

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

Draft 1.0-V2-2020

Principles 1–10 Federal Lands Supplementary Requirements
including Annex A: Glossary

Prepared for the First Consultation
April 6, 2021

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

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

CONSULTATION QUESTIONS:

- Do any of the proposed Federal Lands Supplementary Requirements fail to adequately address the special/unique issues associated with federal ownership?
- Is conformance with any of the proposed Federal Lands Supplementary Requirements infeasible for existing or potential Federal management units?
- Are there any additional base indicators where Federal Lands Supplementary Requirements are needed to address the special/unique issues associated with federal ownership?
- Are there any base indicators that do not currently have proposed Federal Lands Supplementary Requirements that are not feasible for existing or potential Federal management units?

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

Background

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

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

These supplementary requirements were developed with a commitment to advancing a shared perspective of what certification of Federal lands should require. Central is the explicit recognition that commercial timber harvest takes place within the context of current law and the

broader range of environmental, social and economic values and benefits provided by Federal lands.

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

Eligibility for Certification

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

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

CONSULTATION QUESTION: The FSC US Federal Lands Policy has two conditions that must be met before the lands administered by a particular Federal agency become eligible for FSC certification:

1. The agency demonstrates it is a willing landowner to participate in the certification process.
2. The existence of national-level indicators that address the special resource management, legal, technical, procedural, and governance issues associated with federal ownership.

The Standard Development Group believes that the Draft 1 Federal Land Supplementary Requirements address Condition #2 for all Federal agencies. **Do you agree with this assertion? If not, which issues are not adequately addressed, and for which Federal agency(ies) are they not adequately addressed?**

Applicability

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

In some cases, 'supplements' to existing *Indicators**, Guidance, or Intent Statements have been elaborated. This is in an effort to simplify the interpretation, with the understanding that this Annex must be used alongside the FSC US National Forest Stewardship Standard. Where

there are supplements, Federal land conformity assessments (certification audits) are to consider conformance with both the original text of the base *Indicator** (found in the body of the Standard) as well as the supplement to that *Indicator** (found in this Annex). See also ‘Terminology’ section, below.

CONSULTATION QUESTIONS: The SDG believes that Federal lands do not represent a similar risk profile as the small landowners and other low intensity managed forests that are the intended users of the Family Forest Indicators. Therefore, the SDG is proposing that Federal lands be considered ineligible for the Family Forest Indicators. However, the SDG believes that even small Federal management units have similar conditions as other federal lands, including ownership, history, mandate, and special resource management objectives, that the Federal Lands Supplementary Requirements are intended to address. Therefore, the SDG is also proposing that all Federal management units, regardless of size, be required to conform with all Federal Lands Supplementary Requirements. However, the SDG would like to receive feedback on these proposals.

- **Are there specific Family Forest Indicators for which small Federal management units should be eligible?**
- **Are there specific Federal Lands Supplementary Requirements with which conformance will be infeasible for small Federal management units and exemptions should be considered?**
- **Should eligibility for the above specific Family Forest Indicators, and/or exemptions for the above Federal Lands Supplementary Requirements differ depending on the administering Federal agency or on the principle management objectives for the management unit (i.e., limited to conservation objectives vs. multiple use objectives vs. other objectives)?**

[Note that similar questions, but limited to only regarding Family Forest Indicators, are included in the Family Forest Indicators consultation, and duplicate feedback does not need to be provided in both consultations.]

Scope

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

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

Landscape (Existing USFS Guidance for USFS Indicator 6.1.1): “Landscape level” refers to a spatial scale larger and/or more inclusive than the federal lands comprising the *Management*

*Unit**. Other federal, state and private lands may be interspersed within or neighboring the boundaries of the lands comprising the *Management Unit**.

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

Public (*Existing USFS Guidance for Indicator 4.4.d*): For Federal agencies, the 'public' is nationwide in scope and therefore consultations involving *interested stakeholders** are not limited to those entities located in proximity to the *Management Unit**.

Terminology

Throughout this Annex , the following terms are used:

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

PRINCIPLE 1: COMPLIANCE WITH LAWS

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

NOTE: Federal lands supplementary requirements are proposed for Indicators 1.3.1, 1.6.2, and 1.8.1. Additionally, Federal lands-specific guidance or applicability language is proposed for Indicators 1.4.1 and 1.4.2.

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

Indicator 1.1.1 *Legal registration to carry out all activities within the scope of the certificate is documented.**

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

Indicator 1.2.1 *The Organization** has evidence of *long-term* rights** to use and manage the *Management Unit** for the purposes described in the *management plan**.

Guidance: "Evidence of *long-term* rights**" may include but is not limited to: deeds; *long-term** lease agreements; evidence of fee ownership; or a contractual agreement to manage the *forest**.

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

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

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

Guidance: Boundary designations do not necessarily have to be comprehensive, but must be adequate to assure that *management activities** are implemented where intended. If the boundary cannot be established, then the manager shall postpone management until the boundaries are established and marked either by *legal** survey or by mutual agreement with the adjacent property owner (see also Criterion 1.4 .

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

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

Indicator 1.3.1 The *management plan** and *management activities** demonstrate compliance with all *applicable laws**, including *national laws** and *local laws**.

Federal Lands Supplement to Indicator 1.3.1 (*Existing USFS Indicator 1.1.1*) Active legal challenges over management policies and actions are disclosed in the audit process to the extent allowed by courts of law.

Guidance: The *management plan** or other documents provided to the CB should include a list of the key laws and administrative requirements that typically apply to management operations and a list of contact information for agencies that are responsible for local enforcement.

Federal Lands Guidance for **Indicator 1.3.1** (*Existing USFS Guidance for Indicator 1.1.a*): Examples of applicable laws and regulations are found in Annex C and the applicable Federal agency's manuals and handbooks and in the federal register. Federal law takes precedence over all other laws (i.e., supremacy clause). These include the Federal Land Policy and Management Act (FLPMA), the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA) and the USDA Forest Service 2012 Planning Rule.

Federal Lands Guidance for **Federal Lands Supplement to Indicator 1.3.1** (*Existing USFS Guidance for USFS Indicator 1.1.1*): Ongoing legal challenges over management, including pre-decisional objections, administrative appeals, lawsuits, and judicial reviews, are examined during the certification process as they may be indications of non-conformance with the Standard; however, they do not alone constitute nonconformance (see also Criterion 1.6). However, *Certification Bodies** are not expected to interpret laws or regulations, this is the responsibility of the court system.

Indicator 1.3.2 Situations in which compliance with *applicable laws** or regulations conflicts with compliance with FSC *Principles**, *Criteria**, or *Indicators** are documented and referred to the *Certification Body**.

Indicator 1.3.3 *The Organization** has evidence that all applicable and legally prescribed fees, royalties, taxes, and other charges are being paid in a timely manner. If payment is beyond the control of *The Organization**, then there is evidence that every attempt at payment was made.

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

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

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

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

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

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

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

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

Federal Lands Applicability for **Indicator 1.4.1** (*Existing USFS Applicability for Indicator 1.5.a*): *The Organization** is expected to play a law enforcement role as mandated by applicable rules, orders and regulations.

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

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

Where protection is the responsibility of regulatory bodies, *The Organization** cooperates with the applicable entity to identify, report, control, and discourage unauthorized or illegal activities. No *legal** action may be appropriate if the proper authorities have been notified and *The Organization** demonstrates that *legal** action may have negative consequences that outweigh its benefit, or if *legal** action is not possible.

Federal Lands Guidance for **Indicator 1.4.2** (*Existing USFS Guidance for Indicator 1.5.b*): Examples of such strategies include: deploying law enforcement; establishing and enforcing unauthorized use policies; taking measures to inform unauthorized users about closures; engaging in effective outreach and communications with user groups; and, fostering collaborative efforts with organizations that promote ecologically, economically and socially responsible public use.

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

Applicability: Additional international agreements are also applicable.

Indicator 1.5.1 The *management plan** and management activities* comply with relevant provisions of all applicable *national laws** and international laws and binding international agreements relating to the transportation and trade of *forest** products (e.g., Lacey Act, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), other international conventions).

Guidance: *The Organization** may demonstrate compliance by maintaining a list of applicable binding international agreements and completing an assessment to confirm compliance. A list of relevant laws, treaties, and agreements can be found in Annex C . An international agreement is considered “binding” when the US has formally signed the agreement.

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

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

*Complaints**, more generally, are not specifically addressed in either the *Indicators** of Criterion 1.6 or Annex D. In this Standard, however, *complaints** may naturally evolve to a

*dispute** when initial attempts to resolve a *complaint** have been unsuccessful.

This framework is intended to provide parties with an avenue to manage *dispute** resolution in *good faith** and outside of court. However, if *good faith** is exhausted and the parties have not agreed on a resolution, *The Organization's** responsibility ends. The party bringing the *dispute** may: 1) discontinue their pursuit of the *dispute**; 2) address the *dispute** to *The Organization's* Certification Body** (if the *dispute** pertains to conformance with FSC Standards); 3) address the *dispute** to FSC International per FSC-PRO-01-008, *Processing Complaints in the FSC Certification Scheme* (if the *dispute** pertains to the FSC system); or 4) seek resolution through the court system (if the *dispute** pertains to a *legal** issue).

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

- a. *applicable laws** (Criterion 1.6);
- b. *disputes** from *workers** (Criterion 2.6); and
- c. impact of *management activities** on affected *local communities**, other *affected stakeholders**, and *Native American groups** (Criterion 4.6 and Criterion 3.2)

Indicator 1.6.2 A *publicly available* dispute** resolution process that can be adapted through *culturally appropriate* engagement** is in place, and this process is used to resolve *disputes** that can be settled out of court in a timely manner. This process also identifies mechanisms to address *disputes of substantial magnitude**, including provisions for ceasing operations. (Criterion 1.6, Criterion 3.2, and Criterion 4.6)

Federal Lands Supplement1 to Indicator 1.6.2 (*Existing USFS Indicator 1.1.3*) Information on the system for resolving *disputes* is readily available to interested local, regional and national stakeholders.

Federal Lands Supplement2 to Indicator 1.6.2 (*Existing USFS Indicator 1.1.2*) For *disputes* that have led to legal challenges, *The Organization** demonstrates that it has been or is actively engaged with stakeholders in an attempt to resolve the *dispute*, unless this engagement is legally prohibited.

Federal Lands Guidance for **Indicator 1.6.2** (*Existing USFS Guidance for Indicator 4.5.c*): Compensation and mitigation measures are determined by administrative or judicial ruling consistent with federal government claims processes.

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

- a. steps taken to resolve *disputes**;
- b. outcomes of *dispute** resolution processes, including, where applicable,
 - i. *fair compensation** to *workers** for loss or damage to property, *occupational diseases**, or *occupational injuries** sustained while working for *The Organization** (Criterion 2.6) and

- ii. *fair compensation** to *local communities**, individuals, and *Native American** groups (Criterion 4.6 and Criterion 3.2); and
- c. unresolved *disputes** and the reason(s) they are not resolved.

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

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

Applicability: The additional requirements of this <i>Criterion*</i> are addressed through Indicator 1.3.1.

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

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

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

Federal Lands Supplement to Indicator 1.8.1 (*Existing USFS Supplement to Indicator 1.6.a*)
The statement of long-term commitment is endorsed by the chief administrator at the administrative unit level of the applicable Federal agency.

Indicator 1.8.2 If *The Organization** does not certify their entire holdings, then they document, in brief, the reasons for seeking partial certification, referencing FSC-POL-20-002 (or subsequent policy revisions), the location of other managed *forest** units, the natural resources found on the holdings being excluded from certification, and the *management activities** planned for the holdings being excluded from certification.

Applicability: All landowners are encouraged to certify their entire operation, however they are not required to do so. See FSC-POL-20-003, FSC-POL-20-002, and other FSC policy documents for additional guidelines for partial certification.

Indicator 1.8.3 *The Organization** notifies the *Certification Body** of significant changes in ownership and/or significant changes in management planning within 90 days of such change.

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

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

PRINCIPLE 2: WORKERS* RIGHTS AND EMPLOYMENT CONDITIONS

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

NOTE: Federal lands supplementary requirements are proposed for Indicators 2.3.1 and 2.4.1.

Intent: *Indicators** in Principle 2 are applicable to all *workers** unless specifically indicated otherwise (i.e., use of “employee”). If the term *worker** or employee is not used in *Indicator** language, intent is provided following the *Criterion** or *Indicator** in question.

“*Workers**” are defined as “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 subcontractors.”

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

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

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

Intent:

- *The Organization** does not employ *workers** below the age of 15, or below the *minimum age** as stated under *national laws** or *local laws** or regulations, whichever age is higher, except as specified in the following bullets.
- In countries where the *national law** or regulations permit the employment of persons between the ages of 13 and 15 years in *light work**, such employment should not interfere with schooling nor be harmful to their health or development. Notably, where children are subject to compulsory education laws, they work only outside of school hours during normal daytime working hours.
- No person under the age of 18 is employed in *hazardous** or *heavy work** except for the purpose of training within approved *national laws** and regulation.
- *The Organization** prohibits the *worst forms of child labor**.

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

Intent:

- Employment relationships are voluntary and based on mutual consent, without threat of a penalty.
- There is no evidence of any practices indicative of *forced or compulsory labor**, including but not limited to the following:
 - 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

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

Intent: *Employment and occupation** practices are non-discriminatory.

Guidance: Per the definition of the term, "*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, or gender identity, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation; and
- b. such other distinction, exclusion, or preference that has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation as may be

determined by the individual concerned after consultation with representative employers' and *workers' organizations** where such exist, and with other appropriate bodies.

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

Intent:

- *Workers** are able to establish or join *worker organizations** of their own choosing.
- *The Organization** respects 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, and does not discriminate or punish *workers** for exercising these rights.
- *The Organization** negotiates with lawfully established *workers' organizations** and/or duly selected representatives in *good faith** and with the best efforts to reach a *collective bargaining** agreement.
- *Collective bargaining** agreements are implemented where they exist.

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

Intent: The indicators of Criterion 2.2 apply to the employees of *The Organization**.

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

Guidance: Promotion of *gender equality** includes ensuring that training opportunities, contracts, processes of *engagement**, and *management activities** are equally available to people of all gender identities, and encouraging people of less represented gender identities to participate and take advantage of the programs available.

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

Indicator 2.2.3 Systems are implemented that encourage and support active participation of people of all gender identities in all levels of employment and decision-making.

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

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

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

Indicator 2.3.1 *The Organization** meets or exceeds all applicable *national laws** and *local laws** and/or regulations covering health and safety of *workers** (per Annex C).

Federal Lands Supplement to Indicator 2.3.1 (*Existing USFS Supplement2 to Indicator 4.2.a*) Procedures are developed and implemented for monitoring safe working conditions, and include procedures for interviewing workers in a non-threatening environment (for example, away from supervisors), and using a language they understand.

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

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

Indicator 2.3.3 Contracts and other written agreements include safety requirements for *workers**.

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

Indicator 2.4.1 Employee compensation meets or exceeds the prevailing *local** norms within the forestry industry.

Federal Lands Supplement to Indicator 2.4.1 (*Existing USFS Supplement to Indicator 4.1.a*)

This requirement applies to all *workers** covered under a legal contract or agreement pertinent to *management activities** on the *Management Unit**, unless expressly prohibited by applicable laws.

CONSULTATION QUESTION: As with many of the base indicators that address workers' rights and well-being, the Standard Development Group identified a concern with Federal Lands Supplement to Indicator 2.4.1 that is not completely resolved in this Draft 1 of the Federal Lands Supplementary Requirements. This concern will be addressed through the ongoing Forest Workers Forum process, and responses to the following consultation question. **Do you have suggestions for alternate language for this supplementary requirement that would address the intent of working toward fair compensation for employees of contractors and sub-contractors and that would be feasible for conformance by federal agencies?**

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

Federal Lands Applicability for **Federal Lands Supplement to Indicator 2.4.1** (*New*): This supplementary requirement applies to both contractor or sub-contractors and any individuals employed by the contractor or sub-contractor.

Indicator 2.4.2 Employee wages, employee salaries, and contracts are paid on time.

