap Analysis Project (GAP)/ GAP status:** 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 *protected** areas represented in the database through GAP Status Codes (i.e., GAP status), which are a measure of management intent to conserve *biodiversity**, and are defined as:

- **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 equality:** See *Gender equity*.*

**Gender equity:** *Gender equity* 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:

- recombinant DNA techniques using viral or bacterial vectors
- the direct introduction of DNA into an *organism** (e.g., by microinjection)
- cell fusion or hybridization

NOTE: Clones, hybrids formed by natural pollination processes, or the products of tree selection, grafting, vegetative propagation, or tissue culture are not *GMOs**, unless produced by *GMO** techniques.

**Genotype:** The genetic constitution of an *organism**. [Source: FSC-STD-01-001 V5- 2]

**Good faith:** The principle of *good faith** 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 *disputes**. [Source: Adapted from FSC Policy Motion 40/2017]

**Group Entity:** A person or group of persons (e.g. cooperative, owners association, company) registered as a legal entity and representing the management units and forestry contractors that constitute a group for FSC FM/CoC group certification. The Group Entity applies for or holds group certification through a *Certification Body** and represents the group for the initial FSC certification process and during the period of validity of the certificate. The Group Entity is responsible for the internal organization of the group (the group management system) and conformance with this standard. [Source: FSC-STD-30-005, V2-0]

**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 *forest** management that results in creating a homogenous open condition without *retention**; 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: *Harvest openings** occur within *harvest units**

**Harvest unit:** A spatial unit of *forest** management within the *management unit** that defines a single *silvicultural** prescription.

NOTE: The landing is not a part of the *harvest unit**.

**Hazardous work (in the context of child labor):** 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 *child labor** 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 *child labor** referred to under (Article 3(d) of the Convention No 182, and in identifying where they exist, consideration should be given, inter alia, to:

- 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.

[Source: FSC-STD-60-004 V2-0, based on International Labour Organization (ILO), 2011: IPEC Mainstreaming Child labour concerns in education sector plans and Programmes, Geneva, 2011& ILO Handbook on Hazardous child labour, 2011]

**High Conservation Value (HCV):** Any of the following 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**, 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 example for livelihoods, health, nutrition, water), 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**.

[Source: Based on FSC-STD-01-001 V5-2]

**High Conservation Value Areas (HCVA):** Zones and physical spaces which possess and/or are needed for the existence and maintenance of identified *High Conservation Values**. [Source: FSC-STD-60-004 V2-0]

**Historic conditions:** Ecological conditions and processes existing prior to substantial modern human disturbance of the site, based on *best available information**.

**High-grading (high grade logging):** 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 *forest**. 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]

**ILO Core (Fundamental) Conventions:** These are labor standards that cover fundamental principles and rights at work: freedom of association and the effective recognition of the right to *collective bargaining**; the elimination of all forms of forced or compulsory labor; the effective abolition of *child labor**; and the elimination of discrimination in respect of employment and occupation. The eight Fundamental Conventions are:

- 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);
- Worst Forms of Child Labour Convention, 1999 (No. 182);
- Equal Remuneration Convention, 1951 (No. 100);
- Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

[Source: FSC-STD-60-004 V2-0, based on FSC report on generic criteria and indicators based on International Labour Organization (ILO) Core Conventions principles, 2017]

**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):** 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 *good faith** and in accordance with the Constitution, the principles concerning the fundamental rights which are the subject of those Conventions, namely:

- Freedom of association and the effective recognition of the right to *collective bargaining**;
- The elimination of all forms of *forced or compulsory labor**;
- The effective abolition of *child labor**; and
- The elimination of discrimination in respect of employment and occupation.

[Source: FSC-STD-60-004 V2-0, based on FSC report on generic criteria and indicators based on International Labour Organization (ILO) Core Conventions principles, 2017]

**Indicator:** A quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a *management unit** complies with the requirements of an FSC *Criterion**. *Indicators** and the associated thresholds thereby define the requirements for responsible *forest**

management at the level of the *management unit** and are the primary basis of *forest** evaluation. [Source: FSC-STD-60-004 V2-0]

**Indigenous Peoples:** People and groups of people that can be identified or characterized as follows:

- The key characteristic or criterion is self-identification as *Indigenous Peoples** 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: FSC-STD-01-001 V5-2, 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]

**Indirectly/Indirect Involvement:** For the purposes of Criterion 6.10, situations in which the associated organization or individual, with a minimum ownership or voting power of 51%, is involved as a parent or sister company, subsidiary, shareholder or Board of Directors to an organization directly involved in unacceptable activities. Indirect involvement also includes activities performed by subcontractors when acting on behalf of the associated organization or individual [Source: FSC-POL-01-004 V2-0].

**Industrial activity:** Industrial *forest** and resource *management activities** such as road building, mining, dams, urban development and timber harvesting. [Source: FSC-STD-60-004 V2-0]

**Infrastructure:** In the context of *forest** management, roads, bridges, culverts, log landings, quarries, impoundments, buildings and other structures required in the course of implementing the *management plan**. [Source: FSC-STD-60-004 V2-0]

**Intact Forest Landscape:** A territory within today's global extent of *forest** cover which contains *forest** and non-*forest** *ecosystems** minimally influenced by human economic activity, with an area of at least 500 km2 (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: FSC-STD-60-004 V2-0, based on 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 *pesticides** and other interventions to levels that are economically justified and reduce or minimize risks to human and animal health and/or the environment. *IPM** emphasizes the growth of a healthy *forest** with the least possible disruption to *ecosystems** 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: FSC-STD-01-001 V5-2, based on the Convention on Biological Diversity (CBD), 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 *management activity** 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 *management unit**. The following are examples of *interested stakeholders**.

- *Conservation** organizations, for example environmental NGOs;
- Labor (rights) organizations, for example labor unions;
- 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 *High Conservation Values**.

[Source: FSC-STD-01-001 V5-2]

**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 *species** capable of rapid reproduction and spatial expansion, which may displace more specialized *native species** and/or is difficult to eradicate. *Invasive species** can alter ecological relationships among *native species** and can affect *ecosystem** function and human health. *Invasive species** are of particular ecological concern if they are not native to the area in question.

**Lands and territories:** For the purposes of the *Principles** and *Criteria** these are lands or territories that *Indigenous Peoples** or *local communities** 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: FSC-STD-60-004 V2-0, based on World Bank safeguard OP 4.10 *Indigenous Peoples**, section 16 (a). July 2005.]

NOTE: In the context of *Native American** *Indigenous Peoples**, this term includes ancestral territory and *tribal** territory, and is, therefore, not limited to the lands reserved for the settlement of *Native American** *Indigenous Peoples** and/or other currently recognized *tribal** lands.

**Landscape:** A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area. [Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website]

NOTE: Ecological Sections (i.e., the so named scale within the hierarchy of the US Forest Service's ecological classification system; Cleland 2007, update of Bailey/USFS) or smaller units are recommended for use to define *landscape** for purposes of *representative sample area** establishment and assessment. For many other purposes, "landscapes" will often occur at smaller scales than Ecological Sections.

NOTE: In developing the description of "landscape" *The Organization** should consider the *management unit's** ability to influence and impact the surrounding area, as well as the potential for other owners to influence and impact the area that the *management unit** falls within.

NOTE: Some larger *management units** may represent the full *landscape** that needs to be considered, while other typically smaller *management units** may occur within a broader *landscape** that should be considered.

**Landscape values:** *Landscape values** can be visualized as layers of human perceptions overlaid on the physical *landscape**. Some *landscape values**, like economic, recreation, subsistence value, or visual quality are closely related to physical *landscape** attributes. Other *landscape values** such as intrinsic or spiritual value are more symbolic in character and are influenced more by individual perception or social construction than physical *landscape** attributes. [Source: FSC-STD-60-004 V2-0, based on website of the Landscape Value Institute]

NOTE: For the purposes of Criterion 6.8 and Criterion 10.10, these values are focused on how the mosaic of *ecosystems**, age structure, *species** composition, *species** distribution, *fragmentation**, and other ecological conditions occur across the *landscape**.

**Large:** When used in reference to an ownership or *management unit**, 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 ecologically mature or remnant of old growth, that provide 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:** In accordance with primary legislation (*federal 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. [Source: FSC-STD-01-001 V5-2]

NOTE: In the United States, treaties and reserved treaty rights are legally binding.

**Legal registration:** Federal or *local** *legal** license or set of permissions to operate as an enterprise, with *rights** 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 *rights** to buy and sell products and/or services do not carry the obligation to do so, so legal* registration applies also to *Organizations** operating a *management unit** without sales of products or services; for example, for unpriced recreation or for *conservation** of *biodiversity** or *habitat**. [Source: Adapted from FSC-STD-01-001 V5-2]

**Legal status:** The way in which the *management unit** 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 *management unit** 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, *legal status** 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]

**Legally competent:** Mandated in law to perform a certain function. [Source: FSC-STD-01-001 V5-2]

**Light work:** *Federal laws** or regulations may permit the employment or work of persons 13 to 15 years of age on *light work** 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: Based on International Labour Organization (ILO) Convention138, Article7]

**Living wage:** 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. [Source: Adapted from "A Shared Approach to a Living Wage," ISEAL Living Wage Group, November 2013]

**Local:** In or within *reasonable** proximity to the *management unit** to have a significant impact on the economy or the *environmental values** of the *management unit**, or to be 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 (county, city, state, or nation).

**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 (county, city, state, or nation). [Source: adapted from FSC-STD-01-001 V5-2]

NOTE: The community is the collective of individuals, not the individuals within that collective.

**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. *Tribal** 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 *forest** owner or manager as manifested by the objectives of the *management plan**, the rate of harvesting, and the commitment to maintain permanent *forest** 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 *ecosystem** 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 managing a *forest**, including but not limited to: planning, consultation, harvesting, access construction and maintenance, *silvicultural** activities (planting, site preparation, tending), monitoring, assessment, and reporting. [Source: FSC Canada National Boreal Standard 2004]

**Managerial control:** Responsibility of the kind defined for corporate directors of commercial enterprises in national commercial law, and treated by FSC as applicable also to public sector organizations. [Source: FSC 2011]

**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 *Organization** within or in relation to the *management unit**, including statements of objectives and policies. [Source: FSC-STD-01-001 V5-2]

**Management strategy:** A plan of action for how a *management objective** 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 *long-term** *management objectives** which are expressed in a *management plan**. This area or areas include(s):

- all facilities and area(s) within or adjacent to this spatial area or areas under *legal** title or management control of, or operated by or on behalf of *The Organization**, for the purpose of contributing to the *management objectives**; and
- all facilities and area(s) outside, and not adjacent to this spatial area or areas and operated by or on behalf of *The Organization**, solely for the purpose of contributing to the *management objectives**.

[Source: FSC-STD-01-001 V5-2]

**Means of verification:** A potential source of information that allows an auditor to evaluate conformance with an *Indicator**. Means of verification are not normative and the *certification body** may justifiably use alternatives to those listed.

**Minimum age (of employment):** 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. *federal laws** may also permit the employment of 13-15-year-olds in *light work** which is neither prejudicial to school attendance, nor harmful to a child's health or development. The ages 12-13 can apply for *light work** in countries that specify a minimum age of 14. [Source: ILO Convention 138, Article 2]

**Medium:** When used in reference to an ownership or *management unit**, it is an area between 2,475 and 50,000 acres in size.

**National laws:** See *Federal laws**.

**Nationally-ratified:** Ratified by the Congress of the United States

**Native American:** Of or relating to the *Indigenous Peoples** of the conterminous United States (not including Alaska, Hawaii, or any US territories).

**Native Ecosystem:** A natural community of plants, animals, and microorganisms that have developed together in a specific area over a long period of time. [Source: Wilson, Mark V., David E. Hibbs & Edward R. Alverson, 1991, Native plants, native ecosystems and native landscapes: an ecological definition of "native" will promote effective conservation and restoration, Kalmiopsis: Journal of the Native Plant Society of Oregon]

**Native species:** *Species**, 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: FSC-STD-01-001 V5-2, based on Convention on Biological Diversity (CBD). Invasive Alien Species Programme. Glossary of Terms as provided on CBD website)]

**Natural conditions:** For the purposes of the *Principles** and *Criteria** and any applications of restoration techniques, the term “more natural conditions” provides for managing sites to favor or *restore** *native species** and associations of *native species** that are typical of the locality, and for managing these associations and other *environmental values** so that they form *ecosystems** typical of the locality. [Source: Adapted from FSC-STD-01-001 V5-2]

**Natural disturbance regime:** Disturbance processes such as wind, fire, insects, and pathogens that are characteristic of the *forest** *ecosystem**, 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:** A *forest** area with many of the principal characteristics and key elements of *native ecosystems**, such as complexity, structure and *biological diversity**, including *soil** characteristics, flora and fauna, in which all or almost all the trees are *native species**, not classified as *plantations**.

‘Natural forest’ includes the following categories:

- *Forest** affected by harvesting or other disturbances, in which trees are being or have been regenerated by a combination of natural and artificial regeneration with species typical of natural forests in that site, and where many of the above-ground and below-ground characteristics of the natural forest are still present. In boreal and north temperate forests which are naturally composed of only one or few tree species, a combination of natural and artificial regeneration to regenerate forest of the same *native species**, with most of the principal characteristics and key elements of *native ecosystems** of that site, is not by itself considered as *conversion** to *plantations**;
- Natural forests which are maintained by traditional *silvicultural** practices including natural or assisted natural regeneration;
- Well-developed secondary or colonizing *forest** of *native species** which has naturally regenerated in non-*forest** areas;
- The definition of ‘natural forest’ may include areas described as wooded *ecosystems**, *woodland** and savannah.
- *Semi-natural forests** are a sub-set of *natural forests**.

‘Natural forest’ (including *semi-natural forest**) does not include land which is not dominated by trees, was previously not *forest**, and/or which does not yet contain many of the characteristics and elements of *native ecosystems**. Young regeneration may be considered as *natural forest** after some years of ecological progression. [Source: Adapted from FSC-STD-01-001 V5-2]

NOTE: FSC has not developed globally-applicable quantitative thresholds between different categories of forests in terms of area, density, height, etc. FSC Forest Stewardship Standards may provide such thresholds and other guidelines, with appropriate descriptions or examples. This Standard provides thresholds and guidance in Annex I for when *stands** should be considered *natural forest** (based on the principle characteristics and key elements of *native ecosystems** that are present in the *stands**).

**Natural hazards:** Disturbances that can present risks to social and *environmental values** in the *management unit** but that may also comprise important *ecosystem** functions; examples include drought, flood, fire, landslide, storm, avalanche, etc. [Source: FSC-STD-60-004 V2-0]

**Non-native species :** A *species**, subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such *species** that might survive and subsequently reproduce. [Source: Convention on Biological Diversity (CBD), Invasive *Alien Species** 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 *management unit**, 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 *The Organization** for the *forest** enterprise, including the decision of policy and the choice of means for attaining the purpose. [Source: FSC-STD-60-004 V2-0, based on F.C. Osmaston. 1968. The Management of Forests. Hafner, New York; and D.R. Johnston, A.J. Grayson and R.T. Bradley. 1967. Forest Planning. Faber & Faber, London]

**Obligatory code of practice:** A manual or handbook or other source of technical instruction which *The Organization** must implement by law. [Source: FSC-STD-01- 001 V5-2]

**Occupational accident:** An occurrence arising out of, or in the course of, work that results in fatal or non-fatal injury (Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website).

**Occupational disease:** Any disease contracted as a result of an exposure to risk factors arising from work activity. [Source: FSC-STD-01-001 V5-2, based on 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: FSC-STD-01-001 V5-2, based on 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 *plant community** is capable of existing on a site, given the frequency of natural disturbance events, which may include very old examples of long-lived early- or mid-seral *species**. The onset of *old growth** varies by *forest** community and region. Depending on the frequency and intensity of disturbances, and site conditions, *old growth** forests will have different structures, *species** compositions, age distributions, and functional capacities than younger forests. *Old growth** *stands** and *forests** include:

> **Type 1 Old Growth:** 3 acres or more that have never been harvested and that display *old growth** characteristics.
>
> **Type 2 Old Growth:** 20 acres or more that have been harvested, but that have retained (through any harvesting activities) significant *old growth** structure and functions.

**Organism**: Any biological entity capable of replication or of transferring genetic material (Source: Council Directive 90/220/EEC).