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

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

Guidance: Adequate training and supervision measures may include but are not limited to:

- employers actively train employees in the goals and requirements of this and other applicable FSC Standards;
- loggers and other operators participate in informal and formal training, such as Forest Industry Safety Training Alliance, Game of Logging, and similar programs;
- professional foresters and resource managers meet continuing education standards,

- such as Society of American Foresters “Certified Forester” program;
- foresters, loggers, and other relevant employees are trained to understand *riparian management zone**, *rare, threatened, and endangered species**, and *High Conservation Value** protection requirements for the *forest**, as well as safeguards relating to *chemical pesticide** applications;
- field personnel are provided with written harvest plans and/or maps that clearly guide actions required to implement the *management plan**; and
- meetings occur as needed to review operations and make any necessary adjustments.

Regardless of the training and supervision measures taken, *The Organization** maintains up-to-date training records for all relevant *workers**.

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

Intent: Annex D provides background on the framework of the *dispute** management system employed in this Standard and provides guidance for *Organizations**. *The Organization** addresses the indicators of Criterion 1.6 to ensure that *disputes** from *workers** are received and addressed.

While this *Criterion** applies to *worker* disputes** while working on the *Management Unit**, it is recognized that *The Organization** has limited capacity in managing and implementing *dispute** resolution processes where *The Organization** is not directly involved in the *dispute** (e.g., a *dispute** between a contractor and subcontractor operating on the *Management Unit**).

In some cases, *disputes** may exist between a *worker** and their employer where the employer is not *The Organization**. In these cases, the requirements of the *Criterion** are still applicable, but the approach for demonstrating conformance may be different.

Indicator 2.6.1 *Workers** are covered by *worker’s* compensation*, in accordance with *national laws** and *local laws** and regulations. In states where *worker’s* compensation* programs are not compulsory, this coverage is voluntarily provided by the employer of the *workers**. Where *applicable laws** exempt *forest* workers** from coverage, *The Organization** has other mechanisms for providing *fair compensation** to *workers** for losses or injuries sustained on the job.

Intent: Not all states require *The Organization** to maintain *worker’s* compensation* insurance and some states have exemptions that may exclude *forest* workers** from coverage. This

*Indicator** is intended to address both states that do require coverage for *forest* workers** and those that do not.

PRINCIPLE 3: INDIGENOUS PEOPLES’* RIGHTS*

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

NOTE: A Federal lands supplementary requirement is proposed for Indicator 3.2.2.

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

Indicator 3.1.1 *The Organization** identifies *Native American** groups that may be affected by *management activities** on the *Management Unit**. This assessment should be revisited as part of the review of *management plans**.

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

Indicator 3.1.2 Per Annex F, *The Organization** identifies and documents *legal** and/or *customary rights**, including contested *rights**, applicable to the *Management Unit** that are held by the *Native American** groups identified per Indicator 3.1.1 and confirms them through *culturally appropriate* engagement** with these *Native American** groups.

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

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

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

Intent: The purpose of the *Indicator** is to ensure proactive engagement with *Native American** groups 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** groups that may be affected by *management activities** and is not limited to only those groups with *legal** or *customary rights**.

Indicator 3.2.2 Per Annex F, when *management activities** may affect *rights** identified per Indicator 3.1.2, *The Organization** *engages** through *culturally appropriate** means in a *Free, Prior, and Informed Consent** process with the *Native American** groups and does not implement the *management activities** until consent has been received from the *rightsholder**. If the *rightsholder** does not wish to *engage** in a *Free, Prior, and Informed Consent** process, *The Organization** ensures that the *rights** in question are not violated.

Federal Lands Supplement to Indicator 3.2.2 (*Existing USFS Supplement2 to Indicator 3.2.a*) Pertinent staff of the applicable Federal agency demonstrate knowledge and/or successful implementation of tribal consultation methods and building relationships with *Native American** groups.

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

Indicator 3.2.4 Where consent has not yet been received from the *rightsholder**, *The Organization** and the *rightsholder** are *engaged** in a mutually agreed-upon *Free, Prior, and Informed Consent** process that is advancing in *good faith** and with which the *rightsholder** is satisfied.

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

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

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

Indicator 3.3.1 When *Free, Prior, and Informed Consent** is granted by a *Native American** group, it is documented in writing.

Indicator 3.3.2 When *Free, Prior, and Informed Consent** is granted by a *Native American** group, the group is provided with an opportunity to monitor *The Organization's** compliance.

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

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

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

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

Intent: The intent of the *Indicators** in this *Criterion** is to (per Indicator 3.5.1) proactively identify sites of special significance for which *Native American** groups 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 an impact on the sites. However, if/when *management activities** are planned that may affect these sites, per Indicator 3.2.2, *The Organization** must *engage** in a *Free, Prior, and Informed Consent** process with the *Native American** group that holds the *rights** and may not implement the *management activities** until consent has been received from that group.

Applicability: These *Indicators** only apply to sites for which *Native American** groups hold *legal** and/or *customary rights**. Engagement with *Native American** groups regarding protection of significant sites for which they do not hold *legal** or *customary rights** is addressed through Indicator 3.1.1, Indicator 3.2.1, and Principle 9 (i.e., HCV 6).

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

Applicability: In regions where there are no established *tribal** representatives, this *Criterion** may be inapplicable and the landowner or manager should provide documentation to this effect.

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

Direct, *culturally appropriate** consultation with *tribal** representatives is the first preferred method of consultation. If this is not possible then regional databases or references that contain relevant data may be used to compile this information.

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

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

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

The confidentiality of sensitive *tribal** knowledge is maintained in keeping with *applicable laws** or at the behest of *tribal** representatives. If necessary, public summaries of *management plans** may omit detailed location and identification data pertaining to sensitive resources.

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

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

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

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

PRINCIPLE 4: COMMUNITY RELATIONS

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

NOTE: Federal lands supplementary requirements are proposed for Indicators 4.4.1 and 4.5.1.

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

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

If no *rights** are identified per Indicator 4.1.1, conformance with Indicator 4.2.1 is not required.

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

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

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

C4.2 *The Organization shall recognize and *uphold** the *legal** and *customary rights** of *local communities** to maintain control over management activities within or related to the *Management Unit** to the extent necessary to protect their *rights**, resources, *lands*,**

and territories*. Delegation by **local communities*** of control over management activities to third parties requires **Free, Prior, and Informed Consent***. (C2.2 P&C V4)

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

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

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

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

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

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

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

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

Federal Lands Supplement to Indicator 4.4.1 (*Existing USFS Supplement to Indicator 4.1.g*) For *Management Units** within which forest harvests occur, the applicable Federal agency also

participates in forest management-related trainings in efforts to develop a skilled workforce within the *local communities**.

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

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

Indicator 4.5.1 Through *culturally appropriate* engagement** with *local communities**, measures are implemented to identify, avoid, and mitigate significant negative social and environmental impacts of *management activities**. Items to be addressed include:

- a. archeological sites and sites of cultural, historical, and *local community** significance (on and off the *Management Unit**);
- b. environmental resources, including air, water, and food (hunting, fishing, collecting); and
- c. aesthetics

Federal Lands Supplement to Indicator 4.5.1 (*Based on existing DOD/DOE Supplement3 to Criterion 4.4*) For *Management Units** that have a history of use and/or disposal of hazardous materials, munitions, and/or other military or industrial activities, items to be addressed also include negative effects to local communities that might accrue from these activities.

Intent: Environmental impacts evaluated are not intended to be redundant to other parts of the Standard such as the Principle 6 *Indicators**. Rather, evaluation is intended to address the direct impact on communities. Examples include the impact on air quality within a community when an *Organization** conducts controlled burns or alters viewsheds important to a community. The focus is on human/community impacts as compared to the ecological impacts, which are addressed in other parts of the Standard.

Indicator 4.5.2 Through *culturally appropriate* engagement** with *local communities**, measures are implemented to identify, avoid, and mitigate significant negative economic impacts of *management activities**. Items to be addressed include:

- a. community goals for *forest** and natural resource use and protection such as employment, education, subsistence, recreation, and health; and

- b. community economic opportunities

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

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

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

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

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

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

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

PRINCIPLE 5: BENEFITS FROM THE FOREST*

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

NOTE: A Federal lands supplementary requirement is proposed for Indicator 5.5.1. Additionally, Federal lands-specific guidance, intent or applicability language is proposed for Indicators 5.4.3, 5.5.1, and 5.5.2, and for Principle 5, Criterion 5.2, and Criterion 5.5.

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

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

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

Federal Lands Supplement1 to Indicator 5.1.1 (*Existing USFS Supplement to Indicator 5.4.a*) 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 (*Existing USFS Supplement to Indicator 5.4.b*) The applicable Federal agency takes a leadership role in the community by using the assessment in Federal Lands Supplement1 to Indicator 5.1.1. to enhance the local economy.

Indicator 5.1.2 Consistent with *management objectives**, *The Organization** strives to diversify the economic use of the *forest** according to Indicator 5.1.1 .

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

Intent: Economic diversification is expected to be evaluated in terms of its ecological impacts and not impede maintaining *forest** composition, structure, function, and other requirements present in this Standard. Developing new markets should also be consistent with *management objectives**.

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

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

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

Federal Lands Intent for **Criterion 5.2** (*Existing USFS Intent for Criterion 5.6*): This FSC Standard does not mandate the harvest of forest products. Forest management is a tool for achieving larger scale environmental, economic, and social objectives/services on the *Management Unit**.

Indicator 5.2.1 In *Management Units** where products are being harvested, *The Organization** calculates the *sustained yield harvest level** for each sustained yield *planning unit**, and provides clear rationale for determining the size and layout of the *planning unit**. The *sustained yield harvest level** calculation is documented in the *management plan**.

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

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

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

Intent: The term “*sustained yield harvest level*” refers to 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.

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

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

Indicator 5.2.2 Average annual harvest levels, over rolling periods equal to the duration of the management planning period (per Indicator 7.4.1), are recorded and do not exceed the calculated *sustained yield harvest level**.

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

Indicator 5.2.3 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**.

Indicator 5.2.4 For commercial harvest of *non-timber forest products** (i.e., NTFP), *The Organization** calculates and does not exceed a *sustained yield harvest level**. This harvest level is based on *Best Available Information**.

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

Indicator 5.3.1 Using *Best Available Information**, benefits and costs related to social, economic, and environmental impacts of *management activities** (i.e., *externalities**), including the costs of preventing and mitigating negative impacts, are estimated.

Intent: The *Organization** should estimate *externalities**, to the best of their ability, to help them understand the impacts (both positive and negative) of their *management activities**, and incorporate this information into the *management plan** per Indicator 7.2.19.

Guidance: *Externalities** are a side effect or consequence of an industrial or commercial activity that affects other parties without this being reflected in the cost of the goods or services involved. A positive example is improved deer habitat and deer hunting opportunities that result from *management activities**. A negative example is introduction, via equipment used for *management activities**, of an *invasive species** into an area not previously colonized by that *species**.

At minimum, the values addressed by *The Organization** per Criterion 4.5 should be considered.

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

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

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

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

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

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

Federal Lands Guidance for **Indicator 5.4.3** (*Existing USFS Guidance for Indicator 5.2.c*): This includes the use of available contracting mechanisms and other tools, such as

stewardship contracting, Collaborative Forest Landscape Restoration (CFLR), Special Salvage Timber Sales (SSTS), the Small Business Act (SBA) timber set-aside program and the Good Neighbor Authority in affording opportunities to local, financially competitive service providers and in supporting the development of small value-added processing and manufacturing facilities.

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

Federal Lands Intent for **Criterion 5.5** (*Existing USFS Intent for Criterion 5.1*): For the *Management Unit**, economically viable forest management is characterized as management which supports ecosystem integrity and contributes to ecological, social and economic sustainability.

Indicator 5.5.1 *The Organization** is financially able to implement core *management activities**, including:

- a. all environmental, social, and operating costs, required to meet this Standard; and
- b. investment and reinvestment in *forest** management.

Federal Lands Guidance for **Indicator 5.5.1** (*Based on existing USFS Indicator 5.1.1*): Federal agencies may utilize innovative approaches to share the costs of core management activities with others and thereby reduce their financial responsibility. These innovative approaches may include volunteers and collaborative projects with other entities.

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

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

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

Federal Lands Guidance for **Indicator 5.5.2** (*Existing USFS Guidance for Indicator 5.1.b*): Budget constraints and other fluctuations in appropriations may be considered short-term financial factors.

PRINCIPLE 6: ENVIRONMENTAL VALUES* AND IMPACTS

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

NOTE: Federal lands supplementary requirements are proposed for Indicators 6.1.1, 6.2.1, 6.4.3, 6.5.2, 6.6.3, 6.6.5, 6.7.3, 6.7.4, 6.7.7, 6.7.9, 6.8.1, and 6.8.2. Supplementary indicators are proposed in Criterion 6.1, Criterion 6.3, and Criterion 6.7. Additionally, Federal lands-specific guidance is proposed for Indicator 6.4.2 and Federal lands-specific intent language is proposed for Principle 6, Criterion 6.1, and Criterion 6.6.

Intent: Principle 6 focuses on maximizing positive environmental impacts and minimizing adverse environmental impacts from *management activities**.

Within the scope of Principle 6 are issues and concepts about which there remains considerable uncertainty; in cases of uncertainty, the use of a *precautionary approach** is present both implicitly and explicitly in several aspects of the *Principle** because mitigation, repair and *restoration** is often difficult, more costly, and sometimes impossible.

See Glossary for definition of *biological diversity**.

Federal Lands Intent for **PRINCIPLE 6** (*Existing USFS Intent for Principle 6*): For the *Management Unit**, ecological sustainability is a core responsibility. This Principle addresses economically viable forest management that takes into account the responsibility to support ecosystem integrity and contribute to ecological, social, and economic sustainability.

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

Intent: 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. Assessments, per Criterion 6.1, are undertaken with an adequate level of detail and frequency sufficient for the purpose of establishing management prescriptions and monitoring protocols designed to

achieve conformance per Criteria 6.2 and 6.3.

Guidance: Criteria 6.1 through 6.3 follow a logical sequence in which an assessment of current conditions is completed and compared to historic conditions in order to understand the effects of the short-term and *long-term** impacts of management and to determine where *restoration** may be warranted, and then management approaches are developed and implemented that minimize and mitigate for these impacts.

Environmental values within the *landscape** of the *Management Unit** (both within and outside the *Management Unit**) that may be affected by *management activities** occurring within the *Management Unit** are to be included in the assessment process. 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.

Assessments include consideration of all aspects of site-disturbing operations for which *The Organization** has direct control, such as: activities associated with timber management, recreational uses, transportation, on-site wood processing facilities, grazing, mineral extraction, transmission line siting, and other activities conducted in the *Management Unit**.

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

- *Representative Sample Areas** showing environmental values in their *natural condition**
- field surveys
- databases relevant to the environmental values
- consultation with local and regional *experts**
- *culturally appropriate** *engagement** with *Indigenous Peoples**, *local communities**, and *affected stakeholders** and *interested stakeholders**
- climate change vulnerability assessments

Federal Lands Intent for **Criterion 6.1** (*Existing USFS Intent for Criterion 5.5*): Protection and enhancement of ecosystem services and resources are core responsibilities of land-managing Federal agencies. This includes consideration and management at a landscape-scale, and pursuing opportunities to work across ownerships in collaboration with other agencies and landowners.

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

- a. *forest** community types, size class, and/or *successional** stages, and associated

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

Federal Lands Supplement1 to Indicator 6.1.1 (*Based on existing USFS 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 (*Existing USFS Supplement to Indicator 6.1.a*)

The assessment of conditions includes:

- opportunities for climate change adaptation ,
- threats to *species** persistence and their ability to persist within the *Management Unit** and in the *landscape**,
- the potential to manage for *forest** resiliency that will help to reduce future climate-related *forest** impacts (or degradation), and
- vulnerability to *stand** replacing (severe) fire (relative to the Natural Range of Variability), and other major disturbances such as windthrow (see also Federal Lands Indicator 6.1.2).

Federal Lands Supplement3 to Indicator 6.1.1 (*Based on existing DOD/DOE Supplement3 to Criterion 4.4*) For *Management Units** that have a history of use and/or disposal of hazardous materials, munitions, and/or other military or industrial activities, the assessment of conditions includes the potential negative impacts on environmental values from these activities.

Intent: Indicator 6.1.1 establishes *historic conditions**, current conditions and potential future conditions for assessing environmental impacts. The purpose of establishing *historic conditions** is to facilitate creating a baseline for assessing environmental impacts of operations, to facilitate establishing *desired future conditions**, and to determine when *restoration** may be needed. When *historic conditions** are not available, best estimates from available sources may be used. *Historic conditions** should be used as guidelines for estimating ecological components of naturally occurring conditions. The expectation is not that *The Organization** will attempt to exactly re-create the conditions of a particular point in time,

but that it will use the *historic condition** information to better understand ecological complexity, changes over time and potential within the *Management Unit** to inform *desired future conditions** and *management objectives**. However, the potential future impacts of climate change may limit the value of *historical condition** information in some situations.

The assessment for *rare, threatened, and endangered species** and *rare ecological communities** includes G1–G3, S1–S2, and some S3 species. These “G” and “S” ranks are conservation status ranks used by NatureServe and Natural Heritage Programs to provide an assessment of imperilment (1 [critically imperiled] through 5 [secure]) at global (“G”) and state (“S”) scales. The evaluation to determine which S3-ranked *species** warrant recognition as *rare, threatened, and endangered species** and which communities warrant recognition as *rare ecological communities** should be based on the following: S3 *species**/communities that are candidates for federal or state listing should be considered *rare, threatened, and endangered species**/*rare ecological communities**. S3 *species**/communities that have been proposed for federal or state listing should also be given priority. The assessment should be designed to identify and recognize as *rare, threatened, and endangered species** those S3 *species**/communities that are more imperiled across their natural ranges, and that are more sensitive and vulnerable to impact from the types of *management activities** that will occur on the *Management Unit** .

Item (f) is intended to address *forest** *ecosystem services** and resources that are associated with public values and not duplicate those addressed in Principles 4 and 9. *Forest** *ecosystem services** and resources may vary with ownership type (e.g., public vs. private), size, and region, and may include, but are not limited to, watersheds, fisheries, and other non-timber *forest** values and services such as recreation, and carbon storage and sequestration.

The reference to carbon storage and sequestration is to have *forest** managers recognize carbon storage as an important *ecosystem service** and public value. It is not intended to preclude harvest that is consistent with other parts of this Standard, nor is *The Organization** required to quantify carbon storage and sequestration. *The Organization** should consider the values associated with carbon and integrate it into management decisions as is done with watersheds, fisheries, and recreation.

Guidance: The *forest** community and successional* stage classification system may be based on regional norms or a landowner-specific system (e.g., the FMO’s stand classification system). At minimum, the classification must include sufficient specificity and differentiation to account for *forest** sites’ natural diversity and tree *species**, *habitat** types, stand structures, and their distribution (or lack thereof), including all *successional** stages from regeneration through *old growth** characteristic of regional forest dynamics (see also Indicator 6.6.1).

The above element of the assessment process will also generate information that is relevant to the assessments required for *Representative Sample Areas** (Criterion 6.5) and *High Conservation Values** (Principle 9).

Primary sources of information include state Natural Heritage Programs, NatureServe, LANDFIRE, state wildlife agencies, US Fish and Wildlife Service, and the National Marine Fisheries Service. Depending on the *scale** and *intensity** of operations and potential for *risk** as indicated by consultation with *conservation** agencies, on-site searches for *rare, threatened, and endangered species** may be applicable.

In states where S1, S2, S3, or G3 *species** and communities are not mapped by the Natural Heritage Program, or where *rare, threatened, and endangered species** information is incomplete, the *Best Available Information** for S1–S3 and G3 *species** and communities' occurrences and finest resolution of classification commonly available in that state should be used.

Resources for helping to determine potential future impacts of climate change are included in the Climate Change Toolkit in Annex L.

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

Federal Lands Indicator 6.1.2 (*Existing USFS Indicator 5.5.2*) Carbon stocks, carbon removals (through harvest, fire and other significant disturbances) and carbon sequestration are quantified and tracked. The rationale for methodologies employed are documented.

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

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

Federal Lands Supplement to Indicator 6.2.1 (*Existing USFS Supplement to Indicator 6.1.b*) The elements in the Federal Lands Supplements to Indicator 6.1.1 are included in this documented assessment.

Intent: This *Indicator** focuses on assessing potential impacts to environmental values identified per Indicator 6.1.1, considering scales of impacts from the stand level to the landscape level.

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

“Assessments of environmental impacts” do not require a formal “Environmental Impact Assessment” as defined under federal and state laws and regulations.

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

Potential impacts to site-specific features (e.g., unique *habitats**, *water bodies**, identification of sensitive *soils**) are typically addressed in operations plans and/or prescriptions. *Long-term** and *cumulative impacts** are addressed in the *management plan**, while short-term impacts may be addressed in harvest plans or in separate management guidelines that describe potential *risks**. While not all impacts can be easily distinguished as “*long-term**” or “short-term,” it is important that they are included in either the *management plan** or the harvest plan.

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

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

Intent: This *Indicator** focuses on developing/implementing management measures to avoid or minimize impacts identified in Indicator 6.2.1. Emphasis should be placed first on avoidance and then on minimizing and mitigating negative impacts.

Guidance: Management approaches to address potential *long-term** impacts, including *cumulative impacts**, will typically be addressed in the *management plan**. They should also be addressed in operational plans.

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

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

Indicator 6.3.2 Unless it is being used to achieve ecological *management objectives**, whole-tree removal:

- a. does not occur on nutrient-poor *soils** or *soils** sensitive to compaction or other disturbance;
- b. does not occur in *wetlands**, *rare ecosystems**, or other ecologically sensitive areas;
- c. if it does occur, is not planned to occur again in the subsequent rotation unless research indicates *soil** productivity and belowground carbon sequestration will not be compromised; and
- d. if it does occur, leaves roots and stumps on-site.

Applicability: This indicator is applicable to harvesting operations that remove the above-ground portions of the trees, including stems, branches, twigs, and leaves, from the *harvest unit** and all of these materials are either left on the landing or are transported off-site. A key element is that material is removed from the *forest** and is utilized off the site.

This indicator is not applicable to harvesting operations that remove whole trees to the landing, process them by removing tops and limbs, and then distribute a significant portion of those tops and limbs back into the woods or on skid trails (in conformance with Indicators 6.6.3 and 10.11.4).

Indicator 6.3.3 Where negative impacts to environmental values identified per Indicator 6.1.1 occur as a result of *management activities** implemented by *The Organization**, measures are adopted to prevent further damage, and negative impacts are mitigated and/or repaired.

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

Indicator 6.3.4 On *public lands**, assessments developed per Indicator 6.1.1 and management

approaches developed per Indicator 6.3.1 are made available to the public in draft form for review and comment prior to finalization. Final assessments are also made available.

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

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

Federal Lands Indicator 6.3.5 (*Existing USFS Indicator 6.3.1*) When the analysis required by Federal Lands Supplement⁴ to Indicator 7.1.2 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 opportunities are developed and implemented.

Federal Lands Indicator 6.3.6 (*Existing USFS Indicator 6.3.2*) Areas within the *Management Unit** that actively function as *refugia** are identified and continue to be managed as such.

Federal Lands Indicator 6.3.7 (*Existing USFS Indicator 6.3.3*) Within a refugium, forest management is focused on actions needed to support a refugium's composition, structure, and function, or actions that will not detract from these elements of a refugium.

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

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

*The Organization** has the discretion to keep the specific location of rare populations confidential.

Indicators 6.4.1 through 6.4.3 follow a logical sequence in which applicants are required to develop a list of *rare, threatened, and endangered species** present in the forest, modify *management plans** accordingly, and implement *management activities** to maintain or

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

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

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

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

Guidance: Depending on the type of *Management Unit** (e.g., scale, scope, degree of *risks**) *The Organization** may be required to have surveys conducted by independent *experts** representing no conflict of interest. It may also include a secondary review.

Indicator 6.4.2 When *rare, threatened, and endangered species** are present, or assumed to be present, modifications in *management activities** are made to maintain, *restore**, and/or enhance the extent, quality, and viability of *species** and their *habitats**. *Conservation zones** and/or *protected areas** are established for *rare, threatened, and endangered species**, including those S3 *species** that are considered rare, where they are necessary to maintain or improve the short-term and *long-term** viability of the *species**. Conservation strategies are based on *Best Available Information** .

Intent: The goal of this *Indicator** is to be aware of *rare, threatened, and endangered species** and to manage appropriately in situations where they are present. This may require establishing *conservation zones** or *protected areas** where warranted. *Conservation zones** are not considered “set asides” and active management within these areas is allowed where appropriate.

Guidance: In states where S1, S2, S3, or G3 *species** are not mapped by the local Natural Heritage Program or where *rare, threatened, and endangered species** information is incomplete, the best available data should be used.

For the purposes of this indicator, *Best Available Information** includes relevant science, guidelines, and/or consultation with relevant, independent *experts** as necessary to achieve the *conservation** goal of the *Indicator**.

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

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

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

Federal Lands Supplement to Indicator 6.4.3 (New) 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**.

Applicability note: This Indicator is only applicable for *public lands**.

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

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

Intent: This indicator focuses on application of the *precautionary approach** in order to avoid irreversible negative consequences to *rare, threatened, and endangered species** and their *habitats** from extractive and recreational activities.

C6.5 *The Organization shall identify and protect *Representative Sample Areas** of native**

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

Intent: The goal of this *Criterion** is to manage or *restore** sites to favor or form *viable** examples of native *ecosystems** that are typical of the locality, and that would naturally occur in the *Management Unit**. *Representative Sample Areas** should reflect the full diversity of native *ecosystems**, not just those that are *forested**. However, they should not disproportionately represent non-*forested** *ecosystems**.

*Representative Sample Areas** are 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. *Representative Sample Areas** may also:

- a. serve to *conserve** or *restore** an underrepresented ecological condition (i.e., *forest* successional* phases, ecological communities*); and/or
- b. serve as a set of *protected areas** or *refugia** for *species**, communities, and/or community types not addressed in other *Criteria** of this Standard.

*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.

*Protection** of *High Conservation Values**; *rare, threatened, and endangered species**; communities; and *ecosystems** with special ecological values are also addressed and *protected** in other parts of this Standard (see Criteria 6.4 and 6.6, and Principle 9). One of the primary provisions in Criterion 6.5 is to ensure that examples of *ecosystem** types that are not *protected** elsewhere in this Standard are *protected** in their natural state within the landscape.

Guidance: *Management activities** within *Representative Sample Areas** are not prohibited, but per Indicator 6.5.4 are limited to activities that do not detract from the *Representative Sample Area** objectives for *ecosystem* conservation* or restoration**. *Representative Sample Areas** representing underrepresented conditions may be manipulated to maintain the desired conditions.

Additional guidance is included in Annex G.

Indicator 6.5.1 Per Annex G and using *Best Available Information**, *The Organization** assesses and documents: a) the native *ecosystems** that would naturally occur on the

*Management Unit**, including those that do not currently occur on the *Management Unit**; and b) their representation, status, and *protection** in the *landscape**.

The assessment for *medium** and *large** *Management Units** include some or all of the following: a) *GAP analyses**; b) collaboration with state Natural Heritage Programs; c) public agencies; d) regional, landscape, and watershed planning efforts; and e) collaboration with universities and/or local *conservation** groups.

Guidance: Assessments should generally be in writing. *The Organization** should describe the rationale for how determinations of representativeness, status, and level of existing *protection** have been made.

Guidance on scaling for assessments of *Representative Sample Areas**-: *The Organization** for *small** and *medium** *Management Units** may comply with this *Indicator** through more informal consultation.

Indicator 6.5.2 Based upon the assessment completed per Indicator 6.5.1, *Representative Sample Areas** are established per Annex G to conserve identified *ecosystems** that have *viable** occurrences on the *Management Unit** and *restore** identified *ecosystems** that do not have *viable** occurrences on the *Management Unit**.

Federal Lands Supplement to Indicator 6.5.2 (*Existing USFS Supplement to Indicator 6.4.b*)
The applicable Federal agency establishes *Representative Sample Areas** within the *Management Unit** for all native ecosystems that would naturally occur on the *Management Unit** , irrespective of the occurrence of the ecosystems outside of the *Management Unit**.

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

Guidance: Overall, within *The Organization*'s* established *Representative Sample Areas**, the expectation is for a greater emphasis on *ecosystems** and ecological conditions that are in greater need of *conservation** assistance. Annex G provides further considerations for which *ecosystems** to emphasize, including when *Representative Sample Area** establishment is not essential for a particular *ecosystem**.

Federal Lands Guidance for Federal Lands Supplement to Indicator 6.5.2 (*USFS Guidance for USFS Supplement to Indicator 6.4.b*): Federal lands play a critical role in protecting and restoring native *ecosystems**. It is therefore expected that the *Management Unit** maintain and/or expand an ecologically viable, resilient, well-distributed, and where possible, interconnected protected area system for all native *ecosystems** that would naturally occur on the *Management Unit**.

Indicator 6.5.3 Per Annex G, the extent of *Representative Sample Areas** established is proportionate to the level of protection of native *ecosystems** within the *landscape**, the size of the *Management Unit**, and the *intensity** of *forest** management.

Indicator 6.5.4 *Management activities** within *Representative Sample Areas** are limited to activities that support or do not detract from the *Representative Sample Area** objectives for *ecosystem* conservation* or restoration**.

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

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

Indicator 6.5.5 The *Representative Sample Area** assessment (per Indicator 6.5.1) is reviewed as part of the review of the *management plan** and, if necessary, updated; the designation of *Representative Sample Areas** (per Indicator 6.5.2) is revised accordingly.

Guidance: When different components of the *management plan** are reviewed at different times, *The Organization** should review the *Representative Sample Area** assessment in coordination with review of the applicable portion(s) of the *management plan**.

Indicator 6.5.6 *Representative Sample Areas**, in combination with other components of the *conservation areas network**, comprise a minimum 10% area of the *Management Unit**.

Intent: The *conservation areas network** is established within the *Management Unit**, except in

a limited number of situations that are described in Annex H.

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

Indicator 6.5.7 *Large**, contiguous *public land** *Management Units** establish and maintain a network of *conservation zones** and/or *protected areas** sufficient in size to maintain *species** dependent on interior core *habitats**.

Applicability: this *Indicator** only pertains to *large**, contiguous *public lands** .

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

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

Federal Lands Intent for **Criterion 6.6** (*Existing USFS Intent for Criterion 6.3*) Given the very large scale of many Federal administrative units, management of the *Management Unit** is expected to make significant contributions to landscape-scale conservation goals and opportunities.

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

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

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

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

Guidance: *Species** that are characteristic of *forests** within the *landscape** may include: *forest** interior specialists; early *successional** *forest** specialists; mature *forest** specialists; *forest** understory *species**; *species** with large territories or home ranges whose populations may be dependent on specific *habitat** conditions; *species** at risk from *habitat fragmentation**; and *species** with very restricted ranges limited by specific *habitat** conditions.

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

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

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

Ownership size considerations: The range of *species** and *habitat** conditions that can be accommodated at any one time will vary by ownership size. On smaller ownerships (generally, tens to thousands of acres), management should meet the requirements of this *Indicator** by managing for *habitat** diversity for the entire *forest** and consider the role of the ownership within the surrounding *landscape**. However, ownership size will limit the type and amount of diversity that can be provided.

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

Indicator 6.6.2 At a stand or site scale, management practices maintain or enhance plant species composition, distribution, and frequency of occurrence similar to those that would naturally occur on the site.

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

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

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

Indicator 6.6.3 At a stand or site scale, management maintains, enhances, or *restores* habitat** components and associated stand structures, in abundance and distribution that could be expected from naturally occurring processes. These components: include large live trees, live trees with decay or declining health, *snags**, and well-distributed coarse down and dead *woody debris**. *Legacy trees** where present are not harvested;

- a. provide vertical and horizontal complexity;
- b. are generally representative of the *species** naturally found on the site; and
- c. are maintained over successive harvests and are buffered by green trees and other vegetation where needed and available to maintain microclimate and reduce windthrow.

Federal Lands Supplement1 to Indicator 6.6.3 (New) 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 (New) If *legacy trees** must be harvested to address safety issues or to achieve ecological objectives, the downed trees are left on-site if ecologically appropriate.

Specific to the Southwest Region

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

Intent for All Regions: The intent of this *Indicator** is to ensure that *The Organization** provides adequate *habitat** for *species** associated with large and/or decaying trees and dead wood. This Indicator applies to all *stands**, *silvicultural** systems, and harvest objectives, including normal operations, salvage harvests, intermediate and final harvests, and *stands** regenerated by natural means or by planting.