**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.

**Persistent complaint:** A complaint: a) that has already been resolved and closed; or b) that has been submitted to any other entity handling complaints in the FSC system and are still under investigation; or c) that is similar to a previously submitted complaint, with no or minor additions/variations and the complainant insists be treated as a new complaint. [Source: INT-STD-60-004_04]

**Pesticide:** Any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth. [Source: Based on FAO International Code of Conduct on Pesticide Management] This definition includes insecticides, rodenticides, acaricides, molluscicides, larvaecides, nematicides, fungicides, and herbicides.

**Planning unit:** The specific geographic area for which a *sustained yield harvest level** is being calculated. Planning units should generally be composed of land that contains similar or commonly associated *forest** types. Depending upon the *scale** of the *management unit**, planning units may range in size from a single *stand** (for example, *small**, private landowners) to entire watersheds. A planning unit may include the entire *management unit**.

**Plant community (plant community type):** See *ecological community**.

**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, such as *restoration** following *catastrophic natural disturbances** or strategies for *conservation** of *high conservation values**,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**.

[Source: Adapted from FSC-STD-01-001 V5-2]

NOTE: Very short rotation crops such as Christmas trees are typically not eligible for certification. See advice note ADVICE-20-007-01, found in FSC-DIR-20-007, for further clarification.

NOTE: Guidance, including details addressing ecological conditions used in *stand**-level classification, for differentiating between *natural forest** (including *semi-natural forest**) and *plantation** is provided in Annex I.

**Pre-harvest:** The diversity, composition, and structure of the *forest** or *plantation** prior to felling timber and appurtenant activities such as road building. [Source: FSC-STD-60-004 V2-0]

**Precautionary approach:** An approach requiring that 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** takes explicit and effective measures to prevent the damage and avoid the *risks** 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:** *Forest** *ecosystems** that have retained the principal characteristics and key elements of *native ecosystems**, such as complexity, structure, and diversity, and have remained relatively undisturbed by human activity (i.e., lack visible indications of site disturbing *management activities**). Human impacts in such *forest** areas have normally been limited to low levels of hunting, fishing, and very limited, non-commercial harvesting of *forest** products.

NOTE: 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**.

**Principle:** An essential rule or element; in FSC's case, of *forest** stewardship. [Source: FSC-STD-01-001 V5-2]

**Proportionate:** For the purposes of Criterion 6.10, a 1:1 ratio: The area to be restored or conserved is the same as the area of *natural forest** (including *semi-natural forest**) and/or High Conservation Value destroyed. [Source: Adapted from FSC-POL- 01-007 V1-0]

**Protection:** See *Conservation*.*

**Protection area:** See *Conservation zones and protection areas**.

**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", *tribal** lands are excluded from this definition, even though the US federal government has a trust responsibility to *tribal** governments/organizations for the management of *tribal** lands. Public university lands are also excluded from this definition.

**Publicly available:** In a manner accessible to or observable by people generally (including by request). [Source: Adapted from Collins English Dictionary, 2003 Edition] Being "available" to people includes being easily understood or appreciated.

**Rare ecological community (including plant community):** Those *ecological communities** that have been identified by state or federal agencies or natural heritage databases to be rare, consistent with the parameters for determining *rare, threatened, and endangered species**.

**Rare species:** See *rare, threatened, and endangered species**

**Rare, threatened, and endangered species (RTE species):** *Species** (including plants, animals, and other *organisms**) that are federally-listed (i.e., by the US Fish and Wildlife Service or National Marine Fisheries Service), state-listed (i.e., by state natural heritage or other state agencies) as threatened, endangered, or sensitive, or included in Appendix 1 of the Convention on International Trade in Endangered Species (CITES); and species that are listed by the Natural Heritage Database or NatureServe as critically imperilled, 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, and those that are sensitive and vulnerable to impact from the types of *management activities** that will occur on the *management unit**, will also be considered rare. In states where *species** conservation status information is incomplete, the *best available information** for S1–S3 and G3 *species** occurrences, at the finest resolution of classification commonly available in that state, is used.

NOTE: NatureServe Explorer (https://explorer.natureserve.org) provides the most comprehensive list of *rare, threatened, and endangered species**, including federal endangered species listing status.

**Ratified:** The process by which an international law, convention or agreement (including multilateral environmental agreement) is *legally** approved by a national legislature or equivalent legal mechanism, such that the international law, convention, or agreement becomes automatically part of *federal law** or sets in motion the development of *federal law** to give the same *legal** 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: FSC-STD-60-004 V2-0, based on Shorter Oxford English Dictionary]

**Refugia:** An isolated area where extensive changes, typically due to changing climate or by disturbances such as those caused by humans, have not occurred and where plants and animals typical of a region may survive. In the US context, refugia also includes disturbed areas in which a population can persist and from which it can disperse when the surrounding *habitat** becomes suitable for it to live in. [Source: Adapted from Glen Canyon Dam, Adaptive Management Program Glossary as provided on website of Glen Canyon Dam website]

**Regeneration harvest:** Any removal of trees intended to assist regeneration already present or to make regeneration possible.

**Remedy:** For the purposes of Criterion 6.10, to correct or return something as near as possible to its original state or condition (Source: Guiding Principles on Business and Human Rights. UN. 2011).

- For environmental harms this includes actions taken to remedy deforestation, conversion degradation, or other harms to *natural forest** (including *semi-natural forest**) and High Conservation Value areas. Environmental remedy actions may include but are not limited to: conservation of standing forests, habitats, ecosystems and species; restoration and protection of degraded ecosystems.
- For social harms this includes providing redress for identified social harms through agreements made during an FPIC-based process with *Indigenous Peoples** and/or *Traditional Peoples** for *legal** rights or *customary rights** that are affected, and facilitating a transition to the position before such harms occurred; or developing alternative measures to ameliorate harms by providing gains recognized by the affected stakeholders as equivalent to the harms, through consultation and agreement. Remedy may be achieved through a combination of apologies, restitution, rehabilitation, financial or non-financial compensation, satisfaction, punitive sanctions, injunctions, and guarantees of non-repetition.

[Source: Adapted from FSC-POL-01-007 V1-0]

**Remuneration:** includes the ordinary, basic or minimum wage or salary and any additional emoluments whatsoever payable directly or indirectly, whether in cash or in kind, by the employer to the worker and arising out of the workers* employment (ILO Convention 100, Article1a).

**Representative Sample Areas (RSAs):** Portions of the *management unit** delineated for the purpose of *conserving** or *restoring** *viable** examples of an *ecosystem** that would naturally occur in that ecological region. *RSA** may additionally:

a. serve to *conserve** or *restore** an under-represented ecological condition (i.e., *forest** *successional** phases, ecological communities); and/or
b. serve as a set of *conservation zones*/protection areas** or *refugia** for *species**, communities, and/or community types not addressed in other *Criteria** of this Standard.

[Source: Adapted from FSC-STD-60-004 V2-0]

**Resilience:** 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. *Resilience** can be applied to both *ecological systems** and social systems. [Source: FSC-STD-60-004 V2-0, based on International Union for Conservation of Nature (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]

**Restitution:** For the purposes of Criterion 6.10, measures agreed with affected stakeholders to restore lands, properties or damaged natural resources to their original owners in their original condition. Where such lands, properties or natural resources cannot be returned or restored, measures are agreed on to provide alternatives of equivalent quality and extent. Restitution to *Indigenous Peoples** and/or *Traditional Peoples** for *legal** rights or *customary rights** that are affected is agreed on through an FPIC-based process [Source: Adapted from FSC-POL-01-007 V1-0].

**Restore (Restoration):** The process of assisting the recovery of an *ecosystem**, and its associated conservation values, that have been degraded, damaged, or destroyed, through implementation of *management activities** that introduce or reintroduce composition, structures and functions that are native to the site (Source: adapted from 'International principles and standards for the practice of ecological restoration'. Gann et al 2019. Second edition. Society for Ecological Restoration) (shortened version – refer to the FSC Remedy Framework for full definition).

NOTE: *The Organization** is not necessarily obliged to 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. FSC-POL-20-003 The Excision of Areas from the Scope of Certification describes the processes by which such areas may be excised from the area certified, when appropriate.

*The Organization** is also not obliged to restore *environmental values** that may have existed at some time in the historic or pre-historic past, or that have been negatively affected by previous owners or organizations – with the exception of those values negatively affected through instances of *conversion** and whose *restoration** form part of a Remedy Plan which *The Organization** is required to follow. In all instances, however, *The Organization** is expected to take reasonable measures to mitigate, control and prevent environmental degradation which is continuing in the *management unit** as a result of such previous impacts.

**Restoration harvest:** A harvest that is intended to move a *forest** closer to fully representing the principal characteristics and key elements of a particular native *forest* ecosystem**.

**Retention:** Living vegetation, including trees, shrubs, and herbaceous *species**, that is retained during even-aged and two-aged *regeneration harvests**.

**Rights:** In the context of access rights and *use rights**, "rights" is used to reference *legal** rights and *customary rights** held by *Native American** *Indigenous Peoples**, *traditional peoples**, and *local communities** and *legal** rights held by all other *rights holders**.

**Rights holder:** Persons and groups with *legal** rights or, in the case of *Native American** *Indigenous Peoples**, *traditional peoples**, and *local communities**, with *legal** or *customary rights**, to land and/or resources within the *management unit**. For *rights** held by *Native American* Indigenous Peoples** and *traditional peoples**, *free, prior, and informed consent** is required to determine management decisions. [Source: Adapted from FSC-STD-60-004 V2-0]

**Riparian area:** Interface between upland communities and a *water body** often delineated and managed to conserve the plant and wildlife *habitat** characteristics of the area and to *protect** adjacent aquatic *habitats** and *ecosystems**. *Riparian areas** vary in width according to biotic and abiotic characteristics

and may be wider than a *riparian management zone** (RMZ), which is designed to *protect** *water quality** and *aquatic habitat**.

**Riparian management zone (RMZ):** Areas next to rivers, streams, *wetlands**, *vernal pools**, seeps and springs, lake and pond shorelines, karst, and other hydrologically sensitive areas where management practices are modified to *protect** *water quality** and *aquatic habitats** by minimizing non-point source pollution to surface waters. In addition to their primary purpose of *protecting** *water quality**, these areas also provide similar ecological functions to *riparian areas**.

**Riparian zone:** See *riparian area**.

**Risk:** The probability of an unacceptable negative impact arising from any activity in the *management unit** 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.

**Salvage harvest:** The removal of dead trees or trees damaged or dying because of injurious agents other than competition, to recover economic value that would otherwise be lost. [Source: The Dictionary of Forestry, SAF 2018]

**Scale:** A measure of the extent to which a *management activity** or event affects an *environmental value** or a *management unit**, in time or space. An activity with a small or low spatial *scale** affects only a small proportion of the *forest** each year, an activity with a small or low temporal *scale** occurs only at long intervals. [Source: FSC-STD- 01-001 V5-2]

**Scale, intensity, and risk:** See individual definitions for *scale**, *intensity**, and *risk**.

**Semi-natural forest:** As a sub-set of *natural forests*, semi-natural forests** are *a forest* ecosystem** with many of the characteristics of *native ecosystems** present. However, *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**.

**Significant:** For the purposes of Sub-indicator 6.8.2.4, "significant" is defined as, "A large enough proportion of the *management unit** to have the potential to help support old growth-dependent *species** that are likely to be present within the *landscape** in which the *management unit** occurs."

**Significant:** For the purposes of Principle 9, HCVs 1, 2 and 6 there are three main forms of recognizing *significance**.

- A designation, classification or recognized *conservation** status, assigned by an international agency such as IUCN or Birdlife International;
- A designation by national or regional authorities, or by a responsible national *conservation** organization, on the basis of its concentration of *biodiversity**;
- A voluntary recognition by the manager, owner or *Organization**, on the basis of available information, or of the known or suspected presence of a *significant** *biodiversity** concentration, even when not officially designated by other agencies.

Any one of these forms will justify designation as HCVs 1, 2 and 6. Many regions of the world have received recognition for their *biodiversity** importance, measured in many different ways. Existing maps and classifications of priority areas for *biodiversity** *conservation** play an essential role in identifying the potential presence of HCVs 1, 2 and 6. [Source: FSC-STD-01-001 V5-2]

**Silviculture (Silvicultural):** The art and science of controlling the establishment, growth, composition, health and quality of *forests** and *woodlands** to meet the targeted diverse needs and values of landowners and society on a sustainable basis. [Source: FSC-STD-01-001 V5-2, based on 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 *management unit**, see *Family forest**.

**Small-scale smallholder:** Any person that is depending on the land for most of their livelihood; and/or employs labour mostly from family or neighbouring communities and has land-use rights on a Management Unit of less than 50 hectares. Standard developers may define this to less than 50 hectares. [Source: FSC-POL-01-007 V1-0]

**Snag:** A standing dead tree.

**Social Harms:** For the purposes of Criterion 6.10, negative impacts on persons or communities, perpetrated by individuals, corporations or states, which include, but may go beyond, criminal acts by legal persons. Such harms include negative impacts on persons' or groups' rights, livelihoods and well-being, such as property (including forests, lands, waters), health, food security, healthy environment, cultural repertoire and happiness, as well as physical injury, detention, dispossession and expulsion.

- Ongoing social harms: social harms which have not been remedied.
- Priority social harms: social harms prioritized by an FPIC-based process with *Indigenous Peoples** and/or *Traditional Peoples** for *legal** rights or *customary rights** that are affected or identified in consultation with affected stakeholders

[Source: Adapted from FSC-PRO-01-007 V1-0. Shortened version - refer to the FSC Remedy Framework for full definition]

**Soil:** Earth material (rock) so modified by physical, chemical, and biological agents that it will support rooted plants. *Soil** also includes organic material, biotic communities, and *species** 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 *species** that occur on a site or within an *ecosystem** at any point in time.

**Stakeholder:** See *affected stakeholder** and *interested stakeholder**.

**Stand:** *Plant communities**, particularly of trees, sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguished from adjacent communities; also, may delineate a *silvicultural** or management entity.

**Statutory law or statute law:** The body of law contained in Acts of Parliament (national legislature)

**Streamside management zone (SMZs):** See *riparian management zone**.

**Structural diversity:** The diversity in a *plant community** 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 *species** composition and *forest** 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 *desired future conditions**, and that do not diminish the *long-term** ecological integrity and productivity of the site.

**Tenure:** Socially defined agreements held by individuals or groups, recognized by *legal** statutes or customary practice, regarding the 'bundle of *rights** and duties' of ownership, holding, access and/or usage of a particular land unit or the associated resources there within (such as individual trees, plant *species**, water, minerals, etc.). [Source: Adapted from International World Conservation Union (IUCN). Glossary definitions provided on IUCN website]

**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]

**Threat:** An indication or warning of impending or likely damage or negative impacts. [Source: FSC-STD-60-004 V2-0, based on Oxford English Dictionary]

**Threatened species:** Any *species** 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.

NOTE: See also "*Rare, threatened, and endangered species**".

**Timber harvesting level:** The actual harvest quantity executed on the *management unit**, 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) *sustained yield harvest level**. [Source: Adapted from FSC-STD-60-004 V2-0]

**Timely manner:** As promptly as circumstances reasonably allow; not intentionally postponed by *The Organization**; in compliance with applicable laws, contracts, licenses or invoices.

**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: FSC-STD-60-004 V2-0, 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 *rights** to their lands, *forests** and other resources based on long established custom or traditional occupation and use. [Source: FSC-STD-60-004 V2-0, Forest Peoples Programme (Marcus Colchester, 7 October 2009)]

**Transaction verification:** Verification by *certification bodies** 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 *Native American** *Indigenous Peoples** of a particular land base.

**Type 1 old growth:** See *old growth*.*

**Type 2 old growth:** See *old growth**.

**Uphold:** To acknowledge, respect, sustain and support. [Source: FSC-STD-01-001 V5-2]

**Use rights:** *Rights** for the use of resources of the *management unit** 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 *Intact Forest Landscapes** within the *management unit** as of January 1, 2017. The *vast majority** also meets or exceeds the minimum definition of *Intact Forest Landscape**. [Source: FSC-STD-60-004 V2-0]

**Verifiable targets:** Specific goals, such as desired future forest conditions, established to measure progress towards the achievement of each of the *management objectives**. 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 *water bodies**. *Vernal pool** types, *species**, and identification will vary by region. *Vernal pools** that occur in eastern and midwestern *forests** are characterized by a unique suite of amphibian and invertebrate *species**. 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 *species** not found in other *wetland** types.

**Very limited portion:** The affected area shall not exceed 5% of the Management Unit, irrespective of whether the conversion activities have taken place prior to or after The Organization is awarded with FSC Forest Management certification. [Source: FSC-STD-01-002]

**Very limited portion of the core area:** The area affected shall not exceed 0.5% of the area of the *core area** in any one year, nor affect a total of more than 5% of the area of the *core area*.* [Source: FSC-STD-60-004 V2-0]

**Vexatious complaint:** A complaint: a) without reasonable or probable cause; or b) without good grounds or merit; or c) meant to cause trouble and harm, namely malicious; or d) meant to harass (e.g., use of insulting and threatening language). [Source: INT-STD-60-004_04]

**Viable:** In the context of *Representative Sample Areas**, 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:

- 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 (including water courses):** Seasonal, temporary, and permanent brooks, creeks, streams, rivers, ponds, and lakes. *Water bodies** include riparian or *wetland** systems, lakes, swamps, fens, bogs, seeps, springs, vernal pools, sinkholes, karst systems, and headwaters. [Source: Adapted from 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 *soil** conditions. *Wetlands** 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:** The practice of harvesting the entire above-ground portion of a tree and removing it from the site (i.e., materials either left on the landing or transported off-site). [Source: Adapted from ForestSociety.org]

**Woodlands:** As a sub-set of *natural forests*, woodlands** are *a forest* ecosystem** with many of the characteristics of *native ecosystems** present. *Woodlands** generally occur in less productive growing conditions. The *species** that comprise *woodlands** differ in characteristics from most trees. On average, *woodland* species** tend to be slower growing, smaller in stature, and of a form with more forks and branches near the base of the tree. *Woodland* species** often grow as clumps of stems rather than one central stem. [Source: Based on descriptions of woodlands from the U.S. Forest Service]

**Woody debris:** All woody material, from whatever source, that is dead and lying on the *forest** floor, where it provides important microhabitats and performs various functions of nutrient cycling. *Woody debris** 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. This includes part-time and seasonal employees, of all ranks and categories, including laborers, administrators,

supervisors, executives, contractor employees as well as self-employed contractors and sub-contractors. [Source: *FSC-STD-01-001 V5-3.* ILO Convention 155, Occupational Safety and Health Convention, 1981]

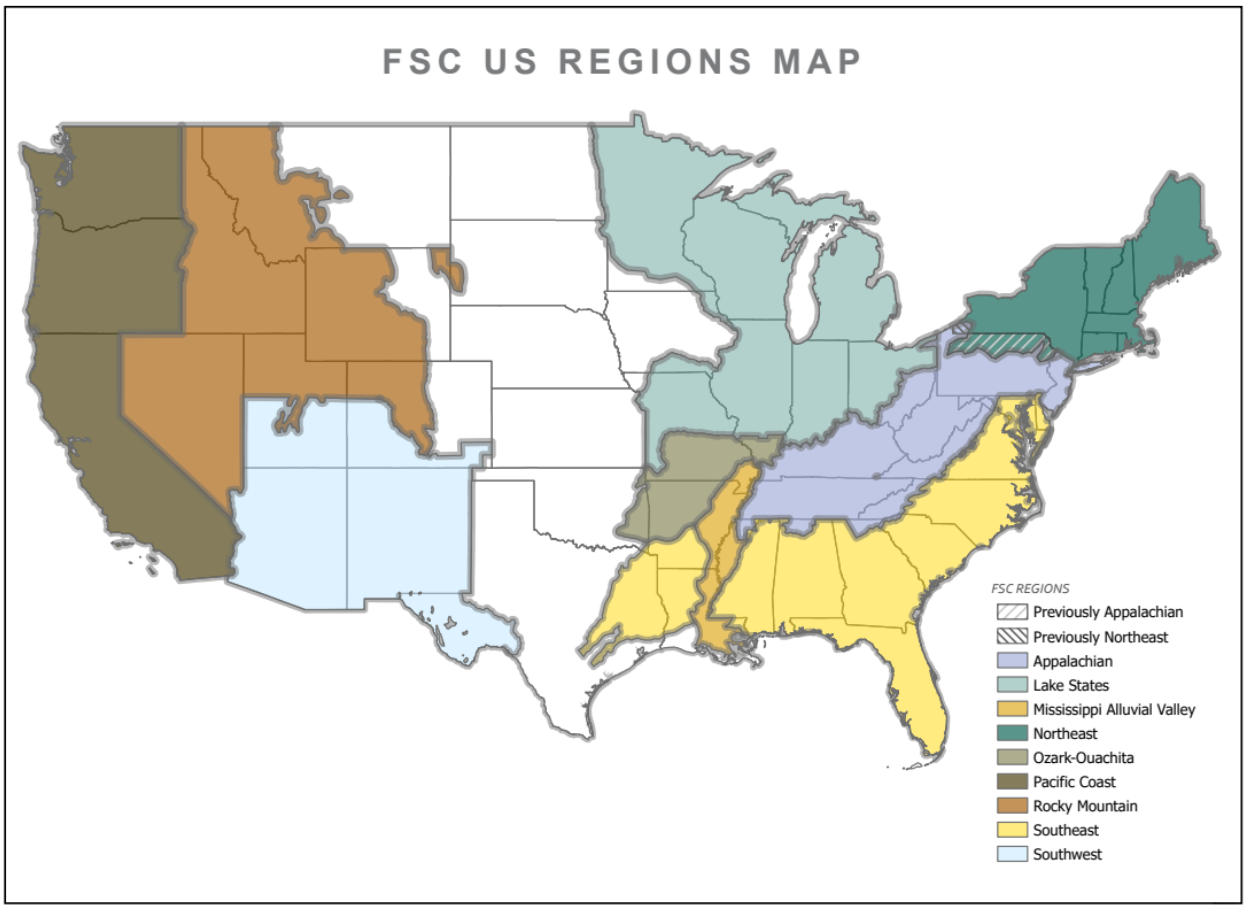
**Workers' organization:** Any organization of *workers** for furthering and defending the interest of *workers** (adapted from ILO Convention 87, Article 10). It is important to note that rules and guidance on composition of *workers' organization** vary from country to country, especially in relation to those who are considered as rank and file members, as well those who are deemed to have power to "hire and fire". *Workers' organizations** tend to separate association between those who can "hire and fire" and those who cannot. [Source: FSC-STD-60-004 V2-0, based on report on generic criteria and indicators based on International Labour Organization (ILO) Core Conventions principles, 2017]

## Annex B FSC US Regions

(Guiding section)

The following guidance is intended to help *The Organization** determine which FSC US Region is applicable to their *management unit**, but is not normative. *The Organization** is expected to finalize this determination with their *Certification Body**.

The FSC US 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**

As indicated in Section B.3 of this standard's introduction, 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 need to 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 (Missouri, 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 American** *Indigenous Peoples** through the use 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 *forest** 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** *Indigenous People** 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 *forest** 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 *forest** 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 defines 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 Forest 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 A*pplicable laws**, regulations and nationally ratified agreements

(Normative section)

Annex C is not a comprehensive list of all *applicable laws** relevant for conformance with Criterion 1.3 and Criterion 1.5. 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.

| **1. *Legal** rights to harvest** | |
|---|---|
| **1.1. Land *tenure** and management rights** | ○ Forest Reserve Act of 1891<br>○ Organic Act (1897)<br>○ Bankhead-Jones Farm Tenant Act of 1937<br>○ Multiple-Use Sustained-Yield Act (1960)<br>○ National Forest Management Act (1976)<br>○ Cooperative Forestry Assistance Act of 1978 |
| **1.2. Concession licenses** | ○ 36 CFR §223: Sale and disposal of national forest system timber<br>○ This is also largely regulated at the state level |
| **1.3. Management and harvesting planning** | ○ Wilderness Act (1964)<br>○ Bankhead-Jones Farm Tenant Act of 1937<br>○ National Forest Management Act (1976)<br>○ Cooperative Forestry Assistance Act of 1978<br>○ Multiple-Use-Sustained-Yield Act of 1960 (MUSYA) |

| | |
|---|---|
| | ○ Federal Land Policy and Management Act of 1976<br>○ 2012 USFS Planning Rule (36 CFR §219)<br>○ Forest Service Directives: Forest Service Manuals (FSM) and Forest Service Handbooks (FSH)<br>○ Food, Agriculture, Conservation, and Trade Act of 1990<br>○ Forest Stewardship Act of 1990 |
| **1.4. Harvesting permits** | ○ USDA Regulations: 36 CFR §251 and 36 CFR §223<br>○ See relevant state laws governing harvesting permits |
| **2. Taxes and fees** | |
| **2.1. Payment of royalties and harvesting fees** | ○ Knutson-Vandenberg (K-V) Act of 1930<br>○ 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** | ○ Sales tax is assessed at the state level |
| **2.3. Income and profit taxes** | ○ Internal Revenue Code of 1986<br>○ Relevant state taxes |
| **3. Timber harvesting activities** | |
| **3.1. Timber harvesting regulations** | ○ Lacey Act (1900) and 2008 amendment<br>○ Multiple-Use-Sustained-Yield Act of 1960 (MUSYA)<br>○ Federal Land Policy and Management Act of 1976<br>○ National Forest Management Act (1976)<br>○ Cooperative Forestry Assistance Act of 1978<br>○ Food, Conservation, and Energy Act of 2008<br>○ 2012 USFS Planning Rule (36 CFR §219)<br>○ USDA Regulations (36 CFR §251) |
| **3.2. Protected sites and species** | ○ Lacey Act (1900)<br>○ Endangered Species Act (1973)<br>○ National Historic Preservation Act (1966)<br>○ Native American Graves Protection and Repatriation Act (NAGPRA)<br>○ Archeological Resources Protection Act<br>○ National Environmental Protection Act (NEPA)<br>○ Executive Order 13007 Indian Sacred Sites |
| **3.3. Environmental requirements** | ○ Lacey Act (1900: 16 USC Ch. 53 §3371–3378)<br>○ Bankhead-Jones Farm Tenant Act of 1937 |

| | |
|---|---|
| | ○ Clean Air Act (1970; 42 USC Ch. 85)<br>○ National Environmental Policy Act (NEPA; 1970; 42 USC Ch. 55)<br>○ Clean Water Act (1972)<br>○ Endangered Species Act (1973)<br>○ Migratory Bird Treaty Act 1918 16 U.S.C. §§703-712<br>○ Resource Conservation and Recovery Act (1976)<br>○ Cooperative Forestry Assistance Act of 1978<br>○ Comprehensive Environmental Response, Compensation, and Liability Act of 1980<br>○ 2012 USFS Planning Rule (36 CFR §219)<br>○ Food, Agriculture, Conservation, and Trade Act of 1990<br>○ Forest Stewardship Act of 1990 |
| **3.4. Health and safety** | ○ Occupational Safety and Health Act (OSHA)<br>○ EPA Toxic Substances Control Act (TSCA) Title VI (EPA formaldehyde emission regulation)<br>○ US Housing and Urban Development (HUD) Manufactured Home Construction and Safety Standards (24 CFR §3280)<br>○ 49 CFR Parts 300–399: Regulations of the Federal Motor Carrier Safety Administration (FMCSA)<br>○ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)<br>○ EPA Agricultural Worker Protection Standard (WPS)<br>○ The Immigration and Nationality Act (INA)<br>○ Fair Labor Standards Act<br>○ 29 CFR-General Standards |
| **3.5. *Legal** employment** | ○ Relevant US federal and state labor and employment laws, including but not limited to:<br>– Fair Labor Standards Act (FLSA)<br>– Immigration and Nationality Act (INA)<br>– Migrant and Seasonal Agricultural Worker Protection Act (MSPA) |
| **4. Third parties' rights** | |
| **4.1. *Customary rights**** | ○ 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. *Free Prior and Informed Consent**** | ○ *Free, prior, and informed consent (FPIC)** is established in international law (UN Declaration on the Rights of Indigenous Peoples), to which the US is a signatory. While *FPIC** is not addressed explicitly in the US Code, the following federal laws* address some elements of *FPIC**: |

| | |
|---|---|
| | ○ Indian Self-Determination and Education Assistance Act<br>○ Indian Reorganization Act, 1934<br>○ Indian Self-Determination and Education Assistance Act, Public Law 93-638<br>○ Indian Trust Asset Reform Act -2016 (*ITARA*)<br>○ U.S. court cases may clarify the standing of *FPIC** in the US. The Supreme Court case *Montana v. United States* 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. *Indigenous Peoples'** rights** | ○ 25 USC §1–17, establishing the Bureau of Indian Affairs<br>○ Cooperative Forestry Assistance Act of 1978 and Food, Agriculture, Conservation, and Trade Act of 1990<br>○ Healthy Forest Restoration Act (2003)<br>○ Indian Citizenship Act 1924<br>○ Indian Civil Rights Act<br>○ The Civil Rights Act of 1964<br>○ Indian Reorganization Act, 1934<br>○ American Indian Religious Freedom Act (AIRFA)<br>○ Indian Self-Determination and Education Assistance Act, Public Law 93-638<br>○ Fair Labor Standards Act<br>○ Indian Trust Asset Reform Act -2016 (ITARA)<br>○ Indian Health Care Improvement Act 1977; Snyder Act 1921<br>○ Native American Housing Assistance and Self Determination Act (NAHASDA) 1996<br>○ Native American Graves Protection and Repatriation Act (NAGPRA)<br>○ National Historic Preservation Act<br>○ Archeological Resources Protection Act<br>○ National Environmental Protection Act (NEPA)<br>○ Executive Order 13007 Indian Sacred Sites<br>○ Indian Education Act 1972<br>○ The Indian Mineral Leasing Act of 1938 (IMLA)<br>○ Indian Mineral Development Act of 1982<br>○ Indian Tribal Energy Development and Self-Determination Act of 2005<br>○ Indian Tribal Energy Development and Self-Determination Act Amendments of 2017<br>○ American Indian Culture Practice Act |

## 5. Trade and transport

| | |
|---|---|
| **5.1. Classification of species, quantities, qualities** | ○ Classification systems are assessed at the regional USFS level |
| **5.2. Trade and transport** | ○ Lacey Act (1900) and 2008 amendment<br>○ Endangered Species Act (1973)<br>○ 15 CFR: Commerce and Foreign Trade |
| **5.3. Offshore trading and transfer pricing** | ○ Internal Revenue Code of 1982<br>○ Countries with transfer pricing regulations generally follow guidelines from the Organisation for Economic Cooperation and Development (OECD) guidelines<br>○ Although the IRS provides rules for transfer pricing, offshore trading is often difficult to regulate by national governments |
| **5.4. Custom regulations** | ○ Homeland Security Act of 2002 and establishment of Customs and Border Protection<br>○ 15 CFR: Commerce and Foreign Trade |
| **5.5. CITES** | ○ Lacey Act (1900) and 2008 amendment<br>○ Endangered Species Act (1973) |
| **6. Due diligence / due care** | |
| **6.1. Due diligence / due care procedures** | ○ 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).<br>○ Penalties for violation of the Lacey Act are financial penalties and possible imprisonment. |
| **7. Ecosystem Services** | |
| | ○ Food Security Act of 1985<br>○ Food, Conservation, and Energy Act of 2008<br>○ Food, Agriculture, Conservation, and Trade Act of 1990<br>○ National Forest-Dependent Rural Communities Economic Diversification Act of 1990 |
| **8. Nationally Ratified ILO Conventions and Codes that have an impact on forestry operations and practices** | |
| | ○ 105 Abolition of Forced Labour Convention, 1957.<br>○ 182 Worst Forms of Child Labour Convention, 1999. |

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## 9. Other applicable laws/legislation

- 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 legal* basis governing conservation* and national parks and forests*.
- 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 resolution framework

(Guiding section)

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

This Standard requires *The Organization** to have a system in place to identify, prevent, and resolve *disputes** related to:

- *Applicable law** (Criterion 1.6);
- Employment conditions for *workers** who are implementing *management activities** under the scope of this Standard (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).

The framework for addressing *disputes** throughout the Standard is provided in the *Indicators** of Criterion 1.6 and is designed to address the types of *disputes** identified above in a consistent manner. It is also intended to ensure the appropriate level of response and action required is taken by *The Organization**.