Guidance for All Regions: Some *stands** may take some time to develop these structural elements. Evidence of conformance may include measurable goals (e.g., numbers and sizes of trees), and application of *silvicultural** systems and harvesting practices that develop and maintain these structures over time. *Long-term** passive approaches may be used to develop *snags** and coarse down and dead *woody debris** by allowing *retention** trees (e.g., large live decay trees) to die naturally, rather than girdling and/or felling trees specifically for that purpose.

Trees with decay or declining health include but are not limited to cavity trees.

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

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

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

Indicator 6.6.4 *The Organization** develops and implements a written strategy to prevent or

control *invasive species** It includes:

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

Intent: This *Indicator** minimizes 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, mapping their location and extent, screening sites during harvest planning, and informal observations by *forest** managers in the field.

Practices that minimize the risk of establishment and growth of *invasive species** include: washing equipment prior to moving on-site; avoiding seed mixes that contain potential *invasive species**; using weed-free mulch during *erosion**-control operations; seeding landings and other disturbed areas with *native species**; altering *silvicultural** treatments; and effective *forest** monitoring and early detection.

In prioritizing *invasive species** control, *The Organization** should consider the relative risk of *invasive species** infestations relative to other threats to the *forest** (e.g., fire, insects, disease, etc.). Control measures should match the scale of the infestation and the potential risks and/or actual impacts to *native species** and *ecosystems**.

Feasibility and consistency with Criterion 6.1 may be considered when developing the *invasive species** strategy .

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

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

Federal Lands Supplement¹ to Indicator 6.6.5 (*Existing USFS Supplement¹ to Indicators 6.3.g.1 and 6.3.g.2*) 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 (*Existing USFS Supplement2 to Indicators 6.3.g.1 and 6.3.g.2*) 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 documented.

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

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

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

Specific to the Appalachian Region

Regional Supplement1 When *even-aged silviculture** (e.g., clearcut, seed tree, regular or irregular shelterwood, deferment cuts) is employed, live trees and native vegetation are retained and 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: *Even-aged silviculture** should be used only where naturally occurring *species** are maintained or enhanced. *Retention** within *harvest units** can include *riparian area** *buffers** and other special zones. Where *stands** have been degraded, or where harvest practices implemented by previous management created conditions that limit *silvicultural** options (e.g., shelterwood establishment), less *retention** may be used with the intent of improving future *stand** conditions or releasing advanced regeneration. When considering maximum opening size with no *retention**, *The Organization** should consider potential *aesthetic** impacts, *age class** diversity on the *landscape**, regeneration goals, and *natural disturbance patterns**. Generally, individual harvest openings with no *retention** should average less than 10 acres across the *Management Unit** in a given year, and no single opening without *retention** should exceed 25 acres.

Specific to the Ozark-Ouachita Region

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

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

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

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

Specific to the Pacific Coast Region

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

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

- a. *native species** require openings for regeneration or vigorous young-stand development;
- b. it *restores** the *native species** composition; or

- c. it is needed to *restore** structural diversity in a *landscape** lacking openings while maintaining *connectivity** of older intact *forests**.

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

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

Regional Supplement7 No logging unit adjacent to a logged even-aged regeneration unit may be harvested using an even-aged regeneration method unless/until the prior even-aged regeneration unit 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.

Specific to the Mississippi Alluvial Valley Region

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

Specific to the Rocky Mountain Region

Regional Supplement9 *Even-aged silviculture** is employed only where it is ecologically appropriate to the *forest** type, 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

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

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

Specific to the Southeast Region

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

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

Indicator 6.6.6 For purposes of *restoration**, *The Organization** has the option to develop a plan to allow for departures from the opening size limits associated with Indicator 6.6.5.. The plan is:

- a. developed by *experts** in ecological and/or related fields (e.g., wildlife biology, hydrology, landscape ecology, forestry/*silviculture**);
- b. based on *Best Available Information**, including peer-reviewed science regarding *natural disturbance regimes** for the *Management Unit**;
- c. spatially and temporally explicit and includes maps of proposed openings or areas;
- d. able to demonstrate that the variations will result in equal or greater benefit to wildlife, water quality, *ecosystem** processes, and other values compared to Indicator 6.6.5 (without any supplementary regional requirements), including for sensitive and *rare, threatened, and endangered species**; and
- e. developed in collaboration with affected *rights holders**, *affected stakeholders**, and *interested stakeholders**.

Applicability: This *Indicator** is applicable only under situations where *The Organization** has

opted to develop rationale for opening sizes that depart from explicit regional limits set forth in the regional supplementary requirements of Indicator 6.6.5 .

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

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

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

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

Guidance: *Conservation** measures should be based on relevant science, guidelines and/or consultation with relevant *experts** as necessary to achieve the *conservation** goal of the *Indicator**.

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

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

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

Intent: This Standard differentiates between “*riparian area**” and “*riparian management zone**” (i.e., RMZ), but recognizes that this is an artificial construct, as there are few situations in the United States where the purposes of these two types of areas are not overlapping and/or intermixed—the intent of management is the differentiator between the two terms. *Riparian*

*areas** are delineated and managed to conserve the plant and wildlife *habitat** characteristics of the area and to protect adjacent *aquatic habitats** and *ecosystems**. *Riparian management zones** are designed to *protect* water quality** and *aquatic habitat**. *Riparian areas** vary in width according to biotic and abiotic characteristics and may be wider than a *riparian management zone**. Both *riparian areas** and *riparian management zones** encompass the interface between upland communities, which include complex *ecosystems** that provide food, *habitat**, and movement corridors for both aquatic and land communities. In practice, on FSC-certified *Management Units**, most *riparian management zones** function as *riparian areas**.

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

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

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

Intent: This Indicator is intended to cover the *habitat** and functions of *riparian areas** around rivers, *perennial streams**, *intermittent streams**, ponds, lakes, *wetlands**, *vernal pools** and tidal waters. In this context, the intent of “restore” is the formation of more *natural conditions** in sites that have been heavily degraded or converted to other land uses.

Guidance: Depending on the *ecosystem** and region, *riparian areas** frequently extend beyond, and may have different management guidelines than, those required by Indicator 6.7.. *Management activities** in *riparian areas** are acceptable as long as ecological objectives are met.

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

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

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

Intent: *Best management practices** for *water quality**, *erosion** control, *protection** of *forest** resources during harvesting, road construction, and all other mechanical disturbances provide a foundational minimum for compliance with this *Criterion**.

*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).

Isolated and minor situations of noncompliance with *best management practices** may or may not result in a finding of nonconformance with the *Indicator**.

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

Environmental impacts could be caused by, but are not limited to, the following-:

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

Federal Lands Supplement1 to Indicator 6.7.3 (*Existing USFS Supplement1 to Indicator 6.5.d*) As part of the *Management Unit***'s transportation system planning, the applicable Federal agency has:

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

Federal Lands Supplement2 to Indicator 6.7.3 (*Existing USFS Supplement2 to Indicator 6.5.d*) 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: Control measures that reduce environmental impacts may include, but are not limited to:

- controlling access to and closing roads;
- limiting use of roads without a weather-resistant surface to periods of weather when conditions are favorable to minimize road damage, surface *erosion**, and sediment transport;

- restricting access on roads that are not immediately necessary for management purposes;
- posting or monitoring enforcement;
- constructing roads on slopes in excess of 60% with full bench cuts or minimal side cast;
- removing roads, bridges, culverts, and water bars when roads are decommissioned;
- recontouring or revegetating slopes, and establishing ecologically functional drainage patterns;
- locating landings on ecologically suitable sites, and minimizing ~~and~~ the size and the number of landings;
- seeding, mulching, or covering landings with slash after use;
- minimizing *riparian area** crossings;
- installing stream crossings at an angle that causes least ecological disturbance;
- using water diversion structures according to locally applicable guidelines; and
- reducing road density and/or mitigating its impact in *habitats** for salmonids and other threatened and endangered aquatic *species**.

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

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

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

Federal Lands Supplement to Indicator 6.7.4 (*Existing USFS Supplement 1 and Supplement 2 to Indicator 6.5.f*) New, permanent crossings (culverts and bridges) are sized at a minimum for calculated peak 100-year flows. Existing crossings are assessed for their capacity and prioritized for upgrading if they do not meet 100-year peak flow standards.

CONSULTATION QUESTION: Is the 100-year peak flow threshold the appropriate threshold for this supplementary requirement?

Guidance: Crossing structures should be designed to match the natural stream width, depth, velocities, and substrate through the crossing structure.

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

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

Applicability for All Regions: Among regions, *riparian management zones** may be referred to as streamside management zones (SMZs), special management zones, buffers, and/or buffer zones (when referencing *water quality** and *aquatic habitats**). Additionally, while *riparian management zones** represent complex *ecosystems** that provide food, *habitat**, and movement corridors for both aquatic and land communities, they differ from *riparian areas** in that their primary focus is on *protecting* water quality**. *Riparian management zones** also commonly have strictly defined width and operational requirements that vary according to region.

Intent for All Regions: The focus of this *Indicator** is on stream and *water quality* protection**, and also involves *riparian management zones** and stream management zones. See Indicator 6.7.1 for requirements addressing plant and wildlife *habitat** values adjacent to *water bodies**.

Guidance for All Regions: Guidelines should meet or exceed regional recommendations (e.g., *water quality best management practices**) as necessary to meet the objective of *water quality protection** and *restoration** measures. Measures for all stream segments include, but are not limited to:

- 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;
- ensuring recruitment of coarse *woody debris** where needed for aquatic *habitats**; and

- regulating harvest and road construction on upslope areas to ensure proper hydrological function, including the timing, intensity, and location of water delivery.

Specific to the Appalachian Region

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

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

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

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

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

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.

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 waters. When the necessary information is available, the width of a *riparian management zone** is based on the landform, erodibility of the *soil**, stability of the slope, and stability of the stream channel as necessary to protect *water quality** and repair *habitat**. When such specific information is not available, the width of the *riparian management zone** is calculated according to Table 1.

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

Regional Supplement6 (New) Roads, skid trails, landings, and other similar *silviculturally** disturbed areas are constructed outside of the *riparian management zone**, except for designated stream crossings or when placement of disturbance-prone activities outside of the *riparian management zone** would result in more environmental disturbance than placing such activities within the *riparian management zone**.

Regional Supplement7 The entire *riparian management zone** of *intermittent streams** is managed as an outer *riparian management zone**.

Regional Supplement8 The *management activities** do not result in observable siltation of intermittent streams.

Specific to the Ozark-Ouachita Region

Regional Supplement9 Table 2 provides *riparian management zone** (i.e., streamside management zone) widths.

Table 2. <i>Riparian management zone*</i> widths for perennial and intermittent watercourses^{1,2}						
Soil erosion susceptibility	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.

Regional Supplement10 *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**.

Regional Supplement11 Use of chemicals is prohibited in *riparian management zones**, unless necessary to control *invasive species** that would otherwise threaten the viability of the *ecosystem**.

Regional Supplement 12 Skid trails and operation of heavy equipment are prohibited in *riparian management zones**, except at designated crossings.

Specific to the Southeast Region

Regional Supplement 13 *Riparian management zones** (i.e., streamside or special management zones) are specifically described and/or referenced in the *management plan**, included in a map of the *forest** management area, and designed to *protect** and/or *restore* water quality** and aquatic and riparian populations and their *habitats**. At a minimum, management of *riparian management zones** has the following characteristics:

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

Specific to the Mississippi Alluvial Valley Region

Regional Supplement 15 *Riparian management zones** are created and maintained in accordance with Table 36.

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

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

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

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

Regional Supplement 16 For *perennial streams**, the inner zone of the *riparian management zone** is defined as the area within 30 feet of the mean high-water mark. Within that zone, timber harvest is limited to single-tree selection, and canopy cover is

sufficient to maintain shade adequate to moderate water temperature. Harvesting in this zone maintains the composition, structural complexity, and functions of the *riparian management zone*^{*}.

Regional Supplement17 For *perennial streams*^{*}, timber harvest in the outer zone of the *riparian management zone*^{*} is limited to either single-tree selection or small group selection. Canopy cover and vegetation are maintained to provide filtration of runoff into a stream.

Regional Supplement18 Within intermittent *riparian management zones*^{*}, *regeneration harvest*^{*} may be conducted provided other vegetation and/or ground cover remains to protect the *forest*^{*} floor and the stream bank in a manner that will maintain *water quality*^{*}.

Regional Supplement19 Prescribed burning is allowed in *riparian management zones*^{*} when *water quality*^{*} and the structures and composition of the *forest*^{*} within the *riparian management zones*^{*} can be maintained.

Specific to the Southwest Region

Regional Supplement20 *Riparian management zones*^{*} (i.e., buffer zones) are established for all natural streams and watercourses with definable banks, and for ponds, lakes, and *wetlands*^{*}. *Riparian management zones*^{*} are measured horizontally (in such a way that ground slope does not reduce the distance) from the following:

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

Regional Supplement21 *Riparian management zone*^{*} width is determined as follows:

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

Regional Supplement22 Management in the *riparian management zone*^{*} maintains, enhances, or *restores*^{*} the condition of the *riparian area*^{*} or streamside zone. For example:

- a. Thinning from below and planting trees may be carried out for purposes of controlling *erosion*^{*} *restoration*^{*}.

- b. Ecological, aquatic, and riparian functions (e.g., the maintenance or restoration of riparian microclimates) are demonstrably the priority *silvicultural** objective of any commercial harvesting. 6.5.e.1.c (SW only)

Regional Supplement23 *Transportation systems** and mechanical operations (including any form of significant ground-disturbing activity) in *riparian management zones** do not compromise the filtration, shading, nutrient, and habitat functions of the *riparian management zone**. For example:

- a. Permanent roads are maintained or installed only as necessary to cross streams at a perpendicular or other angle that causes the least ecological disturbance. Temporary roads or designated skid trails across a *riparian management zone** may be permitted in rare instances after preparation of a pre-operation plan that protects riparian values.
- b. Operation of wheeled or tracked equipment is restricted to roads and designated crossings.
- c. Storage, handling, or use of hazardous materials is prohibited in *riparian management zones**.

Note: Full-suspension yarding is also an option so long as it does not compromise the *riparian management zone**.

Specific to the Rocky Mountain Region

Applicability : Some discretion may be applied to stream segments that support no fish, rarely contribute surface flow to other streams or other *water bodies**, and normally have surface flow less than six months of the year. In such instances *riparian management zone** widths should follow those designated, but management restrictions should be more flexible, as long as riparian concerns continue to receive highest priority. *The Organization** should identify and provide adequate *protection** for all streams, lakes, *wetlands**, and associated *riparian areas**, including through establishment of *riparian management zones**, and restore them to their properly functioning condition, when feasible. When *riparian management zones** are established, the extent and protection that they provide should be adequate to serve all the functions and objectives of such zones in *forests** under *natural conditions**. These functions include, but are not limited to: 1) control of *erosion** of *soil** and organic debris; 2) control of stream sedimentation; 3) stabilization of surface water and groundwater flow fluctuations; 4) stabilization of water temperatures; 5) provision of organic debris (including large-diameter wood) for the aquatic *habitat**; and 6) provision of *habitat** (shelter, water, food, travel corridors, etc.) for many *species** of plants and animals.

Regional Supplement24 *Riparian management zone** (i.e., SMZ) width is at least 50 feet on either side of the ordinary high-water mark, extending wider on steep or erosive slopes. Where slopes of *riparian management zones** exceed 35%, the *riparian management zone** boundary is at least 100 feet. If wetlands touch the *riparian management zone**, then the *riparian management zone** boundary is extended to

include the *wetland**. *Riparian management zone** width is extended wherever necessary to protect riparian functions.

Regional Supplement25 Management in the *riparian management zones** takes a conservative approach that puts aquatic and riparian concerns above timber consideration. Roads are prohibited in *riparian management zones**, except for permanent roads necessary to cross the stream at a perpendicular or other angle that causes the least ecological disturbance. Operation of wheeled or tracked equipment is prohibited in the *riparian management zone**, except on permanent roads. Temporary roads or designated skid trails across the *riparian management zone** may be permitted in rare instances after preparation of a pre-operation plan that *protects** riparian values. 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. Appropriate techniques are used to maintain existing roads and ditches to prevent adverse impacts to *water quality**. Storage, handling, or use of hazardous materials is prohibited in *riparian management zones**.

Specific to the Pacific Coast Region

Guidance: This section uses the following definitions.