The key elements of the framework are (per Criterion 1.6):

1) *The Organization** prevents *disputes** when it can, but if it cannot prevent them, it works to manage and resolve them in a *timely manner**, outside of the court system.
2) People are able to make their *disputes** known to *The Organization**.
3) *The Organization** has a *dispute** resolution process for managing the full spectrum of *disputes** that may be received (from low consequence/magnitude to *disputes of substantial magnitude**) that was developed through *engagement** with the kind of individuals who would likely be bringing the types of disputes identified above.
4) *The Organization** identifies and implements mechanisms for providing *fair compensation** when needed in certain situations.
5) If a *dispute** is, or escalates to, a *dispute of substantial magnitude**, the value or *right** at *risk** needs to be maintained/*protected** while the *dispute** is being resolved.
6) Records are kept of *disputes** received, as well as the outcomes of those *disputes**.

Where *applicable laws** exist for resolving grievances and/or compensation out of court, implementation of these *legal** provisions might suffice for conformance with relevant *Indicators** in Criterion 1.6.

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**. All parties involved in the *dispute** are expected to be working in *good faith** and in a *reasonable** manner, and 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*).

Pertinent Definitions from Annex A

*NOTE: Annex A is normative, and therefore these definitions are also.*

**Affected stakeholder:** Any person, group of persons or entity that is or is likely to be subject to the effects of the activities of a *management unit**. 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 *management unit**. The following are examples of *affected stakeholders**:

- *local communities**
- *indigenous peoples**
- *workers**
- *forest** dwellers
- neighbors
- downstream landowners
- local processors
- local businesses
- *tenure** and use *rights holders**, including landowners
- Organizations authorized or known to act on behalf of *affected stakeholders**, for example social and environmental NGOs, labor unions, etc.

**Dispute:** An expression of dissatisfaction by any person or organization presented as a complaint to The Organization, relating to its management activities or its conformity with the FSC Principles and Criteria, where a response is expected.

**Dispute of substantial duration:** *Dispute** 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 *dispute**, based on the 3 month timeline in FSC-STD-20-001).

**Dispute of substantial magnitude:** *Dispute** that involves one or more of the following:

- Where the negative impact of *management activities** on *local communities'** or *Native American* Indigenous Peoples'* rights** is of such a scale that it cannot be reversed or mitigated
- Where the negative impact of *management activities** 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
- Long-term, sustained presence of military bodies;
- Acts of intimidation against *workers** and *affected stakeholders**
- A *dispute** can become of substantial magnitude if it is of *substantial duration**, involves a significant number of interests and/or has a significant negative impact to the *forest** resource/value
- A *dispute** can immediately become a *dispute of substantial magnitude** if it represents a credible, imminent, and irreparable threat to or from any of the above

*Disputes of substantial magnitude** are not common and represent the exception.

**Engaging/engagement:** The process by which *The Organization** communicates, consults and/or provides for the participation of interested and/or *affected stakeholders** in a *culturally appropriate**

manner, ensuring that their concerns, desires, expectations, needs, *rights** and opportunities are considered in the establishment, implementation and updating of the *management plan** and implementation of associated activities.

**Good faith:** The principle of *good faith** 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 *disputes**.

**Management activity:** Any or all operations, processes, or procedures associated with managing a *forest**, including but not limited to: planning, consultation, harvesting, access construction and maintenance, *silvicultural** activities (planting, site preparation, tending), monitoring, assessment, and reporting.

**Persistent complaint:** A complaint: a) that has already been resolved and closed; or b) that has been submitted to any other entity handling complaints in the FSC system and are still under investigation; or c) that is similar to a previously submitted complaint, with no or minor additions/variations and the complainant insists be treated as a new complaint.

**Vexatious complaint:** A complaint: a) without reasonable or probable cause; or b) without good grounds or merit; or c) meant to cause trouble and harm, namely malicious; or d) meant to harass (e.g., use of insulting and threatening language).

Considerations for Design of the *Dispute** Resolution Process

- *The Organization** might wish to include requirements or minimum thresholds for what information that must be provided when a *dispute** is submitted, or how it is submitted, such as:
    - It must be in writing
    - It must include full contact information for the submitter
    - It must include specifics regarding the laws, rights, or elements of the standard that have been violated, which management activity(ies) resulted in the violation and the geographic location where the violation occurred
    - It must include evidence of this violation
    - It must include what modifications are considered appropriate to avoid or mitigate impacts of the violation
- *The Organization** might wish to define different approaches to resolving a *dispute** that match the level and nature of potential *disputes**, such as more informal discussion-based approaches for complaints of lower consequence/magnitude, a more formal structure for resolving those of greater consequence/magnitude and possibly involving a neutral third party to facilitate mediation, negotiation, or other conciliatory processes for *disputes of substantial magnitude**.
- *The Organization** might wish to specify other aspects of the *dispute** resolution process that will change if/when a *dispute** escalates to a greater magnitude and/or identify triggers for escalation of a *dispute**.
- *The Organization** might wish to establish special processes for handling abusive submissions, such as *persistent complaints** and/or *vexatious complaints** – see also “Special Situations” below.
- *The Organization** might wish to describe if/how it will respond to *disputes** outside of the categories required by the standard (see “Background” section).
- *The Organization** might wish to clarify how the submitter of the *dispute** will be kept informed of the actions/steps being taken by *The Organization** to resolve the *dispute**.

- *The Organization** might wish to define a timeline for response to the submitter of a *dispute** and/or other components of the *dispute** resolution process (i.e., to help manage the expectations of the submitter).
- *The Organization** might wish to clarify that *disputes** are expected to be dealt with by those closest to the situation and with the relevant parties involved.
- *The Organization** might wish to clarify what actions need to be immediately implemented (or halted) in the case of *disputes** arising from the infringement of *Native American** *Indigenous Peoples'** *rights** to ensure that the *rights** are upheld as required per Criterion 3.2.
- Per Indicator 1.6.3, the *dispute** resolution process is required to:
    - Identify mechanisms for providing *fair compensation** when applicable in certain situations (but could point to external mechanisms, such as workers' compensation insurance, to address this requirement);
    - Identify mechanisms to address *disputes of substantial magnitude**; and
    - Include a requirement that operations are suspended in the area directly related to where the *dispute of substantial magnitude** exists and will not be re-initiated until the *Certification Body** has determined that the operations would be in conformance with the Standard (i.e., not negatively impact the right or value at issue in the *dispute**).
- *The Organization** might wish to describe how it will determine whether the following have occurred (as related to *disputes of substantial magnitude**):
    - "Significant destruction of property" – Considerations could include attributes such as: 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**).
    - "A significant number of interests" – Considerations might focus on 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).
    - "Significant negative impacts to the *forest** resources/values" – Considerations might include attributes such as: 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).

Special Situations

**Persistent and Vexatious Complaints:** FSC has an interpretation that specifically addresses handling of *persistent complaints** and *vexatious complaints** (INT-STD-60-004_04). It provides some basic principles for the *dispute** resolution process as it relates to abusive uses of the process, procedural requirements for classifying and handling *persistent complaints** and *vexatious complaints**, and additional options for consequences for these kinds of submissions. Key elements of the interpretation include:

- The presumption should always be that a submission to the *dispute** resolution process is made in *good faith** and that the abuse of the process is exceptional.
- *The Organization** has the right to assess the admissibility of submissions (i.e., complaints) to its *dispute** resolution process and consider those that are abusive (i.e., those that are using the

*dispute** resolution process in a harmful way for purposes other than those for which it is designed) to be inadmissible.

- If this happens, *The Organization** needs to communicate this decision to both the submitter and also to the *Certification Body**.

**If *Good Faith** is Exhausted:** The *dispute** resolution framework in Criterion 1.6 is intended to provide parties with an avenue to manage *dispute** resolution in *good faith** and outside of courts. However, if *good faith** is exhausted and the parties have not agreed on a resolution, there are no further expectations provided for *The Organization** in the standard and therefore, *The Organization's** *dispute** resolution responsibility ends. Additionally, if *The Organization** is audited by their *Certification Body** to be in conformance with the applicable indicator(s) of the standard (i.e., those related to compliance with *applicable laws**, employment conditions for workers*, upholding *rights** held by *Native American** *Indigenous Peoples**, and addressing Impacts of *management activities** on affected *local communities** and other *affected stakeholders**), *The Organization's** *dispute** resolution responsibility ends. If either of these situations occurs, the party bringing the *dispute** has the option to: 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** should always be 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.

## Annex E Training for *workers**

(Normative section)

The following information is intended to help *The Organization** conform with Criterion 2.5. Consultation of Annex E is required per Indicator 2.5.2. Not all training listed may be applicable, and additional training may also be needed.

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 potentially applicable training topics, 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** *Indigenous Peoples** 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** *Indigenous Peoples** 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** or *traditional peoples** 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. Identify and assess *environmental values** (identified per Indicator 6.1.1) in the field that may be affected by *management activities**, such as rare, threatened, and endangered species* and rare ecological communities* and plant communities (Criterion 6.1);
12. appropriately handle, apply, and store *pesticides** in accordance with *The Organization's** procedures (Criterion 10.7); and
13. 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**

(Guiding section)

The following guidance is intended to help *The Organization** conform with Principle 3 and Principle 4, but is not normative. Other communication approaches and *Free, Prior, and Informed Consent (FPIC)** methodologies that are *culturally appropriate** and that align with the *Principles** and *Criteria** may also be used.

**Applicability:** Any *traditional peoples** that are federally recognized are to be treated as equivalent to *Native American Indigenous Peoples** for the purpose of Principle 3 and the remainder of this standard (per FSC Principles & Criteria; FSC-STD-01-001 V5-3). Those that are not federally recognized are to be treated as equivalent to *local communities** for the purpose of Principle 4 and the remainder of this standard, with the exception of Criterion 4.2 and Criterion 4.8 which include separate expectations regarding *FPIC** for *traditional peoples** even if they are not federally recognized.

**Scope:** The following guidance focuses primarily on communication and *FPIC** processes with *Native American** *Indigenous Peoples** that hold *legal** or *customary rights** that may be affected by *forest** *management activities**. However, guidance for *culturally appropriate** communication with *traditional peoples** and other *local communities** is also included. The *FPIC** guidance provided would also apply in any circumstances where there are *traditional peoples** that hold *legal** or *customary rights** which may be affected by *management activities**.

NOTE: Much of 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**.

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**PERTINENT DEFINITIONS FROM ANNEX A**

*NOTE: Annex A is normative, and therefore these definitions are also.*

**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 which 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. NOTE: As of the effective date of this Standard, no *customary rights** have been established for non-Indigenous *local communities** in the United States, but it is possible that they may be established in the future for long-held practices.

**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 (*federal 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.

**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 (county, city, state, or nation).

**Traditional peoples**: 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 or organization, and associated internal processes, what is *culturally appropriate** for one *Indigenous People** might 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 could be considered, but ought not be interpreted as a comprehensive checklist of actions to be completed:

- Review the group's official online materials (if available), including identifying the relevant *tribal** government or organization, reviewing their materials, and identifying points of contact.
- 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/organization officials when applicable.

- *Native American* Indigenous Peoples** may suggest meeting with cultural leaders in addition to staff or the group's government/organization 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 need to 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/organization 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 to multiple contact attempts), 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** ***Traditional Peoples****

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** 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**, efforts would be best focused on identifying representatives who have delegated authority from the community, such as a mayor, commissioner, city council members, other elected officials or others who have the authority to represent the community as a whole. 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. *The Organization** is expected to do its best to determine what is *culturally appropriate**. but if the representatives of the *traditional people** request a specific type of *engagement**, then by definition, this needs to be respected.

Guidance for addressing a lack of response from a *traditional people** is similar to that provided above for *Native American** *Indigenous People**.

***Culturally Appropriate**** **Communication with Other *Local Communities****

Similar to the above section, when initiating contact and communication with other *Local Communities** (i.e., those that are not *Native American** *Indigenous Peoples** or *traditional peoples**), efforts would be best focused on identifying representatives who have delegated authority from the community, such as a mayor, commissioner, city council members, other elected officials or others who have the authority to represent the community as a whole. If this is not possible, other individuals who can represent the community as a whole are preferred, such as other civic leaders.

Generally, interactions with *local communities** are best conducted as they are with any other government or organization. Email, phone, postal mail, and in-person contact are all *culturally appropriate** forms of communication and are therefore options for *engagement** purposes, unless the representatives of the *local community** request a specific type of *engagement**. If this happens, by definition, it needs to be respected.

Simple, one-time notification, without any further interaction, is not adequate to meet the definition of "*engagement**". *The Organization** is expected to be able to demonstrate that they have tried to further *engage** with the *local community** following initial notification (i.e., multiple communication attempts), before giving up. However, if the *local community** does not respond, then The Organization's *engagement** responsibility ends until the *management plan** is next revised.

## ***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 *traditional peoples** in certain contexts.

**Scope:** Per Principle 3, *FPIC** is required when *The Organization's** *management activities** potentially 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 *traditional peoples** hold *legal** or *customary rights**.

**STEP 1.** Assess the historical and/or current presence of *Native American** *Indigenous Peoples** (in the conterminous U.S., commonly referenced as "tribes") and *traditional peoples** (see below) within or near the *management unit** (MU). [Linked to Indicators 3.1.2 and 4.1.1]

- If none are identified, no *FPIC** is required
- If presence is indicated, clearly identify the *Native American** *Indigenous Peoples** or *traditional peoples**, and go to Step 2.

Step 1 Guidance:

- There are essentially no locations in the United States without historical *tribal** presence.
- An internet search for credible sources is likely to turn up several possible qualifying *Native American** *Indigenous Peoples** that now exist or that once existed in a particular locale. Lists of federally-recognized and state-recognized *Native American** *Indigenous Peoples** are publicly available from Federal and State agencies. The US Forest Service maintains a comprehensive source of information on current *tribal** lands and lands that were ceded to the US government. Native Land Digital, a Canadian non-profit, may also provide relevant information. 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** and *traditional peoples** not recognized by federal or state governments will require more investigation and validation. *Local** governments may acknowledge and support validation of *Native American** *Indigenous Peoples** and *traditional peoples**.
- The following criteria, from the National Congress of American Indians By-laws (applicable to the membership process), could be used to help identify *Native American** *Indigenous Peoples** that have not been recognized by federal or state governments:
    - A substantial number of its members reside upon the same reservation or, in the absence of a reservation in the same general locality
    - It maintains a tribal organization, with regular officers and the means of transacting business and arriving at a reasonably accurate count of its membership
    - It is not a mere offshoot or fraction of an organized Tribe, itself eligible for membership
    - It is recognized as a Tribe or other identifiable group of American Indians by the Department of the Interior, Court of Claims, the Interior, Court of Claims, the Indian Claims Commission, or a State
- FSC US will be identifying and sharing information sources to support identification and confirmation of *Native American** *Indigenous Peoples**.
- Table 1 and the following steps provide guidance regarding subsequent actions for different groups of peoples.

Table 1. *Native American** *Indigenous Peoples** and Other Communities that Need to be Identified and Assessed for Existence of *Rights** that May be Impacted by *Management Activities**

| | |
|---|---|
| *Native American* Indigenous Peoples** | *Native American* Indigenous Peoples** and their *rights** ought to be easily verifiable if they have been federally- or state-recognized. Other *Native American* Indigenous Peoples** and their *rights** will be more difficult to verify.<br><br>If *legal** or *customary rights** exist, *FPIC** needed. If *legal** or *customary rights** do not exist, no *FPIC** required. |
| *Traditional Peoples** | Any *traditional peoples** that are federally-recognized are to be treated as equivalent to *Native American* Indigenous Peoples** (see above row). *Traditional peoples** that are not federally-recognized may be more difficult to verify (including verification of *rights**).<br><br>NOTE: There is no one specific federal process for recognizing *traditional people**. For example, the Gullah-Geechee people have been federally recognized via the Gullah Geechee Cultural Heritage Corridor (established under the National Heritage Act to call attention to the historic and cultural contributions of the Gullah Geechee people), but in this instance and others, further investigation would be required to determine whether these people meet the definition of "*traditional people**."<br><br>If *legal** or *customary rights** exist, *FPIC** needed. If *legal** or *customary rights** do not exist, no *FPIC** required. |
| Other *Local Communities** | If *legal** or *customary rights** exist, they must be upheld, but no *FPIC** is required. |

**STEP 2**. Identify representatives of the *Native American* Indigenous Peoples** or *traditional peoples** identified; decide whom to contact and how to vet various contacts. [Linked to Indicators 3.1.2 and 4.1.1]

Step 2 Guidance:

- *Tribal** governments/organizations are recognized by other entities and are democratically chosen, representing *Native American* Indigenous Peoples*.* If neither the official governmental/organizational representatives of the group nor the group's government/organization structure can be determined, further investigation might be needed to determine the validity of the group as a potential *rights holder**. Once vetted, *engagement** is best conducted through *tribal** representatives.
- Normally the contact person for a *tribal** government/organization 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 *tribal** government/organization (see above guidance for *culturally appropriate** communication). It's important that the *tribal** governmental/organizational 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.
- Government entities may have additional legal requirements and/or restrictions governing how contact with *tribal** governments/organizations occurs.