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

Regional Supplement26 For Category A streams, and for lakes and wetlands larger than 1 acre, an inner *riparian management zone** (i.e., buffer zone) is maintained. The inner *riparian management zone** is at least 50 feet wide (slope distance) from the active high-water mark (on both sides) of the stream channel and increases depending on *forest** type, slope stability, steepness, and terrain. Management activities in the inner *riparian management zone** :

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

- h. avoid road construction and reconstruction.

Regional Supplement27 For Category A streams, and for lakes and wetlands larger than 1 acre, an outer *riparian management zone** is maintained. This buffer extends from the outer edge of the inner *riparian management zone** to a distance of at least 150 feet from the edge of the active high-water mark (slope distance, on both sides) of the stream channel. In this outer *riparian management zone** , harvest occurs only where:

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

Regional Supplement28 For Category B streams, a 25-foot (slope distance) inner *riparian management zone** is created and managed according to provisions for inner *riparian management zones** for Category A. A 75-foot (slope distance) outer *riparian management zone** (for a total buffer of 100 feet) is created and managed according to provisions for outer *riparian management zone** for Category A.

Regional Supplement29 For Category C streams, and for lakes and wetlands smaller than 1 acre, a *riparian management zone** 75 feet wide (on both sides of the stream) is established that constrains *management activities** to those that are allowed in outer *riparian management zones** of Category A streams.

Regional Supplement30 For Category D streams, management:

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

Indicator 6.7.6 In limited circumstances, or if minor in extent, variations from the stated minimum *riparian management zone** widths and layout for specific stream segments, *wetlands**, and other *water bodies** are permitted, provided *The Organization** demonstrates that the alternative configuration maintains the overall extent of the *buffers** and provides equivalent or greater environmental *protection** than Indicator 6.7.5 (without 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.

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

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

Federal Lands Supplement1 to Indicator 6.7.7 (New) The applicable Federal agency has an active program and plan for prioritizing and resolving legacy issues related to water protection.

Federal Lands Supplement2 to Indicator 6.7.7 (Based on existing DOD/DOE Supplement3 to Criterion 4.4) For *Management Units** that have a history of use and/or disposal of hazardous materials, munitions, and/or other military or industrial activities, the *Organization** mitigates the negative effects to water quality that might accrue from these activities.

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

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

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

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

Intent: This *Indicator** focuses on recreation use and not recreation trails, which are covered in Indicators 6.7.4 and 10.10.1. Unauthorized use of vehicles on the *Management Unit** is considered trespassing, which is an illegal activity and should be addressed accordingly.

Guidance: This includes on-trail and off-trail recreation use. Recreation use includes but is not

limited to: motorized and non-motorized vehicles, horses, hiking, and mountain biking.

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

Federal Lands Supplement1 to indicator 6.7.9 (*Existing USFS Supplement to Indicator 6.5.h*) Grazing by domesticated animals is managed to minimize and mitigate adverse effects such as altering natural fire regimes, facilitating the spread of *invasive species**, harming *native species** and degrading *riparian** and aquatic systems.

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

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

Federal Lands Indicator 6.7.10 (*Existing USFS Indicator 6.5.1*) Watershed analyses are conducted to determine the conditions of watersheds within the *Management Unit** and to identify priority watersheds for *restoration** and maintenance.

Federal Lands Indicator 6.7.11 (*Existing USFS Indicator 6.5.2*) Plans are developed and implemented to maintain or restore *riparian** habitat and the ecological integrity of aquatic ecosystems and watersheds, including function, *connectivity** and composition. The plans take into account potential stressors such as climate change and social, cultural and economic impacts.

Federal Lands Indicator 6.7.12 (*Existing USFS Indicator 6.5.3*) Staff of the applicable Federal agency coordinates with other federal, state, local and tribal managers, and with other affected water managers and users to ensure appropriate resource *protection** (see also Federal Lands Supplement1 to Indicator 8.2.1).

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

Indicator 6.8.1 *The Organization** maintains, enhances, and/or *restores** a mosaic of *species** and underrepresented *successional** stages that would naturally occur on the types of sites 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.

Federal Lands Supplement to Indicator 6.8.1 (New) Old growth and other underrepresented successional stages are expanded in distribution.

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

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

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

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

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

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

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

CONSULTATION QUESTIONS: The SDG considered reducing the minimum threshold for defining Type 2 Old Growth stands and forests on Federal Lands. The current definition that is applicable to all certified lands defines Type 2 old growth with a minimum threshold of 20 acres. The SDG is requesting feedback on reducing this threshold to something smaller for Federal lands, so that smaller stands of Type 2 old growth would be protected from harvest per Indicator 6.8.2.

- **Is this scale (20 acres) feasible for identifying and protecting Type 2 Old Growth within the forest types and region(s) in which you have experience? Would a finer scale (<20 acres) be feasible?**
- **If, “No” to either of the above questions, what are the situations that would make identifying and protecting Type 2 Old Growth at this scale or a finer scale difficult or infeasible? In your experience, are these situations equally applicable to Federal and non-Federal lands?**

Federal Lands Supplement to Indicator 6.8.2 (Existing USFS Supplement to Indicator 6.3.a.3) Areas that are likely old growth are identified.

Federal Lands Guidance for **Federal Lands Supplement to Indicator 6.8.2:** Prior to implementing any *management activities** within these areas, *The Organization** is expected to identify *Type 1 old growth** and *Type 2 old growth* stands* and forests** at the scale they are defined to ensure conformance with base Indicator 6.8.2 and Principle 9.

Indicator 6.8.3 Where there are regionally specific maximum opening sizes (both average and absolute) per Indicator 6.6.5, and rotation lengths meet or exceed *culmination of mean annual increment** for *natural forest** stands of similar *forest** type and site class, maximum opening sizes (both average and absolute) may be increased by 20% above those specified. For each 10-year increase in rotation length, opening sizes may be increased by an additional 20%.

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

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

C6.9 *The Organization** shall not convert natural forest to *plantations**, nor natural forests

or *plantations** on sites directly converted from natural forest to non-forest* land use, except when the conversion:

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

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

Intent: All three circumstances must be met in order for *conversion** to be allowed.

Guidance on “*conversion**”: In general, improvements to land (including provision of utilities, improved roads, and surveyed blocks) that are likely to result in development are considered precursors to *conversion**. Advanced cases of improvements are considered *conversion**. For example, surveying and demarcating the land in and of itself does not constitute *conversion**, but installation of roads to each parcel is considered *conversion**. Although it may be difficult to distinguish some *management activities** that are geared toward development from acceptable *silvicultural** prescriptions (e.g., “real estate cuts” versus “shelterwood cuts”), it is the responsibility of the *The Organization** to disclose the future goals for that management to the *Certification Body**.

Note that the following are not considered to be *conversion** per Indicator 6.9.1: Restoration plantations established on degraded, *semi-natural forests**; and *plantations** established on former *plantations**, on agricultural lands, and on non-forested lands that were historically naturally forested, but have been used for non-forest purposes since before 1994 (see additional conditions in Criterion 6.10).

Definition of “non-forest land”: Non-forest land consists of land that is managed for reasons other than the production of *forest** products, values, or amenities. Non-forest land includes land that does not classify as a *forest* ecosystem** (including old agricultural fields, grasslands). “Non-forest land uses” include land that is forested, but current zoning and/or conditional use permits present intentions for future conditions of the land that will result in the loss of, or degradation of, production of *forest** products, values, or amenities (e.g., commercial or industrial development, residential use).

Indicator 6.9.1 There is no *conversion** of *natural forest** or *semi-natural forest** to *plantations**, nor *conversion** of *natural forest** or *semi-natural forests** to non-forest land use, nor

*conversion** of *plantations** to non-forest land use when on sites directly *converted** from *natural forest** or *semi-natural forest**, except when the *conversion**:

- a. affects a *very limited portion** of the *Management Unit**;
- b. will produce clear, substantial, additional, secure, *long-term* conservation** benefits in the *Management Unit**; and
- c. does not damage or threaten *High Conservation Values**, nor any sites or resources necessary to maintain or enhance those *High Conservation Values**.

Applicability: Lands that are *converted** for *forest** management purposes (e.g., roads, landings, management buildings) are not included in calculations of the *very limited portion** of the *Management Unit** .

*Plantations** may be established on *forest** sites that lack the vast majority of the native *forest* ecosystem** components, as these lands do not fit the definitions of *natural forest** or *semi-natural forest**. Guidance for classifying forests as *natural forest** or *semi-natural forest** vs. *plantation** is provided in Annex I.

Intent of “clear, substantial, additional, secure, *long-term* conservation** benefits across the *forest* Management Unit**”: Conditions that enable these *conservation** benefits are limited by the following:

- *The Organization** provides documentation that any *conversion** to non-forest uses will result in additional *conservation** and/or *restoration** of *natural forest**, particularly *High Conservation Value Areas** and/or *rare, threatened, and endangered species* habitats**, at levels above and beyond those otherwise required by this Standard, and carries out that increased *conservation** and *restoration**.
- Negative environmental impacts of *conversion** to non-forest uses may be offset through compensatory *management activities**. The *conservation** benefits used to offset *conversion** to non-forest use must lead to equal or greater *conservation** values than those lost by the *conversion**. The compensatory activities may include establishment of conservation easements, contributions to local land trusts, transfer of lands to land trusts or public ownership, etc.
- In general, maintenance of an FSC certificate for the remainder of *forest** lands does not constitute sufficient *conservation** benefit.

Indicator 6.9.2 Areas *converted** to non-forest use for facilities associated with severed rights that were transferred or retained by prior owners, or with other *conversion** outside the control of *The Organization** , are identified on maps. *The Organization** consults with the *Certification Body** to determine if removal of these areas from the scope of the certificate is warranted. To the extent allowed by these transferred rights, *The Organization** exercises control over the location of surface disturbances in a manner that minimizes adverse environmental and social impacts.

If *The Organization** at one point held these rights and then sold them, subsequent *conversion**

of *forest** to non-forest use would be subject to Indicators 6.9.1. and 6.9.2.

Applicability: This *Indicator** applies to situations where *The Organization** holds the surface rights to lands where other individuals or organizations also have the right to implement activities, such as 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). In these situations, while the other *rights holder** has the right to implement certain activities, *The Organization** may still be able to set some expectations for how the activities will be implemented and/or for *restoration** after they are completed.

Guidance: If the *conversion** will result in significant loss of *forest** resources, and where financially feasible, then *The Organization** should make a *good faith** effort to buy the rights before *conversion** occurs.

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

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

Applicability: This *Criterion** only applies to *plantations** established in areas converted from *natural forests** or *semi-natural forests**. *Plantations** that are established in other *ecosystems** (steppe, grassland, etc.) are not covered by this *Criterion**. See additional conditions regarding *plantation** establishment on rare or threatened non-forest *habitats** in Criterion 6.9.

Intent: The November 1994 cutoff date refers to the date of *conversion**, not the date of *plantation** establishment. The subsequent requirements do not address *plantation** areas (or *harvested units**) that have been harvested and replanted as *plantations** since 1994 if the date of *conversion** was prior to the cutoff date.

Indicator 6.10.1 Based on *Best Available Information**, accurate information related to prior land use and *forest** type present before and after *conversion** is compiled on all *conversions** from *natural forest** or *semi-natural forest** since 1994. Information includes:

- a. maps and/or photographs noting location of *converted** land;
- b. description of previous and current conditions including *forest** community types, size class and/or *successional** stages, and reason for *conversion**; and
- c. acres *converted**.

Indicator 6.10.2 Areas converted from *natural forest** or *semi-natural forest** to *plantation** since November 1994 are not certified, except where:

- a. *The Organization** provides clear and sufficient evidence that it was not directly or indirectly responsible for the *conversion**; or
- b. the *conversion** is producing clear, substantial, additional, secure, *long-term** *conservation** benefits in the *Management Unit**; and the total area of *plantation** on sites converted from *natural forest** or *semi-natural forest** since November 1994 is a *very limited portion** of the *Management Unit**.

Indicator 6.10.3 For *plantations** established in areas converted after 1994 per (a) in Indicator 6.10.2, *The Organization** develops and implements a plan to *restore** the *plantation* stands** to *natural forest** or *semi-natural forest** and to manage those *stands** in compliance with all *Indicators** of Principles 1–10 as quickly as feasible. A *very limited portion** of the *Management Unit** may remain *plantation** (consistent with (b) of Criterion 6.10).

Applicability: This *Indicator** is only applicable to those conditions where the current owner or manager was not responsible for the *conversion** as stipulated in Indicator 6.10.2.

Intent: This *Indicator** limits certification of *plantations** established in areas *converted** from *natural forest** or *semi-natural forest** after November 1994.

Guidance: Younger *plantations** with significant capital invested may need to be managed with a moderate level of intensity to recoup investment before full or significant *restoration** measures are fully implemented. In these cases, *restoration** may be phased in as *stands** reach merchantable ages. Contractual supply obligations and binding supply agreements are generally not acceptable as rationale for delaying *restoration**.

Examples of activities that are carried out in restoration plantations include:

- modification of the *management plan** from commercial to *restoration**;
- enrichment plantings of *native species**;
- management of *soils** and coarse *woody debris** to restore or enhance *soil** fertility;
- *restoration** and/or enhancement of native wildlife *habitats**;
- *restoration** and/or enhancement of *structural diversity** by recruiting mid-story and/or understory components;
- control of unwanted vegetation, limited to levels that allow *restoration** of *native species**;
- *restoration** of the fire regime common to natural *stands**, when feasible.

PRINCIPLE 7: MANAGEMENT PLANNING

***The Organization** shall have a *management plan** consistent with its policies and *objectives** and proportionate to *scale**, *intensity**, and *risks** of its *management activities**. The *management plan** shall be implemented and kept up to date based on monitoring information in order to promote *adaptive management**. The associated planning and procedural documentation shall be sufficient to guide staff, inform *affected stakeholders** and *interested stakeholders**, and to justify management decisions. (P7 P&CV4)**

Intent: This *Principle** is intended to ensure that management of the *Management Unit** is described in a comprehensive *management plan**. The plan should be developed with expertise and public input appropriate to the *scale** of the operation. The *management plan**, and the process of its development, should embody and consider all of the *Principles** and *Criteria** in this Standard.

The *management plan** may consist of a variety of documents or an umbrella document that describes how a collection of management documents relate to an integrated strategy for managing the *forest**. This may include a combination of ownership-level plans, unit plans, site-level plans (e.g., harvest plans), GIS, published guidelines (e.g., regional *silviculture** or *best management practice** guides), landowner policies, and other information.

Guidance on *scale** and *intensity** of operations: All *management plans**, regardless of the *scale** and *intensity** of operations must address the Indicators of Criterion 7.1 and Criterion 7.2 unless otherwise noted below.

C7.1 *The Organization shall, proportionate to *scale**, *intensity**, and *risk** of its *management activities**, set policies (visions and values) and *objectives** for management, which are environmentally sound, socially beneficial, and economically viable. Summaries of these policies and *objectives** shall be incorporated into the *management plan** and publicized. (C7.1a P&C V4)**

NOTE: Federal lands supplementary requirements are proposed for Indicators 7.1.2, 7.2.6, 7.2.14, and 7.6.4. A supplementary indicator is proposed in Criterion 7.6. Additionally, Federal lands-specific guidance is proposed for Indicator 7.4.1.

Intent: Criterion 7.1 ensures that a written *management plan**, as described in the *Principle**-level intent and guidance above, exists for the *Management Unit** within the scope of the certificate. The *management objectives** detailed in the plan are specific, achievable, measurable, and adaptive. They are also sufficient to meet the requirements of this Standard.

Whenever the term “*management plan**” is used, it refers to any combination of documents

and systems that meet the intent of the *Indicator**.

Indicator 7.1.1 *Visions and values** and associated policies contribute to meeting the requirements of this Standard, and are summarized in the *management plan**.

Indicator 7.1.2 The *management plan** describes: a) current conditions of the timber and non-timber *forest** resources being managed; b) *historic conditions**; c) *desired future conditions**; and d) applicable *management objectives** to move the *Management Unit** toward *desired future conditions**, including those to achieve compliance with the Standard.

Federal Lands Supplement1 to Indicator 7.1.2 (*DOD/DOE Supplement1 to Criterion 7.1 Item a*) The management objectives found in tribal, state, regional and/or community plans for conservation, protection, and restoration, adopted by agencies are considered by *The Organization** during development and revision of the *management plan**.

Federal Lands Supplement2 to Indicator 7.1.2 (*New*) Considerations for *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 (*New*) Management objectives incorporate the unique contribution of the federal lands in conservation of environmental values identified per the Federal Lands Supplement1 to Indicator 6.1.1 landscape-scale assessment.