- Determining the best contact for *traditional peoples** may be more difficult. However, similar to *tribal** governments/organizations, initial contacts ought to be with individuals who have been elected as or who are recognized by their community members as community representatives or leaders.

**STEP 3**. Do the *Native American** *Indigenous Peoples** or *traditional peoples** claim *legal** and/or *customary rights** within or near the *management unit** that could be affected by *management activities**? [Linked to Indicators 3.1.2 and 4.1.1]

– If No, no *FPIC** required but the group need to be treated as an *interested stakeholder**.

– If Yes, inform the group of proposed *management activities**.

Step 3 Guidance:

- Contact is best conducted through their *tribal** government/organization 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 *tribal** government/organization 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 *traditional peoples** may identify issues or activities of particular concern and are expected to 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 *traditional peoples**. [Linked to Indicators 3.1.2 and 4.1.1]

– If verifiable *legal** or *customary rights** exist for a *Native American** *Indigenous Peoples** or *traditional peoples**, go to Step 5.

– If a *Native American** *Indigenous Peoples** or *traditional peoples** 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** or *traditional people** does not hold any *legal** rights or *customary rights** they are still an important stakeholder.
- *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.
- Verification of *customary rights** will include evaluation of evidence regarding the duration of time during which the action in question has been repeated without interruption, and acceptance of or resistance to that action during that time period.

**STEP 5**. Does the *rights holder** wish to engage with *The Organization** regarding the proposed *management activity*(*ies*)*? [Linked to Indicators 3.2.2 and 4.2.1]

– 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** needs to 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, per Principle 3, 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).

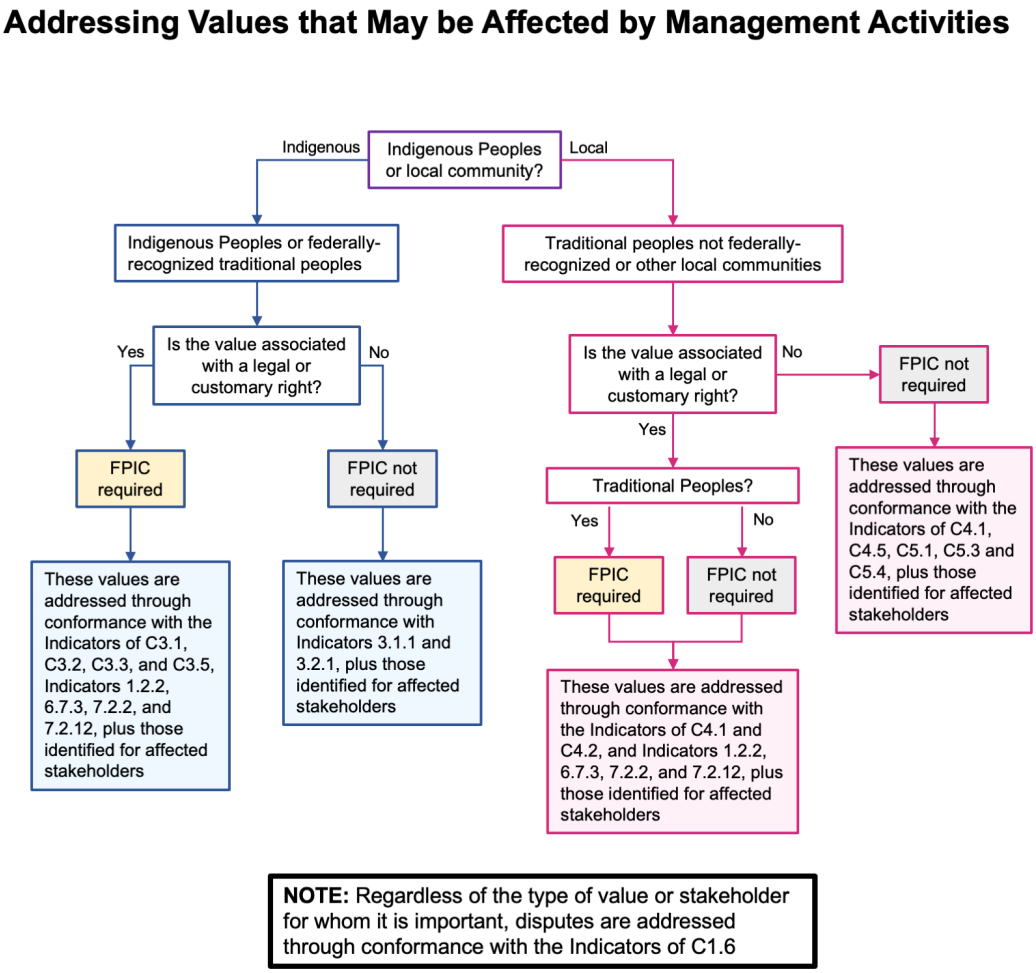
**STEP 6**. Through active and *engagement**, collaboratively move toward a decision regarding the *management activity*(*ies*)*. [Linked to Indicators 3.2.2, 3.2.3, 3.3.1 and 4.2.1]

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 an *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** ought to 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 to Address Potential Impacts from Proposed *Management Activities**



## Annex G *Representative Sample Areas**

(Guiding section)

Annex G provides guidance for conforming with Criterion 6.5, but is not normative.

Guidance specifically for *family forest* management units** and additional information for the *best available information** referenced in the below text are provided at the end of this Annex.

**Introduction:**

This Annex provides guidance for identifying *Representative Sample Areas** (RSA), in addition to guidance for management and activities within *RSA** and managing to *restore** more *natural conditions** inside or outside of *RSA**.

*RSA** can have multiple purposes. The primary purpose is for *conservation** (i.e., maintaining or enhancing) or *restoration** of areas that serve as ecological references (i.e., for researchers, conservationists or others to help understand a system better and determine what is needed in a different location for *conservation** or *restoration** of a similar *ecosystem**) – this may be for a particular *native ecosystem** or for a particular ecological condition of a *native ecosystem**. Other additional potential purposes include provision of *refugia** or reservoirs for *species** and *ecological communities** (i.e., helping to ensure *conservation** of the full breadth of *biodiversity**), and provision of *habitat** "stepping stones" to help *species** cope with climate change. The guidance in this annex focuses on the primary purpose.

The *Indicators** of Criterion 6.5 focus the designation of *RSA** within the *management unit** on those *ecosystems** and/or ecological conditions that are not adequately represented and *protected** in the *landscape**. This is intended to reflect that there may already be adequate representation and *protection** within the landscape for some, and it would provide greater environmental benefit for *The Organization** to focus on those without.

If the *management unit** extends into multiple Ecological Sections (i.e., the so named scale within the hierarchy of the US Forest Service's ecological classification system; Cleland 2007, https://www.fs.usda.gov/research/treesearch/48672), *The Organization** is encouraged to separately assess the portions of the *management unit** in each Ecological Section.

**Ecological Conditions:**

Most *ecosystems** occur across a range of ecological conditions, and sometimes particular ecological conditions are identified as being inadequately represented or *protected**. Examples could include particular *successional** stages, particular *species** compositions, conditions representative of an extreme extent of the range of where the *ecosystem** typically occurs (e.g., the northern most-extent, or the wettest of possible conditions) and situations when the *ecosystem** occurs in an unexpected location due to an area's glacial history.

***RSA** vs. *HCV** vs. *Rare Ecological Community**:**

*RSA** could potentially overlap with *High Conservation Values** (HCV), most likely with *HCV** Type 1 (concentrations of *biodiversity**) and/or Type 3 (rare *ecosystems** and *habitats**). For *HCV** Type 1, the overlap might occur if the concentration of *biodiversity** is associated with an *ecosystem** or ecological condition that is inadequately represented or *protected** within the *landscape** of the management unit*. However, as the scale of *HCV** Type 1 consideration is significance at global, national, or regional levels, and the scale of *RSA** consideration is the *landscape** of the *management unit**, these may not always align. For *HCV** Type 3, the overlap might occur if the rare *ecosystem** or *habitat** (if associated with a particular ecological condition) is inadequately represented or *protected** within the *landscape** of the

*management unit**. However, there will not be overlap with *HCV** Type 3 if the particular rare *ecosystem** or *habitat** is adequately represented and *protected** within the *landscape**.

*Rare ecological communities** are expected to be identified per Criterion 6.1, *protected** from *management activity** threats per Criteria 6.2 and 6.3, and then maintained, *restored** or enhanced per Criterion 6.6. Guidance for identification focuses on consideration of rarity at global and state scales, which (similar to *HCV** Type 3) could result in an overlap with *RSA** if the *rare ecological community** is also inadequately represented or *protected** at the *landscape** scale.

While *HCVs** and *rare ecological communities** will be mostly focused on *ecosystems** that are more rare, it is possible to identify a value for *RSA** for more common *ecosystems** or (perhaps more likely) ecological conditions associated with more common *ecosystems**, if they are not adequately represented or *protected** at a *landscape** scale. The Indicators of Criterion 6.5 focus on representation and *protection** of *native ecosystems**, and not ecological conditions associated with them, but this still represents an opportunity for identification and designation of potential *representative sample areas**.

**Designating *RSA** Outside of the *Management Unit**:**

Per Interim Indicator 6.5.2, if *The Organization** depended on *RSAs** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1, it will temporarily be able to continue to do so, but must also demonstrate that it is working toward eliminating the dependency.

Other than the interpretation mentioned in the *family forest** guidance below, this is the only way that *RSAs** outside of the *management unit** are allowable. This temporary exception is not applicable for federal *management units** (per Federal Lands Supplement2 to Indicator 6.5.2) nor *management units** that are more than 5% *plantations** (per PL Indicator 6.5.2).

**Identifying *Native Ecosystems** that Would Typically Occur in the *Management Unit**:**

While an “ecosystem” as an ecological concept could 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/)

It may help to begin by considering which *ecosystems** occurred historically within the *management unit**, with consideration of the historic conditions assessed per Indicator 6.1.1, along with existing climate and soil conditions. Other potential sources of *best available information** include State Heritage Programs, NatureServe, LANDFIRE, USDA Forest Inventory Analysis and state agencies. Current vegetation cover may also assist, with potential sources of best available information including the Gap Analysis Project, LANDFIRE and state agencies.

**Assessing Adequacy of Representation and *Protection**:**

This assessment could be based on: a) an analysis using available data (completed by or for *The Organization**), or b) existing evaluations or assessments completed at a state or *ecoregion** or finer scale, or c) a combination of both. Potential sources of *best available information** for existing assessments include State Wildlife Action Plans, State Forest Plans, State Heritage Programs, other regional and local conservation organizations and regional planning initiatives. Potential sources of *best available information** for data analyses include the Gap Analysis Project, LANDFIRE, PAD-US, State Heritage Programs, and state agencies.

The scale for this assessment is the *landscape** within which the *management unit** occurs, including the management unit* itself (as it is part of the *landscape**).

For each *ecosystem** identified per Indicator 6.5.1, the following considerations would help to provide the most robust *landscape** assessment, but are not specifically required per the Indicators of Criterion 6.5:

a. The extent (number, size) of *viable** examples of the *ecosystem** that currently occur within the *landscape**
b. The percentage of *ecosystem** examples within the *landscape** that are *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**

"Protected" is generally aligned with *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 appropriate for consideration.

**Identifying *Viable** Examples of an *Ecosystem** within the *Management Unit**:**

"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. The critical components include those components that are used to define or describe the *ecosystem**, such as certain key *species** (plant or animal) or species groups, or a particular ratio of species, or a particular structure of vegetation (vertical or horizontal). The critical functions include those ecological functions that are essential for the system to continue to exist, such as natural disturbances, hydrology, and decomposition. Potential sources for *best available information** include State Heritage Programs, NatureServe and NatureServe Explorer, state agencies, other regional or local conservation organizations.

Some additional considerations that may be helpful during identification of *RSA**:

a. 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 ought to be large enough to be *viable**.
b. A single larger *RSA** is generally preferable to multiple smaller *RSAs**.
c. For *ecosystems** that would naturally occur in mosaics, identifying *RSAs** that are adjacent to other *RSAs** is preferable to establishing *RSAs** in isolation.

**Feasibility of *Restoration**:**

Expectations for "restoration" do 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:

a. Climate or other abiotic changes (e.g., hydrology, loss of substrate) have occurred that make it infeasible to *restore** a particular community type
b. Presence of an *invasive species**, pest, or disease that makes *restoration** infeasible
c. It is *economically infeasible** to *restore** that *ecosystem**
d. Successful *restoration** would require the collaboration of other/adjacent landowners who are unwilling to partner
e. *Restoration** of a *viable** *ecosystem** is dependent on ecological functions that are not possible to *restore**, create, or mimic

**Management to *Restore** More *Natural Conditions**:**

Per Indicator 6.5.4, the combined extent of *RSA** plus areas that are being managed to *restore** more *natural conditions** is expected to be proportionate to the levels of representation and *protection** within the *landscape** in which the *management unit** occurs, the size of the *management unit** and the intensity of *forest** management occurring within the *management unit**. This means that if the *landscape**-level representation or *protection** is lower, the *management unit** is larger and/or the intensity of management is greater, but only a very small extent of *RSA** has been designated (per Indicator 6.5.2), the difference will need to be made up with areas that are being managed to *restore** more *natural conditions** (per Indicator 6.5.3).

Managing to *restore** more *natural conditions** means managing sites to favor or *restore** *native species** and associations of *native species** that are typical of the locality by introducing or reintroducing composition, structures and functions that are native to the site, and managing these *species** and/or associations and other *environmental values** so that they form *ecosystems** typical of the locality. Therefore, particular consideration would be best given to promoting the critical components and functions that are used to determine the "*viability**" of a particular *native ecosystem** (see above).

**<u>*Representative Sample Area** Management & Activities</u>**

Management of *RSAs** to achieve all of the potential purposes could potentially 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**. As with management to promote more *natural conditions** described above, particular attention would be best given to maintaining or enhancing the critical components and functions that are used to determine the "*viability**" of a particular *native ecosystem**.* Threats such as wildfire, natural pests, or pathogens could also warrant *management activities** as a means to conserve the *ecosystem**.

EPer Indicator 6.5.5, *management activities** within *RSA** are limited to those that will maintain or enhance the *conservation** objectives of the *RSA**. When *management activities** (including timber harvest) create and maintain particular ecological conditions (e.g., that emulate a mature *forest** or other *successional** phases) that are under-represented in the *landscape**, the *management strategies** that created those conditions could potentially be used to maintain them, and the area could potentially be considered as a representative sample for the purposes of conformance with Criterion 6.5.

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 could possibly be implemented, but it would still need to be possible to achieve the primary purpose of the *Representative Sample Area**.

Other activities that are not *management activities** may occur within *RSA** if they support or do not detract from the purpose(s) of the *RSA**.

**<u>Criterion 6.5 Guidance for *Family Forest* Management Units**</u>**

(Adapted from FSC-STD-30-005 V2-0, Box 5, addressing both *RSA** and the *Conservation Area Network**)

By default, each *management unit** is expected to 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 may 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.

The only additional 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.

**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. LANDFIRE (reference data and disturbance data online via https://landfire.gov)

f. 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. State Forest Action Plans
    (https://www.fs.usda.gov/detail/r9/communityforests/?cid=FSEPRD1000829)
    vi. Tribal natural resources departments
    vii. State wildlife agencies
    viii. Landscape Conservation Cooperatives (https://lccnetwork.org)

g. 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)

h. Regional planning initiatives (e.g., watershed planning organizations/coalitions)

i. 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. |

**a) Can a SLIMF owner or group scheme meet set-aside requirements outside the group?**

**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?**

**c) How is the forest landscape defined?**

a) Yes, if there are insufficient or no representative samples areas within the Management Unit (MU), and under the following conditions:

- 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:
    - 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.

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[2] for evaluation on a case by case basis.

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

[2] At present, Policy and Performance Unit

vegetation zones or other biophysical characteristics reflecting the natural conditions in the country.