Guidance: “Current conditions” are based on *forest** inventories or other information sources, as applicable. The level of detail in the plan may be a summary of the inventory data or more general in nature as indicated by the resource, and is commensurate with the resource and *intensity** of management (e.g., general descriptions of *water body** or *wetland** types and extent may suffice).

“*Desired future conditions**” are the characteristics that describe the *long-term** (e.g., 30–50 years) vision of the *Management Unit**, such as the amount and age or development class distribution of *forest** types, *species** composition, products, *habitats** and values, and other resources. *Desired future conditions** must be consistent with the requirements of this Standard.

The purpose of establishing *historic conditions** is to facilitate creating a baseline for assessing environmental impacts of operations, to facilitate establishing *desired future conditions**, and to determine when *restoration** may be needed. When *historic conditions** are not available, best estimates from available sources may be used. *Historic conditions** should be used as guidelines for estimating ecological components of naturally occurring conditions.

“*Management objectives**” are typically time specific, measurable results that correspond to the goals. It is acceptable for *The Organization** to include objectives in their *management plan** that are not specifically related to achieving conformance with the Standard, as long as those objectives do not conflict with the requirements of the Standard. Additionally, *The Organization** is not limited to implementing only those *management objectives** and activities that are described in the *management plan** (as long as additional objectives and activities are not in conflict with requirements of the Standard). However, *management plans** must be updated (even if the time period identified in Indicator 7.4.1 has not yet expired) when there is new information from monitoring, and incorporation of these other activities should be achieved at the same time.

*Forest** resources include timber, fish and wildlife, and *non-timber forest products**.

C7.2 *The Organization shall have and implement a *management plan** for the *Management Unit** which is fully consistent with the policies and *management objectives** as established according to Criterion 7.1. The *management plan** shall describe the natural resources that exist in the *Management Unit** and explain how the plan will meet the FSC certification requirements. The *management plan** shall cover *forest** management planning and social management planning proportionate to *scale**, *intensity**, and *risk** of the planned activities. (C7.1 P&C V4)**

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

Indicator 7.2.2 The *management plan** identifies the ownership and *legal** status of the *Management Unit** and its resources, including *rights** held by the owner(s) and established *rights** held by others (per Criteria 1.2, 3.1, and 4.1).

Guidance: *Legal** status information may be summarized in the *management plan** as appropriate to the *scale** and complexity of the ownership and the relevance of applicable *legal** constraints on *management activities**.

Ownership status includes ownership type (e.g., fee, easement, lease).

*Rights** held by others may include: *use rights**; *Indigenous Peoples** *rights**; conservation easements, deed restrictions, and other easements or *rights** held by others; and leasing arrangements.

Indicator 7.2.3 The *management plan** describes the history of land use and past management, current *forest** types and associated size class and/or *successional** stages, and *natural disturbance regimes** that affect the *Management Unit** (per Indicator 6.1.1).

Guidance: This *Indicator** refers to information already compiled in Indicator 6.1.1.

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

Indicator 7.2.4 (New) The *management plan** considers the potential impact of climate change–related risks and vulnerabilities on achievement of *management objectives** and *desired future conditions**, and describes what *climate change adaptation strategies**, if any, are being implemented to address identified impacts.

Guidance: Considerations should address the *Best Available Information** (per the Climate Change Toolkit in Annex L), acknowledge that response plans for future disturbances may be beyond historic parameters, and identify if climate change–related changes in conditions are likely within the timeframe of a given management decision (e.g., rotation length).

*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. The types of strategies implemented by *The Organization**, if any, will likely be influenced by the information available to *The Organization** and its *management objectives**.

Indicator 7.2.5 The *management plan** includes a description of the *landscape** within which the *Management Unit** is located and describes how *landscape**-scale *habitat** elements described in Criterion 6.8 will be addressed.

Guidance: The *landscape** description and *landscape** *management objectives** consider elements such as:

- land uses and trends in the surrounding *landscape**;
- a general description of *forest**-ownership types and parcel sizes in the *landscape**;
- *forest** types, type of management, and general condition of *forests** within the *landscape**;
- significant *water bodies** and other features that cross the *Management Unit** boundary;

- diversity of *habitats** across the ownership, as indicated by *forest* type; and
- *species** or *species** groups that may be significantly affected by *habitat** loss or fragmentation on the *Management Unit**.

Indicator 7.2.6 The *management plan** includes a description of the following resources and outlines activities to *conserve**:

- a. *rare, threatened, and endangered species** and natural communities (per Criterion 6.4);
- b. plant *species** and community diversity and wildlife *habitats** (per Criterion 6.6);
- c. water resources (per Criterion 6.7);
- d. *soil** resources (per Criterion 6.7);
- e. *Representative Sample Areas** (per Criterion 6.5); and
- f. other special management areas.

Federal Lands Supplement to Indicator 7.2.6 (New) The management plan identifies opportunities for and activities to initiate restoration of broad scale ecological processes (i.e., natural fire regimes, successional patterns, flooding) that are no longer present in the landscape in a substantially unmodified condition.

Guidance: The *management plan** should have sufficient detail to describe the current resources and how *The Organization** complies with the referenced Criteria .

The *management plan** may reference supporting guidelines and policies that describe specific management practices. Site-specific information and practices may be included in operational plans.

Indicator 7.2.7 The *management plan** describes the *High Conservation Value** assessment results and the *management strategies** necessary to ensure the maintenance and/or enhancement of all *High Conservation Values** (per Principle 9).

Indicator 7.2.8 If *invasive species** are present, the *management plan** describes *invasive species** conditions and applicable *management objectives**, and summarizes the *invasive species** prevention and control strategies (per Indicator 6.6.4).

Guidance: The plan may reference supporting guidelines and policies that describe specific management practices.

Indicator 7.2.9 The *management plan** describes how current or anticipated impacts of insects and diseases on *forest** conditions and *management objectives** will be addressed (per Criteria 10.7 and 10.8).

Intent: Disease may include biotic factors (e.g., fungi and other pathogens) and abiotic factors (e.g., acidic deposition).

Guidance: Potential impacts on stocking or harvest are described.

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

This description is commensurate with the likelihood of outbreaks or infestations.

Indicator 7.2.10 If *pesticides** are used, the plan describes how the management system conforms with Criterion 10.7.

Indicator 7.2.11 If *biological control agents** are used, the *management plan** describes how the management system conforms with Criterion 10.8 .

Indicator 7.2.12 The *management plan** incorporates the results of the evaluation of social impacts, including:

- a. traditional cultural resources and *rights** (per Criteria 3.1 and 4.1);
- b. potential conflicts with *rights** (per Criteria 1.2, 3.2, and 4.2);
- c. management of ceremonial, archeological, and historic sites (per Criteria 3.5 and 4.5);
- d. management of *aesthetic** values (per Indicator 4.5.1);
- e. public access to and use of the *forest** and other recreation issues; and
- f. local and regional socioeconomic conditions and economic opportunities, including creation and/or maintenance of quality jobs (per Criterion 2.4 and Indicator 4.3.1), *local** purchasing opportunities (per Indicator 4.3.1), and participation in *local** development opportunities (per Indicators 4.4.1 and 5.4.2).

Indicator 7.2.13 The *management plan** describes the general purpose, condition, and maintenance needs of the *transportation system** (see Indicator 6.7.4).

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

Indicator 7.2.14 The *management plan** describes the *silvicultural** and other management systems used and how they will sustain, over the *long term**, *forest ecosystems** . For *plantations**, this includes describing the relationship between the *plantations** and *natural forest conservation** and *restoration** objectives within the *management unit**.

Federal Lands Supplement to Indicator 7.2.14 (*DOD/DOE Supplement 1 to Criterion 10.1*) If the *Management Unit** contains *plantations** on *forest soils**, then the *management plan**

includes a strategy and implementation plan for restoring the *plantations** to *natural forest** or *semi-natural forest** per PL Indicator 6.6.2.1.

Guidance: Per Indicator 5.2.3, *The Organization** must use *silvicultural** management systems that improve or maintain health and quality across the *management unit**; per Indicator 10.1.2, regeneration must be to pre-harvest or more *natural conditions**; and per Indicator 10.5.1, *silvicultural** practices must be ecologically appropriate for the site and *management objectives**. The requirements of these *Indicators** help to ensure that management systems sustain *forest* ecosystems** over the *long term**.

Harvesting practices that do not improve or maintain health and quality of the residual *stand** and the regeneration of potential future *stands**, and that are driven by short-term economic gain, can be collectively referred to as “exploitative” harvests. These kinds of practices will not sustain *forest* ecosystems** over the *long term** and do not meet the requirements of Indicator 5.2.3, Indicator 10.1.2, Indicator 10.5.1, nor Indicator 7.2.14. “High-grading” is one broad type of exploitative harvesting where the highest-value trees are removed without regard for the residual *stand** or regeneration objectives. Other exploitative practices are commonly referred to as a “commercial clearcut” and “selective harvest,” but such terms may also be mistakenly applied to acceptable *silvicultural** practices. The implementation of diameter-limit harvests also can have results that do not achieve the outcomes required by this Standard. However, these terms are difficult to quantify and vary in their usage across the US. The terms are less important than the outcomes achieved.

“Other management systems” refers to management systems where the primary objective is not timber production, such as *restoration** areas in *plantations**.

Indicator 7.2.15 The *management plan** describes how harvest rate calculations were developed to meet the requirements of Criterion 5.2.

Guidance: The *management plan** describes the methods used to calculate the harvest level, and describes how that level is consistent with the composition, structures, and functions of the *Management Unit** in accordance with Criterion 6.6 and other applicable *Criteria**.

Indicator 7.2.16 The *management plan** includes a description of monitoring procedures necessary to address the requirements of Criterion 8.2.

Indicator 7.2.17 The *management plan** includes maps describing the resource base, the characteristics of general management zones, special management areas, *restoration** areas, *conservation zones**, and *protected areas** at a level of detail to achieve *management objectives** and *protect** sensitive sites.

Intent: “Sensitive sites” is used in reference to sites that are more sensitive and vulnerable to impact from the types of *forest** management practices that will occur on the *Management Unit**.

Guidance: Depending on the map scale (e.g., *forest**-level vs. *stand**-level) and purpose and *intensity** of management, maps should include:

- property boundaries and ownership;
- roads and trails;
- planned *management activities**, including *forest** product harvest areas;
- *forest** types by *age class**;
- topography, *soils**, water courses, and *water bodies**;
- wetlands and *riparian areas** ;
- archeological and cultural sites and customary use areas;
- locations of unique and sensitive natural communities, *habitats**, and features;
- *rare, threatened, and endangered species**;
- *Representative Sample Areas**; and
- designated *protected areas** and *High Conservation Values** .

The location of sensitive sites (e.g., rare plants or archaeological sites) need not be made publicly available to *protect** the resource.

Indicator 7.2.18 The *management plan** describes the stakeholder consultation process.

Indicator 7.2.19 The *management plan** includes estimates of benefits and costs related to social, economic, and environmental impacts of *management activities** (i.e., *externalities** per Indicator 5.3.1).

Indicator 7.2.20 Activities undertaken on the *Management Unit** are consistent with the *management plan**.

C7.3 The *management plan** shall include *verifiable targets** by which progress towards each of the prescribed *management objectives** can be assessed. (new)

Indicator 7.3.1 *Verifiable targets** are established for each *management objective** and are used as the basis for monitoring, as described in Principle 8.

Guidance: Targets are measurable (where possible), address short-term and *long-term** time frames (as applicable), and each is supported by a rationale, including underlying assumptions.

C7.4 The Organization* shall update and revise periodically the management planning and procedural documentation to incorporate the results of monitoring and evaluation, stakeholder *engagement**, or new scientific and technical information, as well as to respond to changing environmental, social, and economic circumstances. (C7.2 P&C V4)

Indicator 7.4.1 The *management plan** is kept up to date. It is reviewed on an ongoing basis and is updated to incorporate results of monitoring or new scientific and technical information or *stakeholder* engagement**, as well as to respond to changing environmental, social, and economic circumstances. The *management plan** is reviewed and revised at least every 10 years (unless a longer planning period is a statutory requirement, but not to exceed 15 years).

Intent: The rigor of the review and update is contingent upon the *scale** and *intensity** of management, and updates should focus on those aspects of the *management plan** where changes are necessary.

It is not the intent that a hard-copy *management plan** is re-written every time there is a harvest or a natural disturbance (wildfire or pest infestation) on some part of the *Management Unit**. When the impact is large enough to require changes in management strategy, it may require revision of specific parts of the *management plan**.

Reasons for modifying the *management plan** may include but are not limited to: 1) in response to, and to incorporate, the results of monitoring as outlined in Principle 8; 2) whenever changes are proposed to the plan's primary objectives or management system; 3) whenever a significant environmental impact, threat or natural disturbance occurs; 4) whenever significant changes in uses of the *Management Unit** occur; and 5) when there are significant changes in socioeconomic circumstances.

The management system may incorporate ongoing and dynamic processes or data such as GIS.

Federal Lands Guidance for **Indicator 7.4.1** (*Existing USFS Guidance for Indicator 7.2.a*): The management plan is expected to be maintained in accordance with the applicable Federal agency's guidelines.

C7.5 The Organization* shall make *publicly available** a summary of the *management plan** free of charge. Excluding *confidential information**, other relevant components of the *management plan** shall be made available to *affected stakeholders** on request, and at cost of reproduction and handling. (C7.4 P&C V4)

Intent: The owner or manager of a private *forest** may withhold proprietary information (e.g., timber volumes by size and *age class**, marketing strategies, and other financial information)

but is required to share information from the plan that informs *stakeholders** of *management activities** and implementation of the *Principles**, *Criteria**, and *Indicators** found in this Standard.

Indicator 7.5.1 While respecting *confidential information**, the *management plan** or a *management plan** summary that outlines the elements of the plan described in Criterion 7.1 and Criterion 7.2 is available to the public at no charge.

Guidance: See Criterion 8.4 for more information on respecting landowner confidentiality and what is acceptable to provide in a public summary. Limited elements of the plan may be excluded to protect the security of environmentally sensitive and/or proprietary information.

When possible, *The Organization** should post a summary of the *management plan** on their website, but at a minimum, this summary is made available upon request.

Information that is considered confidential can be presented in such a way as to protect its confidentiality, including data on production, inventory, growth, costs of operation, and other information deemed to provide a competitive advantage or proprietary in nature. This information can be represented in the public summary as trends, percentages, or in terms of its relation to the goals and limits outlined in the *management plan**.

Indicator 7.5.2 While respecting *confidential information**, relevant components of the *management plan** are provided upon request to *affected stakeholders**, at cost for reproduction and handling.

Indicator 7.5.3 For *public lands**, *The Organization** makes draft and final *management plans**, revisions, and supporting documentation easily accessible for public review and comment prior to their implementation. *The Organization** addresses public comments and modifies plans to ensure compliance with this Standard.

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

C7.6 *The Organization** shall, proportionate to *scale**, *intensity**, and *risk** of *management activities**, proactively and transparently engage *affected stakeholders** in its management planning and monitoring processes, and shall engage *interested stakeholders** on request. (C4.4 P&C V4)

Intent: Engagement with *stakeholders** in monitoring processes is addressed per Indicator 8.2.2 and is therefore not addressed in the *Indicators** of this *Criterion**.

Guidance: *The Organization** is expected to “consider in good faith” management planning input provided by *stakeholders** and *rights holders**. This means that *The Organization** must honestly consider whether the input can be addressed in planning, 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**. Input regarding *legal** rights must also be considered from the perspective of ensuring that the *rights** are not violated.

*The Organization** is encouraged to document significant *stakeholder** input and how it was used or why it was not used, and then respond directly to the *stakeholder** with this information.

Indicator 7.6.1 *The Organization** seeks and considers in good faith input in management planning from *affected stakeholders** and *affected rights holders**.

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

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

Guidance: To apprise likely affected neighbors and other *stakeholders** of specific management operations, *The Organization** may post signs or other measures that are readily noticeable by likely *affected stakeholders** but that do not necessarily require direct communication. Some situations may warrant direct communication.

Advance notice should be within a time frame appropriate to the situation.

Indicator 7.6.3 Upon 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.

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

- a. Clearly defined and accessible methods for public participation are provided in both short term and *long term** planning processes, including harvest plans and operational plans.
- b. 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.
- c. An accessible appeals process to planning decisions is available.