**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).

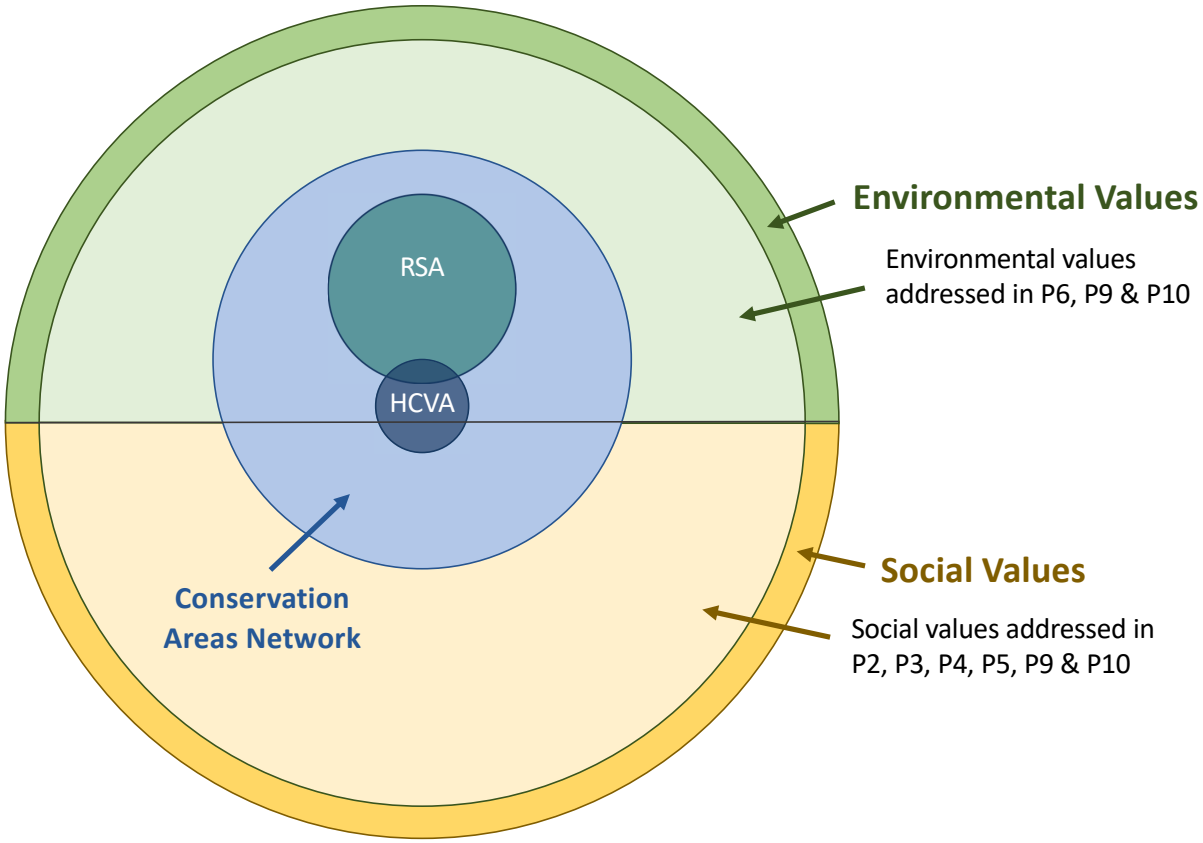
## Annex H *Conservation Areas Network**

(Guiding section)

The following guidance is intended to help *The Organization** conform with Indicator 6.5.7, but is not normative. Other types of conservation areas aligned with the definition of *Conservation Areas Network** may also be considered.

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 necessarily require additional *conservation** outcomes so much as it puts together a complete picture of *conservation**-oriented objectives, composed of various *conservation zones**/*protection 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.

*The Organization** is encouraged to have a single section of the *management plan** to 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 could potentially also be designated as part of the *CAN**. Types of areas not listed in Table 1 may be included in the *CAN** if aligned with the *CAN** definition; determination of alignment will be the responsibility of the *Certification Body**. Areas within the *management unit** that are associated with conservation easements, Habitat Conservation Plans, and/or 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 are aligned with the *CAN** definition, 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 intent is for it to not disproportionately represent non-forested areas, based on overall representation within the *management unit**.

**Including *Conservation** Areas Outside of the *Management Unit**:**

Per Interim Indicator 6.5.7, if *The Organization** depended on *Representative Sample Areas** outside of the *management unit** for conformance with the FSC US Forest Management Standard V1.1, it will temporarily be able to include these areas as part of its *CAN**, but must also demonstrate that it is working toward eliminating the dependency. In these situations, the size of the areas outside of the *management unit** must be combined with the size of the *management unit** to determine the 10% threshold for the *CAN**. This exception for considering areas outside of the *management unit** is not applicable for federal *management units** (per Federal Lands Supplement to Indicator 6.5.7) or *management units** that are more than 5% *plantations** (per PL Indicator 6.5.2).

**Other Activities within the Conservation Area Network**

Generally, activities that support or do not detract from the conditions and values for which an area is recognized as contributing to the *CAN** would be allowable within the area, based on the definitions of "*conservation areas network**" and "*conservation**". Some portions of the *CAN** (e.g., *Representative Sample Areas* (RSA)*, *High Conservation Value Areas* (HCVA)*) will likely have more restrictive limitations on *management activities** than other portions. Threats such as wildfire, natural pests, or pathogens may warrant *management activities** as a means to conserve the *conservation zones*/protection areas**.

**Pertinent Definitions from Annex A:**

*NOTE: Annex A is normative, and therefore these definitions are also.*

**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 Zones and Protection Areas:** Defined areas that are designated and managed primarily to safeguard species, habitats, *ecosystems**, natural features or other site-specific values because of their natural environmental or *cultural** values, or for purposes of monitoring, evaluation or research, not necessarily excluding other *management activities**. For the purposes of the Principles and Criteria, these terms are used interchangeably, without implying that one always has a higher degree of *conservation** or *protection** than the other. The term 'protected area' is not used for these areas, because this term implies legal or official status, covered by national regulations in many countries. In the context of the Principles and Criteria, management of these areas should involve active *conservation**, not passive *protection**'.

**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.

Table 1. Summary of potential *Conservation Areas Network** inclusions based on the FSC US 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 *conserve** *rights** held by others | C1.2 |

| | |
|---|---|
| Areas managed primarily to *conserve** *rights** held by *Native American** *Indigenous Peoples** | C3.2 |
| Areas managed primarily to *conserve** sites of significance for *Native American** *Indigenous Peoples** | C3.5 |
| Areas managed primarily to *conserve** *rights** held by *local communities** | C4.2 |
| Areas managed primarily to *conserve** sites of significance for *local communities** | C4.7 |
| Areas managed primarily to avoid negative cultural impacts on *local communities** | C4.5 |
| Areas managed primarily to *conserve** *ecosystem services** | C5.1 & C6.3 |
| Areas managed primarily to prevent negative impacts of *management activities** on *environmental values** and thereby *conserve** those values | C6.3 |
| Areas managed primarily to *protect** *rare, threatened and endangered species** and their *habitats** | C6.4 |
| Areas established as *Representative Sample Areas (RSAs)**, including both *RSAs** with *conservation** and with *restoration** objectives, and areas being managed to *restore** more *natural conditions** | C6.5 |
| Areas managed primarily to *conserve** *rare ecological communities** | Indicator 6.6.2 |
| Areas managed primarily to *protect** natural watercourses, *water bodies** and *riparian areas**<br><br>NOTE: Following FSC Interpretation INT-STD-60-004_01, riparian zones "created" or planted for purely functional roles (e.g., *erosion** control) need to be excluded from the *CAN**. In a US context, this exclusion will likely be limited and would only apply to *RMZs** that are not concurrently being managed for *conservation** of *riparian areas** or ecological *connectivity**, etc. (e.g., created *erosion** control *buffers** established in land reclamation areas previously used for strip mining). | C6.7 |
| Areas managed primarily to *conserve** ecological *connectivity** | C6.4 & C6.7 |
| Areas managed primarily to *restore** under-represented *species** or *successional** stages | C6.8 |
| Areas managed primarily to *conserve** *old growth** | Indicator 6.8.2 |
| Areas managed primarily for monitoring and/or research that supports *conservation** of environmental and cultural values | P8 |
| Areas identified as *High Conservation Value Areas** | 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** is expected to 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 may 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 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 Forest** (including *Semi-Natural Forest**)

(Guiding section)

The following guidance is intended to help *The Organization** conform with Criterion 6.9, Criterion 6.10, and Criterion 6.11, and determine whether the Plantation Indicators are applicable, but is not normative.

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. However, not all *plantations** are eligible for FSC certification. Any *plantations** converted from *natural forests** (including *semi-natural forests**) or *High Conservation Value Areas** after 2020 are ineligible for FSC certification (with very limited exceptions, as indicated per Criterion 6.11). *Plantations** that were established on areas converted from *natural forests** (including *semi-natural forests**) or *High Conservation Value Areas** between 1994 and 2020 may be eligible for FSC certification if they meet requirements for very limited exceptions or *restitution** has been implemented (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 *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 intention that existing FSC-certified *management units** will be re-evaluated for *plantations** based on this new guidance. It is also not intended that once a *forest** is determined to be *plantation** or *natural forest** (including *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 many of the principal characteristics and key elements of native *forest** *ecosystems** is primary to discerning *natural forests** (including *semi-natural forests**) from *plantations**. Therefore, a "planted *forest**" is not necessarily a "*plantation**" since it might have many of the principal characteristics and key elements of native *forest** *ecosystems** endemic to an area. Additionally, given that the *intensity** of *management activities** could influence the presence of these characteristics/elements, classification of a *forest** as a *plantation** also needs to 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** (including *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** 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 meet the definition of *natural forest** (including *semi-natural forest**) in that it cannot be demonstrated to have many of the principal characteristics and key elements of native *forest** *ecosystems** 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** are intended to 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 from Annex A

*NOTE: Annex A is normative, and therefore these definitions are also.*

**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, such as *restoration** following *catastrophic natural disturbances** or strategies for *conservation** of *high conservation values**, 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**.

NOTE: Very short rotation crops such as Christmas trees are typically not eligible for certification. See advice note ADVICE-20-007-01, found in FSC-DIR-20-007, for further clarification.

**Semi-natural forest:** As a sub-set of *natural forests*, semi-natural forests** are *aforest** *ecosystem** with many of the characteristics of *native ecosystems** present. However, *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:** A *forest** area with many of the principal characteristics and key elements of *native ecosystems**, such as complexity, structure and *biological diversity**, including *soil** characteristics, flora and fauna, in which all or almost all the trees are *native species**, not classified as *plantations**. 'Natural forest' includes the following categories:

- *Forest** affected by harvesting or other disturbances, in which trees are being or have been regenerated by a combination of natural and artificial regeneration with *species** typical of *natural forests** in that site, and where many of the above-ground and below-ground characteristics of the

*natural forest** are still present. In boreal and north temperate forests which are naturally composed of only one or few tree species, a combination of natural and artificial regeneration to regenerate forest of the same *native species**, with most of the principal characteristics and key elements of *native ecosystems** of that site, is not by itself considered as *conversion** to *plantations**;

- *Natural forests** which are maintained by traditional *silvicultural** practices including natural or assisted natural regeneration;
- Well-developed secondary or colonizing *forest** of *native species** which has naturally regenerated in non-*forest** areas;
- The definition of 'natural forest' may include areas described as wooded *ecosystems**, *woodland** and savannah.
- *Semi-natural forests** are a sub-set of *natural forests**.

'Natural forest' (including *semi-natural forest**) does not include land which is not dominated by trees, was previously not *forest**, and/or which does not yet contain many of the characteristics and elements of *native ecosystems**. Young regeneration may be considered as *natural forest** after some years of ecological progression.

NOTE: FSC has not developed globally-applicable quantitative thresholds between different categories of forests in terms of area, density, height, etc. FSC Forest Stewardship Standards may provide such thresholds and other guidelines, with appropriate descriptions or examples. This Standard provides thresholds and guidance in this annex for when *stands** should be considered *natural forest** (based on the principle characteristics and key elements of *native ecosystems** that are present in the *stands**).

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** (including *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** is intended to 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** is intended to be assessed relative to a *natural forest* stand** without a history of human disturbance (i.e., not a *semi-natural forest* stand**) of the same *forest** type, *succession** stage, and site class. Some characteristics/elements might need to be assessed at the *management unit** spatial scale. There will potentially be exceptions when attainment of a 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 most likely *natural forest** (including *semi-natural forest**) and not *plantation**. If all five are not present, then the cause for their absence needs to 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 forest** (including *semi-natural forest**), or it may be determined that the stand is a severely degraded *forest** that does not meet the definition of neither *natural forest** nor *plantation**.

1. **PCKE: Within-*Stand** *Species** Diversity**
If three (3) of the following practices and/or attributes are present, this PCKE can 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 forest** *stand** without a history of human disturbance (i.e., not a *semi-natural forest** *stand**) of the same *forest** type and of the same *successional** stage.

   b. *Native Species**: *Natural forests** without a history of human disturbance (i.e., not a *semi-natural forest**) are composed of *native species**. Regardless of the number of tree *species** present, a *natural forest** without a history of human disturbance (i.e., not a *semi-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 native *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 native *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 forest** *stand** without a history of human disturbance (i.e., not a *semi-natural forest** *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 can be considered present.

   a. Variability in tree density and age of trees is similar to what would be found in *natural forest** *stands** without a history of human disturbance (i.e., not a *semi-natural forest** *stand**) of the same *successional** stage and site class.

   b. The physical characteristics (i.e., size and shape) of trees are similar to conditions in *natural forests** without a history of human disturbance (i.e., not a *semi-natural forest**) of the same *successional** stage and site class.

   c. Understory plant community structure and density is similar to conditions in a *natural forest** *stand** without a history of human disturbance (i.e., not a *semi-natural forest** *stand**) 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 can 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 can 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 can 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.

<u>*Plantation** Management Practices</u>

Examples of *silvicultural** practices that could contribute to the absence of native *forest** *ecosystem** attributes (PCKE) 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 conditions in *natural forests** without a history of human disturbance (i.e., not a *semi-natural forest**)

k. Rotation lengths short enough to prevent *stands** from development into understory reinitiation stages

## Annex J Monitoring impacts on social values and environmental condition

(Guiding section)

The following guidance is intended to help *The Organization** conform with Criterion 8.2, but is not normative. Not all monitoring elements listed may be applicable, and additional elements may also be needed.

Indicators 6.6.4, 6.6.5 Regional Supplement8, 9.4.1, 10.3.2, and 10.8.1, Family Forest Indicators FF 1.4.1, and FF 9.4.1, and Federal Lands Supplementary Requirements for Indicators 2.3.4, 6.7.9, 8.2.1, and 10.9.1, explicitly require monitoring and therefore must be addressed in the monitoring protocol. The expectations for monitoring associated with these *Indicators** are incorporated into the potential monitoring protocol elements listed below. While the remaining elements listed below are not explicitly required in any *Indicator**, monitoring at some level (if applicable to the *management unit**) 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 will likely be 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);
    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 equity**, sexual harassment, and gender *discrimination** (Criterion 2.2);
    v. When *pesticides** are used, potential damage to human health, 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** *Indigenous Peoples** 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** *Indigenous Peoples** and/or *local communities**;
    vii. *Protection** of sites of special *cultural**, ecological, economic, religious, or spiritual significance to *Native American** *Indigenous Peoples** and *local communities** (Criterion 3.5 and Criterion 4.1, Criterion 4.2 and Criterion 4.7), and persistence of areas of special significance and associated values of significance to *Native American** *Indigenous Peoples** (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

Elements for *family forest** *management units** to consider, if applicable:

i. For *public land** only: Evidence of illegal or unauthorized activities (Criterion 1.4)

ii. Outcomes of *disputes** (Criterion 1.6);

iii. When *pesticides** are used, potential damage to human health, consistent with *The Organization's** Environmental and Social Risk Assessments for the *pesticides** used (Criterion 10.7);

iv. Identification of *Native American** *Indigenous Peoples** 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);

v. *Protection** of sites of special *cultural**, ecological, economic, religious, or spiritual significance to *Native American** *Indigenous Peoples** and *local communities** (Criterion 3.5, Criterion 4.1, Criterion 4.2, and Criterion 4.7), and persistence of areas of special significance and associated values of significance to *Native American** *Indigenous Peoples** (Criterion 3.1 and Criterion 3.5);

vi. *Local** economic and social development (Criterion 4.2, Criterion 4.3 and Criterion 4.5) and for *public land** only, use of *local** processing, *local** services, and *local** value-added manufacturing (Criterion 5.4);

vii. Actual vs. projected harvests of timber and *non-timber forest products** (Criterion 5.2) and capacity to implement core *management activities** (Criterion 5.5); and

viii. *High Conservation Values** 5 and 6 (identified in Criterion 9.1).

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 6.4, Criterion 6.7 and Criterion 6.8);

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 6.7 and Criterion 8.2)

*c.* Impacts from fire and fire suppression (Criterion 10.9)

*Family forest** *management units** will likely need to consider all of the above elements, if applicable, with the exception of "Impacts from use of *fertilizers** (Criterion 10.6)," and Item (viii).

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** (including *semi-natural forest**) to *plantations** or to non-*forest** (Criterion 6.9) and the status of *plantations** established after 1994 (Criterion 6.10 and Criterion 6.11);

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.

Elements for *family forest** *management units** to consider, if applicable:

i. Environmental values identified per Indicator 6.1.1 (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. *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** (including *semi-natural forest**) to *plantations** or to non-*forest** (Criterion 6.9) and the status of *plantations** established after 1994 (Criterion 6.10 and Criterion 6.11); and

v. Relative risk of *invasive species** and the effectiveness of strategies implemented to address them (Criterion 6.6).

## Annex K *High Conservation Value** framework

(Normative section)

The following information is intended to help *The Organization** conform with Principle 9. Consultation of Annex K is required per Indicators 9.1.1, 9.2.1 and 9.4.1.

# 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 Forest Stewardship Standard (FSS). 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).

### 1. Introduction

As noted above, FSC gives special attention to biological, ecological, social, or cultural values of outstanding significance (*High Conservation Values*; *HCV**) and the areas needed for their existence and maintenance (*High Conservation Value Areas; HCVA**) 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 Organizations* 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*

While conformance with every element of this Framework is not required, *The Organization** is required to identify and assess HCVs* associated with the *management unit** in a manner consistent with this Framework (per Indicator 9.1.1), and then consult the Framework as they manage and monitor those *HCVs** (per Indicators 9.2.1 and 9.4.1). When this Framework references other normative requirements, the applicable *Criterion** or *Indicator** is noted.

Any FSC Policy, Standard or Procedure referenced or quoted in this guidance document will also be normative, if applicable.

## 2. Confusing and Interrelated Concepts

For consistency, it is important that *The Organization** and *Certification Bodies** are working with a common understanding of numerous concepts when addressing *HCVs**. While not comprehensive, the following provides guidance for some concepts that have or may present particular difficulties. Note that Section 12 provides normative definitions for select 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 FSS (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. HCVA*

By definition, *HCVA** are expected to be considered *conservation zones*/protection 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 FSS. 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 FSS 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, it's important that the "*landscape**" reflects the second bullet 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** in terms of area of influence, and a larger *management unit** a larger *landscape** in terms of area of influence. 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 will likely need to 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 needs to consider whether there are any portions of the *management unit** that ought to 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 is intended to be ecological only. Ecological Provinces defined by Cleland 2007 are expected to 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 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** could 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 9.3.2) 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 identification and assessment 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** *Indigenous Peoples**). 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
- *Engagement** with *Native American** *Indigenous Peoples**, *affected stakeholders** and *interested stakeholders**, per the FSC US Guidance on *Free Prior and Informed Consent** (US FSS, 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 need to 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 American* Indigenous Peoples** (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****

- *Engagement** with *Native American* Indigenous Peoples**, *affected stakeholders** and *interested stakeholders**, per the FSC US Guidance on *Culturally Appropriate Communication & Free Prior and Informed Consent* (US FSS, 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
- *Engagement** with *Native American* Indigenous Peoples**, *affected stakeholders** and *interested stakeholders**, per the FSC US Guidance on *Culturally Appropriate Communication & Free Prior and Informed Consen*t (US FSS, 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* Indigenous Peoples** 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. For conformance purposes, this will need to be done in a transparent manner that can be reviewed by auditors and *interested stakeholders**. The *documentation** could be in the form of an *HCV** assessment report, or (similar to the *management plan**) a collection of documents, reports, records, maps and other materials as applicable. However, if the second approach is taken, *The Organization** is encouraged to prepare a summary that identifies the various materials within the collection, and summarizes the assessment process and its conclusions.

Examples of *documentation** elements 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* Indigenous Peoples** that have a connection to the *management unit** or the *landscape** in which it occurs. The US FSS 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 FSS 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* Indigenous Peoples** 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** 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**, is intended to 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. A specific approach for identification and assessment of *HCV** within *family forests** is provided in Section 11 of this Framework document.

*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 by definition. Due to the context of the United States, the other National *HCV** described below meet the definition of *HCV** except potentially in very rare situations (which will likely need to be well-documented by *The Organization**. Therefore, *The Organization's** *HCV** assessment will most likely need to consider these National *HCV** if present 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 *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, will be the best available information* for identifying *IFL** that existed within the *management unit** as of January 1, 2017. Areas identified by Global Forest Watch are intended to 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 methodology[3]). 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, need not be included in *IFLs**. However, areas with evidence of old disturbances and low-intensity disturbances, such as selective logging for non-commercial purposes and hunting, fit within FSC guidance for inclusion 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 *HCVA**.

*IFLs** that have been severely degraded by *management activities** implemented after 2017 could still 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 123,553 acres (50,000 ha), as core area. The entirety 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 intended to include the most important cultural and ecological values and be managed to limit *industrial activity**, in conformance with Indicator 9.2.4. *Core area** management strategies are expected to protect

[3] https://data.globalforestwatch.org/datasets/intact-forest-landscapes-2016

the *core area*,* which would generally include maintaining 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 native *forest* ecosystems**. Maintenance of *IFL* core areas** will necessitate identifying and addressing potential threats.

Limited *industrial activity** within *IFL* core areas** is allowed (per Indicator 9.2.4) 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 native *forest* ecosystems**.

Monitoring *IFLs**: Per Criterion 9.4, *The Organization** is expected to periodically monitor all *HCVs**. For *IFLs** this includes monitoring 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).

**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 site disturbing *management activities**. Any evidence or *documentation** that site-disturbing *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** might 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 Agency[4], 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, meet the definition of *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.

*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 ought to 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.

[4] 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.

*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, generally meet this definition of high carbon *forest**, pending new information.[5] 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 would likely need to be assessed for their carbon storage function. Management strategies to maintain or enhance this *HCV** (per Indicator 9.2.1) are expected to maintain high carbon stands' natural ability to store and sequester carbon. Harvests are expected to be limited to operations that maintain that natural ability, and not reduce on-site carbon 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 (developed to support conformance with the V1-0 FSC US Forest Management Standard). Future revisions of the US NRA will need to be aligned with this *HCV** Framework (i.e., Annex K).

*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**,

[5] 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.

archaeological or historical value compared to other sites globally, nationally, or regionally, or are of *critical** importance for *Native American** *Indigenous Peoples**.

**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. Identification and Assessment 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. For identification and assessment of HCV 1, 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 might also be HCV 1. Examples could include regionally *significant** hibernacula for bats, stop-over sites for migratory birds, or breeding areas (i.e., where a *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** might 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 Protected Areas dataset)
- NatureServe Maps of Biodiversity Hotspots & Biodiversity Importance
- Areas identified through The Nature Conservancy's (TNC) Ecoregional Assessments as having *significant** concentrations of *biodiversity**

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 is expected to 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
- Areas placed in the federal Protected Areas Database (PAD) as GAP Status 1 or GAP Status 2
- 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
- *Management units** with federally-designated "critical habitat" for a number of *species** that are federally listed as threatened or endangered
- A county or watershed identified by NatureServe as having a large number of *species** of *conservation** concern
- 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
- Regionally *significant** migratory staging areas, seasonal breeding sites, migratory corridors, and other seasonal concentrations of *species**
    - Audubon 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 *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**
    - Audubon 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 Criterion 9.2 of the Standard, *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

Examples of considerations for development of strategies to maintain HCV 1 include:: *Conservation zones**/*protection 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 will likely need to 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 might 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 are expected to have sufficient scope, detail and frequency to detect changes in the status of *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. Identification and Assessment of HCV 2*

For identification and assessment of HCV 2, 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 means 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 needs to 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, need to consider regional contexts. Generally, "large" ought to 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 has 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 can 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 will need to 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 might 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 will likely need to 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 native *forest** *ecosystems**. Examples include *conservation zones*/protection 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 will likely need to 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 might 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. Identification and Assessment HCV 3*

For identification and assessment of HCV 3, 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** ought to be considered rare, consideration is best 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 are more likely to 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** can also be assessed and identified using the following resources:

- Databases for rare, threatened, and endangered *ecosystems**
    - EnviroAtlas
    - NatureServe (*ecosystems** listed as “imperiled” or “critically imperiled” at global, national and/or state scales)
    - IUCN Red List of 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 will likely need to 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 might 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 include: 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 likely need to 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. Identification, Assessment, Management, and Monitoring of HCV 4*

Assessing areas for HCV 4 means 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 might 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 likely not reach the level of HCV 4, but if the system supplies irrigation for a substantial portion of a farming/ranching-dependent community, it most likely would.

For identification and assessment of HCV 4, 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** might also need to 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
- 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 include: 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 might include *conservation*

*zones*/protection 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 likely need to 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. Identification, Assessment, Management, and Monitoring of HCV 5*

Identification of areas with HCV 5 requires (per Criterion 9.1) engaging with *Native American** *Indigenous Peoples** 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" are best made through *engagement** with the communities or *Native American** *Indigenous Peoples**. Basic necessities in the context of HCV 5 might 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 need to 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** *Indigenous Peoples**, such as livelihoods, health, nutrition, water and other medicines.

The information provided by *local communities** and/or *Native American** *Indigenous Peoples** through *culturally appropriate** communication is the *best available information** for the *HCV** identification and assessment, as well as for developing management and monitoring approaches. This is particularly true for determining the 'fundamentality' of the resource. Where possible, management strategies need to be developed collaboratively with representatives of the *local communities** and/or *Native American** *Indigenous Peoples**. A *Free, Prior and Informed Consent** process is required (per Criterion 4.2) when a *Traditional People** or (per Criterion 3.2) when a *Native American** *Indigenous Peoples** 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 FSS, 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. Identification, Assessment, 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** *Indigenous Peoples**. 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 American** *Indigenous Peoples** for the purposes of HCV 6 (and also HCV 5) can be combined with *engagement** with communities and *Native American** *Indigenous Peoples** 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** *Indigenous Peoples** have *legal** or *customary rights**.

For identification and assessment of HCV 6, 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 identification and assessment 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 identification and assessment, and also for developing strategies for management and monitoring. Additionally, many *Native American** *Indigenous Peoples** have Tribal Historic Preservation Officers, and when available, these individuals likely need to be consulted.

The information provided by *local communities** and/or *Native American** *Indigenous Peoples** through *culturally appropriate** communication is the *best available information** for the *HCV** identification and assessment 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 likely needs to consider:

- If the *management unit** includes sites that are critical to the cultural identity of a *local community** or *Native American** *Indigenous People**, 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** are best developed collaboratively with representatives of the *local communities** and/or *Native American** *Indigenous Peoples**.

A *Free, Prior and Informed Consent** process is required (per Criterion 4.2) when *Traditional Peoples** or (per Criterion 3.2) when a *Native American** *Indigenous People** 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 FSS, 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, potentially 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.

Per the FSC Forest Management Groups Standard (FSC-STD-30-005), it is not necessary to have a separate *High Conservation Value** assessment for each member of a FSC forest management group, as long as all *management units** are covered by an assessment.

*11.b Directions for Family Forests*

*Family forests** can choose to use this checklist as their preliminary *HCV** assessment. If no *HCV** or potential *HCV** are found using this assessment, then most likely, no additional assessment is needed. If a confirmed *HCV** or a potential *HCV** is identified using this assessment, *family forests** are encouraged 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**

To use this checklist:

1. Reference the main HCV Framework to guide general understanding of what constitutes *HCVs**
2. Evaluate each information source provided below for the *family forest** *management unit**
    - National *HCV** checklist resources confirm the <u>presence</u> of an *HCV**
    - Local-scale *HCV** checklist resources indicate a <u>potential</u> *HCV**
3. Document 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**, instead they typically demonstrate potential for 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 (i.e., the *Management Unit** is found to intersect with or is proximate to potential HCV* identified through the checklist below), further assessment * using the guidance and resources in the main *HCV** Framework might 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*.

*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's Map(s) of Biodiversity Hotspots & Map(s) of Biodiversity Importance. *Family forests** are expected to access both resources.

2. *Management units** with federally-designated critical habitat for multiple *species** that are federally listed as threatened or endangered, as indicated by the USFWS Threatened & Endangered Species Active Critical Habitat Report and USFWS's IPaC Information for Planning and Consultation) project planning tool. *Family forests** are expected to access both resources.

3. A county or watershed having a globally, nationally, or regionally-significant concentration of species of conservation concern, as indicated by NatureServe's county -level maps and watershed-level maps for listed and imperiled species. *Family forests** are expected to access both resources.

4. Areas identified through The Nature Conservancy's (TNC) Ecoregional Assessment Status Tool (EAST; available via the Conservation Gateway) as having significant concentrations of biodiversity. *Family forests** ought to 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.

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, both proximity of the* Management Unit* *to potential HCV 2 and* Management Unit* *occurrence with potential HCV 2 are important considerations.* Management Units* *that are proximate to HCV 2 might 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 and/or other data that are more recent, accurate and/or refined than those provided by Global Forest Watch, are best available information* for identifying *IFL**.

2. Wilderness Areas (4.a.iv): Wilderness areas enrolled in the National Wilderness Preservation System, or a similar state-level system, generally meet the definition for HCV 2.

**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 or Pennsylvania Department of Conservation and Natural Resources
    - Heritage Programs (i.e., members of the NatureServe Network). For example, the Michigan Natural Features Inventory or the Georgia Wildlife Conservation Section
    - Regional conservation organizations. For example, Landscape Conservation Cooperatives

*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 or Louisiana Department of Energy and Natural Resources
    - State and local municipal water management departments. For example, the Marathon County Conservation, Planning, and Zoning Department in Wisconsin or the Metropolitan Water District of Southern California.

2. Access county soil surveys to assess soils vulnerable to *erosion**, including *slopes** rated as high hazard for *slope** failure, as indicated by the NRCS Web Soil Survey

3. Assess information on other *ecosystem services**, including flood control and attenuation, as indicate by the U.S. Army Corps of Engineers

*11.g 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**.

**Local-scale *HCV** Checklist Resources**

1. If *Native American* Indigenous Peoples** are identified per 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.

2. National Register of Historic Places (4.a.vi): the National Park Service's National Register of Historic Places web-based map search 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): theUnited States of America World Heritage List is available through UNESCO.

**Local-scale *HCV** Checklist Resources**

1. State-level resources, i.e., the State Historic Preservation Office

2. If *Native American* Indigenous Peoples** 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 from Annex A

*NOTE: Annex A is normative, and therefore these definitions are also.*

**Critical:** The concept of criticality or fundamentality in Principal 9 and *HCVs** relates to irreplaceability and to cases where loss or major damage to this *HCV** would cause serious prejudice or suffering to *affected stakeholders**. An *ecosystem** service is considered to be critical (HCV 4) 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 *local communities**, on the environment, on *HCVs**, or on the functioning of significant *infrastructure** (roads, dams, buildings etc.). The notion of criticality here refers to the importance and *risk** for natural resources and environmental and socio-economic values.

**High Conservation Value (HCV):** Any of the following 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**, 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 example for livelihoods, health, nutrition, water), 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**.

**High Conservation Value Areas (HCVA):** Zones and physical spaces which possess and/or are needed for the existence and maintenance of identified *High Conservation Values**.

**Landscape:** A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area.

NOTES: Ecological Sections (i.e., the so named scale within the hierarchy of the US Forest Service's ecological classification system; Cleland 2007, update of Bailey/USFS) or smaller units are recommended for use to define *landscape** for purposes of *RSA** establishment and assessment. For many other purposes, "landscapes" will often occur at smaller *scales** than Ecological Sections.

In developing the description of "landscape" *The Organization** should consider the *management unit's** ability to influence and impact the surrounding area, as well as the potential for other owners to influence and impact the area that the *management unit** falls within. Some larger *management units** may represent the full *landscape** that needs to be considered, while other typically smaller *management units** may occur within a broader *landscape** that ought to be considered.

**Precautionary approach:** An approach requiring that 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** takes explicit and effective measures to prevent the damage and avoid the *risks** to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of *environmental values** are uncertain.

**Significant:** For the purposes of Principle 9, HCVs 1, 2 and 6 there are three main forms of recognizing *significance**.