Federal Lands Supplement1 to Indicator 7.6.4 (New) 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 (Existing USFS Supplement to Indicator 4.4.d)

An engagement strategy is developed and implemented, and includes:

- a. a written plan for early and ongoing engagement with the public, and
- b. methods for engaging diverse audiences, including *Native American** groups, youth, low-income and underrepresented communities, and local, regional and national audiences.

Applicability: This Indicator only applies to *public lands**.

Intent: FSC certification does not preclude any individual or group from seeking legislative or judicial relief.

Guidance: *Interested stakeholders** may be wide-ranging geographically.

*Public engagement** should be accessible to individuals, organizations, and other social units that could be affected economically, environmentally, or socially by *management activities** on the *Management Unit**. This minimally includes all citizens of the relevant entity (county, city, state or nation).

Federal Lands Indicator 7.6.5 (Existing USFS Indicator 4.4.1) 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.

PRINCIPLE 8: MONITORING AND ASSESSMENT

***The Organization** shall demonstrate that progress toward achieving the *management objectives**, the impacts of *management activities**, and the condition of the *Management Unit** are *monitored** and evaluated proportionate to the *scale**, *intensity**, and *risk** of *management activities**, in order to implement *adaptive management**. (P8 P&C V4)**

NOTE: Federal lands supplementary requirements are proposed for Indicators 8.2.1 and 8.3.1. Additionally, a supplementary indicator is proposed in Criterion 8.2.

Intent: A key aspect of *forest** management is monitoring to ensure that current conditions are known and can be compared with *desired future conditions** and *management objectives**, and as necessary to adjust management techniques to address social, economic, or environmental effects. Monitoring ensures that management, conservation, and *restoration**

objectives continue to be met as effectively as possible, even given unanticipated outcomes and/or changing conditions. Principle 8 is concerned with design and implementation of the monitoring program. Principle 8 also identifies requirements that enable an FSC *chain-of-custody** to operate.

Monitoring programs should be designed appropriate to the *scale** and *intensity** of *forest** management. The monitoring protocols required per Indicator 8.1.1 and Indicator 8.2.1 may consist of a variety of documents or an umbrella document that describes how a collection of monitoring documents relate to an integrated program for monitoring as required by this *Principle**. This may include a combination of ownership-level, unit, and/or site-level monitoring approaches, GIS, published guidelines, landowner policies, and other information.

Guidance: Monitoring should be focused on data 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**.

The monitoring protocol(s) should describe procedures and their frequency, and be sufficient to ensure that current conditions are known and can be compared with *desired future conditions** and *management objectives**.

Scale of Operations: *Medium** and *large** ownerships are expected to have systematic and robust data collections for resources that are affected by management, while smaller operations may have informal and qualitative requirements for data collection.

*Intensity** and frequency of operations: More and/or better data are needed for resources that are significantly or frequently altered (e.g., timber stocking composition and *stand** structure) than for those that are minimally impacted (e.g., *protected areas** where there are no operations).

C8.1 *The Organization shall *monitor** the implementation of its *management plan**, including its policies and *management objectives**, its progress with the activities planned, and the achievement of its *verifiable targets**. (new)**

Indicator 8.1.1 *The Organization** develops and consistently implements a regular and replicable written protocol to monitor its policies associated with *visions and values**, *management objectives**, and achievement of *verifiable targets** relevant to the Standard.

Indicator 8.1.2 The protocol, per Indicator 8.1.1, includes specific procedures to monitor and evaluate: a) how changes in the assessed potential impact of climate change–related risks and vulnerabilities may affect achievement of *management objectives** and *desired future*

conditions*; and b) the effectiveness of *climate change adaptation strategies** implemented to address identified impacts (per Indicator 7.2.4).

C8.2 The Organization* shall monitor* and evaluate the environmental and social impacts of the activities carried out in the Management Unit*, and changes in its environmental condition. (C8.2 P&C V4)

Indicator 8.2.1 *The Organization** develops and consistently implements a regular and replicable written protocol to monitor and evaluate the environmental and social impacts of *management activities** and changes in environmental conditions, aligned with Annex J.

Federal Lands Supplement1 to Indicator 8.2.1 (*Existing USFS Supplement1 to Indicator 8.2.d.1*) The efficacy of the watercourse *buffer** 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 (*Existing USFS Supplement to Indicator 8.2.d.3*) Socio-economic monitoring also includes:

- a. provision of *forest**-related employment and contracting opportunities (see also Indicator 7.2.12),
- b. indices of contractor and subcontractor compliance with applicable labor laws, and
- c. managed public access to, and use of, the *forest** for recreation and other permitted activities (see also Indicator 7.2.12).

Intent: Indicators 6.6.4, 9.4.1, 10.2.2, 10.3.2, 10.7.5, and 10.8.1 explicitly require monitoring and therefore must be addressed in the monitoring protocol. While the other elements of Annex J are not explicitly required, monitoring at some level (for applicable elements of Annex J) will most likely be needed for conformance with and/or demonstration of conformance with the rest of the Standard. Therefore, Annex J provides a structure to assist *The Organization** with developing its monitoring protocol.

Guidance: The frequency, scale and intensity of monitoring will be unique to the *Management Unit** due to its unique context and activities. Similar to the guidance for Indicator 8.1.1, the *scale**, *intensity**, and frequency of *management activities** that occur within the *Management Unit** will affect the level of monitoring needed for any particular element of Annex J. However, some level of monitoring will most likely be needed for all applicable elements. Non-applicable elements of Annex J are those associated with an activity or value that does not occur on the *Management Unit**, and/or values that occur outside of the management unit that are not affected by activities occurring on the *Management Unit**.

Federal Lands Intent for Indicator 8.2.1 (New): Federal Lands Supplement2 to Indicator 6.7.9, Federal Lands Supplement1 and Supplement2 to Indicator 8.2.1, and Federal Lands

Supplement to Indicator 10.9.1 explicitly require monitoring and therefore must be addressed in the monitoring protocol.

Federal Lands Guidance for **Federal Lands Supplement2 to Indicator 8.2.1 (New)**: Monitoring for item (b) may include data such as OSHA violations, lost-time incident rates, Better Business Bureau complaints, and/or stakeholder complaints to *The Organization*, and may also include in-field observations by *The Organization*.

Indicator 8.2.2 *The Organization** seeks input in monitoring processes from *affected stakeholders**, and engages *interested stakeholders** on request. When stakeholder input on monitoring and/or responses to *management activities** are received, they are considered in good faith.

Guidance: *The Organization** is expected to “consider in good faith” monitoring input provided by *stakeholders** and *rights holders**. This means that *The Organization** must honestly consider whether the input can be addressed through the monitoring program, whether it is aligned with the Standard and can be achieved without detracting from *The Organization’s** ability to conform with the rest of the Standard (including Indicator 5.5.1’s requirement for ensuring *long-term* economic viability**), whether it conflicts with input received from other *stakeholders** and/or *experts**, and whether it is feasible given the ecological context of the site and/or *management unit**.

*The Organization** is encouraged to document significant *stakeholder** concerns and how the input was used or why it was not used, and then respond directly to the *stakeholder** with this information.

Indicator 8.2.3 For cultural sites identified per Indicator 3.5.1 that are significant to a *Native American** group and for which the *Native American** group holds *rights**, the opportunity to jointly monitor the sites is offered to *tribal** representatives. Where feasible, the opportunity to jointly monitor other sites and resources of interest to a *Native American** group is also offered to *tribal** representatives.

Federal Lands Indicator 8.2.4 (Existing USFS Indicator 8.2.1) Monitoring includes the effectiveness of *restoration** strategies per the following indicators and supplementary requirements:

- a. Federal Lands Supplement to Indicator 6.4.3
- b. Indicator 6.5.2
- c. Indicator 6.6.1
- d. Indicator 6.6.3
- e. Indicator 6.6.7
- f. Indicator 6.7.1
- g. Indicator 6.7.7
- h. Federal Lands Indicator 6.7.11

- i. Indicator 6.8.1 and the Federal Lands Supplements to Indicator 6.8.1
- j. Federal Lands Supplement to Indicator 7.2.6, and
- k. Federal Lands Supplement¹ to Indicator 10.5.1.

C8.3 *The Organization shall analyze the results of monitoring and evaluation and feed the outcomes of this analysis back into the planning process. (C8.4 P&C V4)**

Indicator 8.3.1 Where monitoring indicates that *management objectives** and *verifiable targets** are not being met, or if changing conditions indicate that a change in management strategy is required for conformance with the Standard, the *management plan* is revised.

Federal Lands Supplement to Indicator 8.3.1 (New) When socio-economic monitoring per Federal Lands Supplement² to Indicator 8.2.1 indicates that expectations for the identified values are not being met, *The Organization** adapts its systems and/or processes to better achieve the expectations.

Intent: This *Indicator** requires that the results of monitoring be reflected in the implementation of the *management plan**. Revisions to the *management plan** as a result of monitoring are also addressed in Criterion 7.4 .

Indicator 8.3.2 If monitoring shows that the *management objectives** and *verifiable targets** are not sufficient to ensure conformance with this Standard, then they are modified.

Intent: This *Indicator** requires that the results of monitoring be reflected in the implementation of the *management plan**. Revisions to the *management plan** as a result of monitoring are also addressed in Criterion 7.4 .

C8.4 *The Organization shall make *publicly available** a summary of the results of monitoring free of charge, excluding *confidential information**. (C8.5 P&C V4)**

Indicator 8.4.1 While protecting *confidential information**, either full monitoring results or an up-to-date summary of the most recent monitoring information is readily available (per Criteria 8.1 and 8.2) and is available to the public, upon request, at no cost.

C8.5 *The Organization shall have and implement a tracking and tracing system proportionate to *scale**, *intensity**, and *risk** of its *management activities**, for demonstrating the source and volume in proportion to projected output for each year, of all products from the *Management Unit** that are marketed as FSC certified. (C8.3 P&C V4)**

Intent: *Chain of custody** (i.e., CoC) is an important aspect of the FSC system. For products claimed to be sourced from FSC-certified *forests**, *chain of custody** tracks certified products from the *forest** of origin throughout the supply chain. The critical first link in the supply chain, and the focus of this *Criterion**, is from the point of harvest to the transfer of ownership, and it is the responsibility of *The Organization** to maintain the integrity of certified products within this first link in the supply chain.

Indicator 8.5.1 When *forest** products, including *non-timber forest products**, are being sold as FSC-certified, *The Organization** implements a documented system to track and trace all products sold from the *Management Unit** until the point of ownership transfer .

Intent: This *Indicator** does not require *The Organization** to maintain a separate *chain of custody** certificate, but rather to be able to sell an FSC-certified product as certified to a *chain of custody** business. Tracking and tracing prevents the mixing of FSC-certified and non-certified *forest** products prior to the point of ownership transfer.

Guidance: The point of ownership transfer is also known as the “forest gate” and may be identified as, for example, the stump, on-site concentration yard, off-site mill/log yard, lump-sum sale/per unit/pre-paid agreement, or log landing.

Indicator 8.5.2 *The Organization** maintains records of forest products that are sold for a minimum of five years. Records adequately ensure that the requirements under Criterion 5.2 are met. Compiled information includes the following:

- a. *species** group;
- b. product name, description, or grade;
- c. volume (or quantity) of product;
- d. information to trace the material to the point of origin;
- e. date or timeframe when the product was harvested, hauled outside the forest gate, or delivered to the purchaser; and
- f. whether the material was sold or delivered as FSC-certified.

Guidance: Actual volumes are used for per unit sales and estimated volumes are used for lump-sum sales.

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

- a. name and address of purchaser;
- b. the date of ownership transfer;
- c. *species** group;

- d. product name, description, or grade;
- e. the volume (or quantity) of product sold;
- f. *The Organization's** certificate code; and
- g. the FSC claim "FSC 100%," identifying products sold as FSC-certified.

Where sales invoices do not accompany transportation of the product, transport documents and/or other documentation related to certified products track, at a minimum, the following information:

- a. *The Organization's** certificate code;
- b. identification of the purchaser and destination;
- c. the date of transport or delivery;
- d. *species** group;
- e. product name, description, or grade;
- f. the volume (or quantity) delivered;
- g. load or batch reference number; and
- h. reference linking the shipment to the sales invoice.

Guidance: Actual volumes are used for per-unit sales and estimated volumes are used for lump-sum sales. Transfer documents are synonymous with delivery documents.

In some situations, *The Organization** that holds the FSC Forest Management certificate and *The Organization** that holds the FSC Chain of Custody certificate are the same entity, and therefore a sales invoice is not generated for materials that are transferred from the Management Unit* to a primary manufacturing facility. In these situations, alternative documentation that contains the information detailed in Indicator 8.5.3, and that can be linked to the materials transferred, will need to be maintained for a minimum of five years.

PRINCIPLE 9: HIGH CONSERVATION VALUES*

***The Organization** shall maintain and/or enhance the *High Conservation Values** in the *Management Unit** through applying the *precautionary approach**. (P9 P&C V4)**

NOTE: Federal lands supplementary requirements are proposed for Indicators 9.1.1 and 9.2.3. Additionally, Federal lands-specific guidance is proposed for Principle 9.

Intent: *High Conservation Values** are managed to maintain or enhance their identified values. In some cases, active management is consistent with these attributes, and in other cases (e.g., *primary forests**), active management is specifically precluded.

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) may 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.

Federal Lands Guidance for **Principle 9** (Based on existing USFS Guidance for Indicator 4.4.d): As the 'public' for Federal lands is nationwide in scope, consultation and engagement with stakeholders is expected to be nationwide in scope. Therefore, stakeholder consultation and/or engagement associated with Principle 9 indicators is expected to involve stakeholders beyond those located in proximity to the *Management Unit**.

C9.1 The Organization*, through *engagement** with *affected stakeholders**, *interested stakeholders**, and other means and sources, shall assess and record the presence and status of the following *High Conservation Values** in the *Management Unit**, proportionate to the *scale**, *intensity**, and *risk** of impacts of *management activities**, and likelihood of the occurrence of the *High Conservation Values**:

HCV 1 – Species diversity. Concentrations of *biological diversity**, including endemic species and rare, threatened, or endangered species, that are *significant** at global, regional, or national levels.

HCV 2 – Landscape*-level ecosystems* and mosaics. *Intact Forest Landscapes** and large *landscape*-level ecosystems** and *ecosystem** mosaics that are *significant** at global, regional, or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.

HCV 3 – Ecosystems* and habitats*. Rare, threatened, or endangered *ecosystems**, *habitats**, or *refugia**.

HCV 4 – Critical* ecosystem services*. Basic *ecosystem services** in *critical** situations, including *protection** of water catchments and control of erosion of vulnerable soils and slopes.

HCV 5 – Community needs. Sites and resources fundamental for satisfying the basic necessities of *local communities** or *Indigenous Peoples** (for livelihoods, health, nutrition, water, etc.), identified through *engagement** with these communities or *Indigenous Peoples**.

HCV 6 – Cultural values. Sites, resources, *habitats**, and *landscapes** of global or national cultural, archaeological, or historical significance, and/or of *critical** cultural, ecological, economic, or religious/sacred importance for the traditional cultures of *local*

communities* or Indigenous Peoples*, identified through **engagement*** with these **local communities* or Indigenous Peoples***. (C9.1 P&C V4 and Motion 7:2014)

Indicator 9.1.1 A documented assessment is completed using *Best Available Information** that records the location and status of *High Conservation Values**, as defined in *Criterion** 9.1 and the *High Conservation Value Areas** on which they rely, in a manner consistent with the *High Conservation Value** Framework in Annex K. If *The Organization** learns of new applicable information, the assessment is updated to incorporate the information.

Federal Lands Supplement to Indicator 9.1.1 (*Existing USFS Indicator 9.1.1*) The applicable Federal agency solicits and considers public comments on the HCV assessment methodology.

Indicator 9.1.2 The assessment includes identification of *Intact Forest Landscapes** that existed within the *Management Unit** as of January 1, 2017.

Indicator 9.1.3 *The Organization** conducts *culturally appropriate* engagement** with affected *rightsholders**, *affected stakeholders**, and *interested stakeholders** and uses the resulting input in the assessment.

Indicator 9.1.4 For *public lands**, *The Organization** conducts a transparent and accessible public review of proposed *High Conservation Values**, *High Conservation Value Areas**, and *management strategies** (per Criterion 9.2). Relevant information from stakeholder consultations and other public review is integrated into *High Conservation Value** and *High Conservation Value Area** descriptions, delineations, and *management strategies**.