- A designation, classification or recognized *conservation** status, assigned by an international agency such as IUCN or Birdlife International;
- A designation by national or regional authorities, or by a responsible national *conservation** organization, on the basis of its concentration of *biodiversity**;
- A voluntary recognition by the manager, owner or *Organization**, on the basis of available information, or of the known or suspected presence of a *significant** *biodiversity** concentration, even when not officially designated by other agencies.

Any one of these forms will justify designation as HCVs 1, 2 and 6. Many regions of the world have received recognition for their *biodiversity** importance, measured in many different ways. Existing maps and classifications of priority areas for *biodiversity** *conservation** play an essential role in identifying the potential presence of HCVs 1, 2 and 6.

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## Annex L Climate change adaptation and forest carbon toolkit

(Guiding section)

Annex L provides guidance for conforming with climate change- and carbon sequestration and storage-associated elements of Principle 5, Principle 6, Principle 7 and Principle 8, but is not normative.

### Toolkit Introduction

This toolkit is designed to assist certificate holders but it is not normative.

While the FSC US Forest Stewardship Standard Version 2-0 (FSS) does require consideration for climate change, *The Organization** is not expected to develop its own scientific projections of climate change impacts. The FSS 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 FSS by providing:

A. A commonly accepted conceptual framework for managing *forests** to adapt to climate change
B. Guidance 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 FSS 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** has the option to 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 FSS.

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

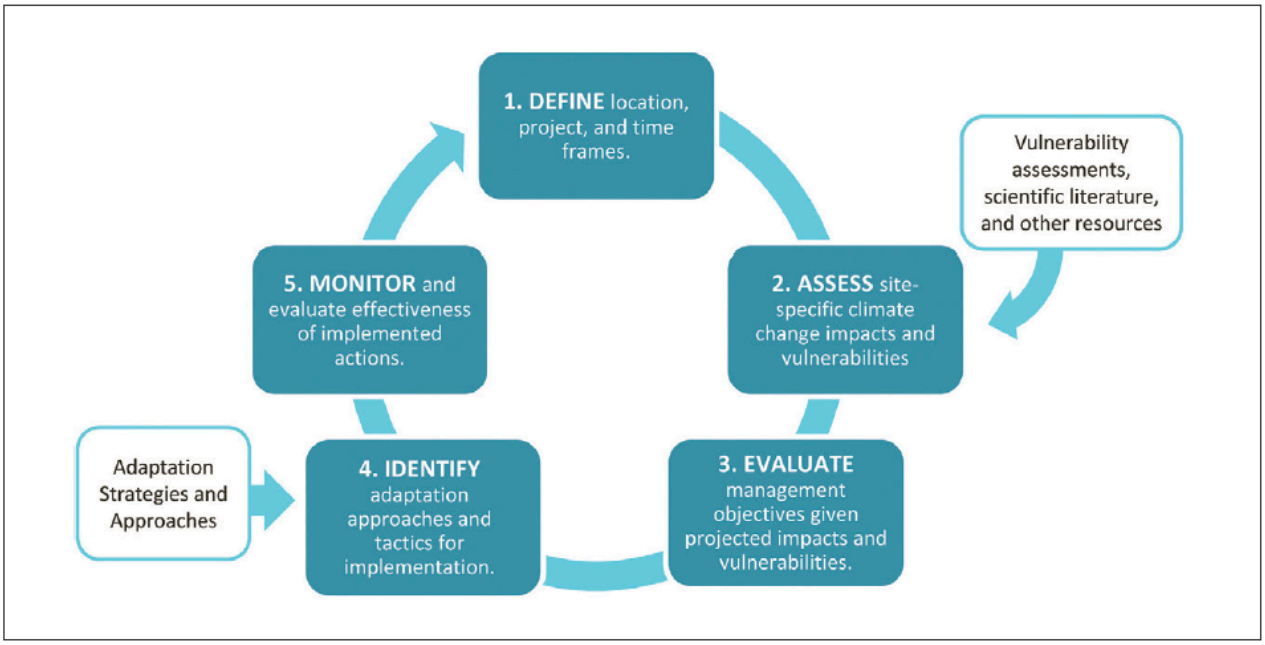


**Figure 1.** Adaptation Workbook Process. Source: Forest Adaptation Resources: Climate Change Tools and Approaches for Land Managers, 2nd Edition (Swanston et al. Ch. 5, page 75, 2016).

Below, FSS *Indicators** are cross-walked to the steps in the Adaptation Workbook process.

**Table 1.** FSC US FSS 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 6.1.1<br>Indicator 7.2.4 |
| **Step 2:** Evaluate *management objectives** 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<br>Indicator 10.2.2<br>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 6.1.1, 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** will likely need to 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 6.1.1***

Indicator 6.1.1 expects *The Organization** to not only identify *environmental values** that may be affected by *management activities**, but also assess the potential future impacts of climate change and *catastrophic natural disturbances** on these *environmental values**. This assessment will inform the evaluation that is needed for conformance with Indicator 7.2.4. The impacts of climate change are expected to vary spatially, as well as temporally, and will be influenced by future trends in temperature, precipitation regime, and frequency and intensity of natural disturbance events. Therefore, for conformance, assessments will likely need to reflect these different variables, while considering 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 potential impacts on *environmental values** resulting from the expected changes to the forest *ecosystems**?

NOTE: The assessment required for conformance with FF Indicator 6.1.1 is limited to consideration of potential future impacts of *catastrophic natural disturbances** on identified *environmental values**, and does not include the broader scope of potential future impacts of climate change. However, consideration of the above questions may help to provide a structure for the assessment that is required.

***Indicator 7.2.4 & Family Forest Indicator 7.2.1***

Critical outputs from evaluations completed for conformance with Indicator 7.2.4 (or FF Indicator 7.2.1) include: an assessment of the climate change risks and vulnerabilities associated with the *management unit** (including consideration of outcomes from the assessment per Indicator 6.1.1 or FF Indicator 6.1.1), 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 most likely need to consider the following questions:

1. What are the risks, vulnerabilities, challenges, and opportunities associated with achieving the *management unit's** current *management objectives** in a climate changed future?

   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
- higher concentrations of atmospheric carbon dioxide could increase tree growth rates.

2. What are potential *climate change adaptation strategies** to address the anticipated impact of climate change on *management objectives**? These strategies can 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 might potentially 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 is intended to help inform adjustments to future management to account for new information, conditions, and observations. The following concepts are important considerations for monitoring and evaluation:

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 do new strategies need to 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** in limited situations, including when non-local *genotypes** of *native species** are not adequate for maintaining or enhancing local diversity as part of *climate change adaptation strategies**.

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.

Considerations for whether to implement the flexibility provided in Indicator 10.2.2 include:

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. 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 (CCRC) 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 for integrating Adaptation Planning into *The Organization's** management planning process.
4. The Climate Smart Conservation guide led by the National Wildlife Federation, breaks adaptation planning into discrete, manageable steps.
5. The Adaptation for Conservation Targets (ACT) Framework 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.

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).
8. USDA Regional Climate Hubs provide national and regional information about impacts and adaptation to climate change.
9. Vulnerability assessments across the nation, such as those identified by the US Forest Service.

## 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**); and Federal Lands Supplementary Requirements for Indicators 6.1.4 and 7.1.2. Additionally, requirements throughout the standard, particularly related to management planning, harvest and regeneration, also provide benefits related to both *forest** and *soil** carbon.

Managing for *forest** carbon sequestration and storage, like other non-extractive *ecosystem services** (e.g., recreation), might 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. USDA Climate Change Resource Center tools: “carbon” search results

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## Annex M Supplementary requirements for federal lands in the United States

(Normative section)

The Federal Lands Supplementary Requirements included in this annex are normative elements of this standard.

### 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. However, as with all other land, the decision to become FSC-certified is voluntary, and is to be taken at the discretion of the responsible federal agency. 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 by following the FSC US Federal Lands Policy. Additionally, any federal *management units** that are administered by a federal agency not listed above, but that are within scope of a valid FSC certificate at the effective date of this Standard, are eligible to remain certified. ***For federal lands to be certified, the applicable federal agency (if in scope for certification) must conform to these supplemental requirements in addition to the other normative elements of this standard (e.g., Indicators in Principles 1-10, glossary).*** The supplementary requirements in this annex 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 is expected to 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 USDA Forest Service (USFS; National Forests), the US Department of Defense (DOD), and the US Department of Energy (DOE) lands, in addition to any other federal *management units** FSC-certified at the effective date of this Standard.

**Applicability**

All elements of this Annex are considered normative additions to the Standard and are required to be evaluated by the *Certification Body** when judging conformance to any requirement in the Standard, with the exception of applicability, intent and guidance notes.

In some cases, 'supplements' to existing *Indicators**, Guidance, or Intent Notes 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 Forest Stewardship Standard. Where there are supplements, federal land conformity assessments (certification audits) are to consider conformance with both the original text of the main *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 annex 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 any federal *management units** that are administered by a federal agency not listed here, but that are within scope of a valid FSC certificate at the effective date of this Standard . 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 annex 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**' will be a "National Forest" for lands managed by the USDA Forest 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) may not 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 main *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 note 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 note that corresponds to the referenced indicator and that is applicable to federal lands, but not to non-federal lands.

**Supplementary Requirements**

**Federal Lands Supplement to Indicator 1.3.2** Active legal challenges over management policies and actions are disclosed in the audit process to the extent allowed by courts of law.

Federal Lands Guidance for **Indicator 1.3.2**: 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 1.3.2**: Ongoing legal challenges over management, including pre-decisional objections, administrative appeals, lawsuits, and judicial reviews, could be indications of potential non-conformance with the Standard, and therefore will likely be examined during audits; 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.

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.

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.

**Federal Lands Supplement1 to Indicator 1.6.3** Information on the process 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 1.6.3** 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 Intent for **Indicator 1.6.3**: Compensation and any mitigation measures are intended to be determined with consideration of any applicable administrative or judicial ruling consistent with federal government claims processes.

**Federal Lands Supplement to Indicator 1.8.1** The policy statement is endorsed by the chief administrator at the national level of the applicable federal agency.

**Federal Lands Supplement to Indicator 2.3.1** *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.

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

**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*.*

**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**.

Federal Lands Guidance for **Federal Lands Supplement to Indicator 4.5.1**: “Hazardous materials” as referenced in this supplementary requirement do not refer to hazardous materials normally associated with *forest** management (i.e., waste materials addressed per Criterion 10.12), but instead refer to industrial waste such as that which may be found on lands that have a history of use for military and energy generation functions.

Federal Lands Intent for **PRINCIPLE 5**: Management is intended to contribute to social, economic, and ecological conditions in the *management unit** and the broader landscape.

Federal Lands Guidance for **PRINCIPLE 5**: Examples of potential contributions 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.

**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.

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.

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.

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.

Federal Lands Intent for **PRINCIPLE 6**: For the *management unit**, ecological sustainability is a core responsibility.

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.

**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:

a. threats to *species** persistence and their ability to persist within the *management unit** and in the *landscape**,

b. 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

c. 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.

Federal Lands Guidance for **Federal Lands Supplement3 to Indicator 6.1.1**: “Hazardous materials” as referenced in this supplementary requirement do not refer to hazardous materials normally associated with *forest** management (i.e., waste materials addressed per Criterion 10.12), but instead refer to industrial waste such as that which may be found on lands that have a history of use for military and energy generation functions.

**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.

**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.

**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**.

Federal Lands Guidance for **Indicator 6.4.2**: For conformance, *The Organization** will potentially be asked to demonstrate how the mitigation measures (e.g., those required from US Fish & Wildlife Service Endangered Species Act Section 7 consultation) are achieving the expectations of Indicator 6.4.2.

**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**.

**Federal Lands Supplement1 to Indicator 6.5.2** *The Organization** 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**.

Federal Lands Intent for **Federal Lands Supplement1 to Indicator 6.5.2:** Federal lands play a critical role in protecting and restoring *native ecosystems**. It is therefore intended that the *management unit** maintains and/or expands 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**.

**Federal Lands Supplement2 to Indicator 6.5.2** *The Organization** may not designate *Representative Sample Areas** outside of the *management unit**.

**Federal Lands Supplement to Indicator 6.5.7** *The Organization** may not designate areas outside of the *management unit** as part of the *conservation areas network**.

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

**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 if removal of *legacy trees** is a critical component of achieving ecological objectives, the downed trees are left on-site if ecologically appropriate.

**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.

**Federal Lands Supplement1 to Indicator 6.7.5** 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 6.7.5** 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.

Federal Lands Intent for **Federal Lands Supplement1 to Indicator 6.7.5**: “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.

Federal Lands Guidance for **Federal Lands Supplement2 to Indicator 6.7.5**: “Hazardous materials” as referenced in this supplementary requirement do not refer to hazardous materials normally associated with *forest** management (i.e., waste materials addressed per Criterion 10.12), but instead refer to industrial waste such as that which may be found on lands that have a history of use for military and energy generation functions.

**Federal Lands Supplement1 to indicator 6.7.7** 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 6.7.7** The applicable federal agency monitors the impacts of grazing on the *environmental values** identified per Indicator 6.1.1.

**Federal Lands Indicator 6.7.8** 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 6.7.9** 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 6.7.10** 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 ).

**Federal Lands Supplement1 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.

**Federal Lands Supplement2 to Indicator 6.8.1** Federal *management units** that meet the criteria for *family forest** *management units** may conform with FF Indicator 6.8.1 instead of main *Indicator** 6.8.1 and Federal Lands Supplement1 to Indicator 6.8.1.

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

**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 public 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.

**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.

**Federal Lands Supplement to Indicator 7.2.14** If the *management unit** contains *plantations** maintained on *soils** which historically supported *natural forests**, then the *management plan** includes a strategy and implementation plan for restoring the *plantations** to *natural forest** (including *semi-natural forest**) per PL Indicator 6.6.11.

Federal Lands Intent for **Indicator 7.4.1**: The management plan is intended to be maintained in accordance with the applicable federal agency's guidelines.

**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** A written engagement strategy is developed and implemented, and includes methods for *engaging** diverse audiences, including *Native American** *Indigenous Peoples**, youth, low-income and underrepresented communities, and local, regional and national audiences.

**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.

Federal Lands Applicability for **Federal Lands Indicator 7.6.6**: This indicator applies to both initial certification and re-certification.

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 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:

1) provision of *forest**-related employment and contracting opportunities (see also Indicator 7.2.12),

2) indices of contractor and subcontractor compliance with applicable labor laws, and

3) managed public access to, and use of, the *forest** for recreation and other permitted activities (see also Indicator 7.2.12).

Federal Lands Guidance for **Federal Lands Supplement2 to Indicator 8.2.1:** Monitoring for item (2) might 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.*

**Federal Lands Indicator 8.2.4** Monitoring includes the effectiveness of *restoration** strategies per the following indicators and supplementary requirements:

1) Federal Lands Supplement to Indicator 6.4.3
2) Indicator 6.5.2
3) Indicator 6.5.3
4) Indicator 6.6.1
5) Indicator 6.6.2
6) Indicator 6.6.3
7) Indicator 6.7.1
8) Indicator 6.7.5
9) Federal Lands Indicator 6.7.9
10) Indicator 6.8.1 and the Federal Lands Supplements to Indicator 6.8.1
11) Federal Lands Supplement to Indicator 7.2.6, and
12) Federal Lands Supplement1 to Indicator 10.5.1.

**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.

Federal Lands Guidance for **Principle 9**: As the 'public' for federal lands is nationwide in scope, consultation and engagement with stakeholders is intended to be nationwide in scope. Therefore, stakeholder consultation and/or engagement associated with Principle 9 indicators is will most likely need to involve stakeholders beyond those located in proximity to the *management unit**.

**Federal Lands Supplement to Indicator 9.1.1** The applicable federal agency solicits and considers public comments on the *High Conservation Value** assessment methodology.

**Federal Lands Supplement to Indicator 9.2.4** The entirety of each *Intact Forest Landscape** is designated as *core area**.

**Federal Lands Supplement1 to Indicator 10.5.1** When implementing *restoration harvests**, *The Organization** 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 Organization** 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).

**Federal Lands Supplement to Indicator 10.9.1** *The Organization**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.

**Federal Lands Supplement1 to Indicator 10.10.1** 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 10.10.1** 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 for **Federal Lands Supplement2 to Indicator 10.10.1**: "Road reclamation" is a process that focuses on returning the disturbed lands to a use that is consistent with *long-term* management objectives**.

**Federal Lands Supplement to Indicator 10.10.2** 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.

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