Applicability: This *Indicator** only applies to *public lands**.

Guidance: If it is not possible to integrate information received from stakeholder consultations and public review, *The Organization** should document the reason why it was not integrated. Examples of when this situation may occur include stakeholder recommendations that would not result in conformance with the Standard, stakeholder feedback that is in conflict with information received from other stakeholders and/or *experts**, recommendations that are infeasible given the ecological context of the site or *Management Unit**, etc.

C9.2 *The Organization** shall develop effective strategies that maintain and/or enhance the identified *High Conservation Values**, through *engagement** with *affected stakeholders**, *interested stakeholders**, and *experts**. (C9.2 P&C V4)

Indicator 9.2.1 *The Organization** identifies the threats to *High Conservation Values** and develops *management strategies** necessary to ensure *High Conservation Value** maintenance and/or enhancement consistent with the *High Conservation Value** Framework in Annex K.

Indicator 9.2.2 *The Organization** holds consultations with affected *rightsholders**, *affected stakeholders**, *interested stakeholders**, and *experts** to confirm that effective *management strategies** for the maintenance and/or enhancement of the *High Conservation Values** and *High Conservation Value Areas** have been adopted.

Guidance: *Experts** are normally independent, but may include employees of *The Organization** who possess the requisite expertise. However, external stakeholders with experience pertinent to the *High Conservation Value** must always be consulted.

Indicator 9.2.3 The *vast majority** of each *Intact Forest Landscape** identified per Indicator 9.1.2 is designated as *core area** and *management strategies** are developed to *protect** these *core areas**. The *management strategies** may allow limited *industrial activity** within *core areas**, but only if all effects of the *industrial activity**, including *fragmentation**:

- a. are restricted to a *very limited portion of the core area**;
- b. do not reduce the *core area** below 123,500 acres; and
- c. will produce clear, substantial, additional *long-term** environmental and social benefits.

Federal Lands Supplement to Indicator 9.2.3 (New) The entirety of each *Intact Forest Landscape** is designated as *core area**.

C9.3 *The Organization** shall implement strategies and actions that maintain and/or enhance the identified *High Conservation Values**. These strategies and actions shall implement the *precautionary approach** and be proportionate to the *scale**, *intensity**, and *risk** of *management activities**. (C9.3 P&C V4)

Indicator 9.3.1 *The Organization** implements the *management strategies** identified per Criterion 9.2. Any other *management activities** implemented in *High Conservation Value Areas** must maintain or enhance the *High Conservation Values** and the extent of the *High Conservation Value Area**, including defined *core areas** of *Intact Forest Landscapes**. All activities are implemented in a manner consistent with the *precautionary approach**. *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.

Indicator 9.3.2 *The Organization** responds immediately to mitigate negative impacts to *High Conservation Values** resulting from activities implemented by *The Organization** or others and actions are taken to *restore** and protect the *High Conservation Values**.

Intent: The goal of this *Indicator** is to address damaging activities (not just *management activities**) initiated by *The Organization**, or by others, that represent a threat of severe or irreversible damage. 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 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.

Indicator 9.3.3 If the *High Conservation Values*^{*} or the *High Conservation Value Areas*^{*} on which they rely cross ownership boundaries, and where *High Conservation Values*^{*} maintenance would be improved by coordinated management, *The Organization*^{*} attempts to coordinate conservation efforts with adjacent landowners.

C9.4 *The Organization*^{*} shall demonstrate that periodic monitoring is carried out to assess changes in the status of *High Conservation Values*^{*}, and shall adapt its management strategies to ensure their effective *protection*^{*}. The monitoring shall be proportionate to the *scale*^{*}, *intensity*^{*}, and *risk*^{*} of *management activities*^{*}, and shall include *engagement*^{*} with *affected stakeholders*^{*}, *interested stakeholders*^{*}, and *experts*^{*}. (C9.4 P&C V4)

Indicator 9.4.1 *The Organization*^{*} monitors, or participates in a program to periodically monitor, the status of the specific *High Conservation Values*^{*}, including the effectiveness of the *management strategies*^{*} for their maintenance or enhancement. The monitoring program is designed and implemented consistent with the *High Conservation Value*^{*} Framework in Annex K.

Intent: Except where *High Conservation Values*^{*} change rapidly or demonstrate ecological instability, or where site-disturbing *management activities*^{*} occur, annual monitoring of all *High Conservation Values*^{*} may not be necessary and/or may be combined with other field activities.

Guidance: *High Conservation Values*^{*} that are not managed and/or are not easily accessible may have a basic form of monitoring, but the monitoring needs to adequately allow *The Organization*^{*} to be able to evaluate whether the values are being impacted.

Indicator 9.4.2 *The Organization*^{*} includes *engagement*^{*} with affected *rightsholders*^{*}, *affected stakeholders*^{*}, *interested stakeholders*^{*}, and *experts*^{*} in its monitoring program.

Guidance: Engagement with *experts** will generally be during establishment of the monitoring program, although in some cases consultation with *experts** may be needed as part of implementing the program. For *rightsholders** and *stakeholders**, *engagement** should be part of both establishment and implementation of the monitoring program.

*The Organization** is expected to “consider in good faith” monitoring input provided by *stakeholders** and *rights holders**. This means that *The Organization** must honestly consider whether the input can be addressed through the monitoring program, whether it is aligned with the Standard and can be achieved without detracting from *The Organization’s** ability to conform with the rest of the Standard (including Indicator 5.5.1’s requirement for ensuring *long-term* economic viability**), whether it conflicts with input received from other *stakeholders** and/or *experts**, and whether it is feasible given the ecological context of the site and/or *Management Unit**.

*The Organization** is encouraged to document significant *stakeholder** concerns and how the input was used or why it was not used, and then respond directly to the *stakeholder** with this information.

Indicator 9.4.3 *Management strategies** are adapted when monitoring or other new information shows that these strategies are insufficient to ensure the maintenance and/or enhancement of *High Conservation Values**.

Intent: *Management strategies** are adjusted to the extent allowed by law.

Where risks to *High Conservation Values** are beyond the control of *The Organization** (e.g., acid deposition, *invasive species** that are impractical to control), the rationale for lack of action to address those risks is documented.

PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES

***Management activities** conducted by or for *The Organization** for the *Management Unit** shall be selected and implemented consistent with *The Organization**’s* economic, environmental, and social policies and *objectives** and in compliance with the *Principles** and *Criteria** collectively. (new)**

C10.1 After harvest or in accordance with the *management plan, *The Organization** shall, by natural or artificial regeneration methods, regenerate vegetation cover in a timely fashion to pre-harvesting or more *natural conditions**. (new)**

Indicator 10.1.1 Harvested sites are regenerated in a timely manner to maintain environmental values identified per Indicator 6.1.1.

Indicator 10.1.2 Regeneration activities are implemented in a manner that:

- a. for harvest of existing *plantations*^{*}, regenerate to the vegetation cover that existed prior to the harvest or to more *natural conditions*^{*} using ecologically well-adapted *species*^{*};
- b. for harvest of *natural forests*^{*} or semi-natural forests^{*}, regenerate to *pre-harvest*^{*} or to more *natural conditions*^{*}; or
- c. for harvest of degraded semi-*natural forests*^{*}, regenerate to more *natural conditions*^{*}.

Specific to the Southwest Region

Regional Supplement1 Regeneration is normally through natural regeneration. Artificial regeneration may be used as a supplement (e.g., to fill gaps, restore *species*^{*} diversity, for other *restoration*^{*}, or where seed trees are lacking).

Guidance: *Regeneration harvests*^{*} should create favorable conditions for natural seedling establishment (e.g., by considering seedbeds and light conditions, leaving seed trees upslope or upwind, and leaving seed trees with desirable phenotypic characteristics, such as straight boles and healthy crowns).

Specific to the Ozark-Ouachita Region

Regional Supplement2 Natural regeneration is used rather than plantings, except when necessary for *restoring*^{*} specific *habitats*^{*}, *stand*^{*} types, or *species*^{*}.

C10.2 *The Organization*^{*} shall use species for regeneration that are ecologically well adapted to the site and to the *management objectives*^{*}. *The Organization*^{*} shall use *native species*^{*} and *local genotypes*^{*} for regeneration, unless there is clear and convincing justification for using others. (C10.4 and C10.8 P&C V4)

Indicator 10.2.1 *Species*^{*} chosen for regeneration are ecologically well adapted to the site, are *native species*^{*}, and are of *local*^{*} provenance, unless written justification is provided for using non-*local*^{*} *genotypes*^{*} of the *native species*^{*}.

Intent: The goal of this *Indicator*^{*} is to maintain *local*^{*} genetic diversity.

Indicator 10.2.2 *The Organization*^{*} has the option to develop a plan to allow for the use of non-*native species*^{*} for regeneration when non-*local*^{*} *genotypes*^{*} of *native species*^{*} are either not adequate for maintaining or enhancing *local*^{*} diversity as part of *climate change adaptation strategies*^{*}, or not an option due to disease or pest vulnerabilities. A plan:

- a. prioritizes use of *non-native species** in the following manner:
 - i. *species** that are native to and sourced from the broader ecozone in which the *management unit** occurs;
 - ii. *species** that are native to and sourced from neighboring regions; and
 - iii. *species** that are native to and sourced from the North American continent.
- b. is based on *Best Available Information**, including peer-reviewed science that demonstrates that the performance of *non-native species** will result in greater benefit to wildlife, *water quality**, climate change adaptation, and other values compared to *native species**;
- c. includes a documented plan to carefully monitor *non-native species** to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts;
- d. is spatially and temporally explicit and includes maps of planted areas; and
- e. 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.

C10.3 *The Organization shall only use *alien species** when knowledge and/or experience have shown that any invasive impacts can be controlled and effective mitigation measures are in place. (C6.9 and C10.8 P&C V4)**

Intent: This *Criterion** applies to how *non-native species** are controlled and monitored when they are utilized, and includes all *non-native species**, including trees and other plants (e.g., herbaceous *erosion** control mixes or plants used for wildlife food and cover) and animals used in *forest** management.

Indicator 10.3.1 The use of *non-native species** is contingent on the availability of credible scientific data indicating that any such *species** is non-invasive and its application does not pose a risk to native *biodiversity**.

Intent: This *Indicator** also covers seed mixes and *species** used for *erosion** control.

Guidance: State lists of *invasive species** should generally be used as the basis for determining if a *species** is invasive. New cultivars, hybrids, and uncommon plants (e.g., some of those promoted for use on wildlife food plots) may not have been evaluated by state invasive plant councils. If such *species** and/or varieties are being used, then *The Organization** is expected to consult with a state *expert** in *invasive species**.

Unless evidence suggests otherwise, a *species** that is not identified as being invasive is assumed to not pose a risk to native *biodiversity**.

Indicator 10.3.2 If *non-native species** are used, their provenance and the location of their use are documented, their ecological effects are actively monitored and documented, and effective

mitigation measures are in place to control their spread outside the area in which they are established.

Guidance: Monitoring intensity reflects the persistence and risk posed by the *species** and may be justified by consultation with regional *experts** or literature.

Indicator 10.3.3 *The Organization** takes timely action to control any adverse impacts resulting from their use of *non-native species**.

Applicability: If *The Organization** is compliant with Indicator 10.3.1 and an outbreak of a *non-native species** occurs, then the outbreak of the *non-native species** does not constitute non-compliance with Indicator 10.3.2.

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

C10.4 *The Organization** shall not use **genetically modified organisms*** in the **Management Unit***. (C6.8 P&C V4)

Indicator 10.4.1 *Genetically modified organisms** (i.e., GMOs) are not used.

Intent: FSC-POL-30-602 *Genetically Modified Organisms** provides a definition and guidance on the interpretation of Indicator 10.4.1.

Genetically improved organisms (e.g., Mendelian crossed) are not considered to be *genetically modified organisms** (i.e., results of genetic engineering) and may be used. The prohibition of *genetically modified organisms** applies to all organisms, including trees.

C10.5 *The Organization** shall use silvicultural practices that are ecologically appropriate for the vegetation, species, sites, and **management objectives***. (new)

Indicator 10.5.1 *Silvicultural** practices are implemented that are ecologically appropriate (per Indicator 7.2.15) for the site and *management objectives**.

Federal Lands Supplement1 to Indicator 10.5.1 (New) For *restoration harvests**, the applicable Federal agency demonstrates that, prior to harvest:

- a. Both harvest and non-harvest restoration alternatives 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 native *ecosystem** values; and

- c. The alternative (per Item b) that best balanced positive and negative impacts was chosen, while also maintaining effectiveness.

Federal Lands Supplement2 to Indicator 10.5.1 (New) For salvage harvests, the applicable Federal agency demonstrates that, prior to harvest:

- a. Both harvest and non-harvest alternatives were considered and designed around restoration objectives;
- 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 lowest negative impact alternative (per Item b) was chosen.

C10.6 *The Organization** shall minimize or avoid the use of *fertilizers**. When *fertilizers** are used, *The Organization** shall demonstrate that use is equally or more ecologically and economically beneficial than use of *silvicultural** systems that do not require fertilizers, and prevent, mitigate, and/or repair damage to *environmental values**, including soils. (C10.7 P&C V4 and Motion 2014#7)

NOTE: Federal lands supplementary requirements are proposed for Indicators 10.5.1 and 10.9.1.

Applicability: Mitigation or repair of damage to environmental values (identified per Indicator 6.1.1) resulting from use of *fertilizer** is addressed through Indicator 6.3.3.

Indicator 10.6.1 The use of *fertilizers** is minimized or avoided. *Fertilizer** is applied only when all of the following conditions are met:

- a. *Soil** classification or foliar analysis indicates one or more nutrients are a limiting factor for *forest** productivity.
- b. The ecological benefits of using *fertilizers** are greater than the benefits of using *silvicultural** systems that do not require their use.
- c. The economic benefits of using *fertilizers** are greater than the benefits of using *silvicultural** systems that do not require their use.
- d. Where necessary, due to topography, *soils**, or other conditions, measures are taken to *protect** environmental values and prevent damage from *fertilizer** runoff or leaching. This includes preventing influences on native low-nutrient *ecological systems**, such as pitcher plant bogs, or on-ground and surface *water quality**, including through the use of *buffer zones**.
- e. *Fertilizer** application maintains or enhances *soil** condition and site productivity.
- f. *Fertilizer** types, rates, frequencies, and site of application are documented.

Guidance: *Fertilizer** use is normally avoided in *natural forests** and *semi-natural forests**.

C10.7 *The Organization shall use integrated pest management and *silviculture** systems which avoid, or aim at eliminating, the use of chemical *pesticides**. *The Organization** shall not use any chemical *pesticides** prohibited by FSC policy. When *pesticides** are used, *The Organization** shall prevent, mitigate, and/or repair damage to *environmental values** and human health. (C6.6 and C10.7 P&C V4)**

Applicability: Mitigation or repair of damage to environmental values (identified per Indicator 6.1.1) resulting from use of *pesticides** is addressed through Indicator 6.3.3.

Intent: This *Criterion** is guided by the FSC Pesticides Policy (FSC-POL-30-001 EN).

This *Criterion** and its *Indicators** require that *The Organization** strive to reduce the use of *chemical pesticides** and work toward their eventual phase-out whenever feasible, consistent with the *FSC Pesticides Policy*.

Guidance: A *pesticide** is any substance, or mixture of substances of chemical or biological ingredients, intended for repelling, destroying, or controlling any pest or regulating plant growth. This includes insecticides, rodenticides, acaricides, molluscicides, larvaecides, nematocides, fungicides, and herbicides. A *chemical pesticide** is any synthetically produced *pesticide**.

Per the FSC Pesticides Policy, *The Organization** is required to use *integrated pest management** to consider the different control techniques available to them and look for non-*pesticide** options, and more specifically non-*chemical pesticide** options, when they are economically feasible and will reduce *risks** to human and environmental health. 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 with the least *risk**, and then documentation of *risks** and mitigation associated with any *chemical pesticides** selected for use. These different components of an overall pest management approach are addressed by a number of *Indicators** in this *Criterion**, but may be addressed by *The Organization** in either a single document, or a collection of documents and documented information.

Indicator 10.7.1 *Integrated pest management (i.e., IPM), including selection of *silviculture** systems, is used to avoid, or aim to eliminate, the frequency, extent, and amount of *chemical pesticide** applications, and result in non-use or overall reductions in applications. Use of *integrated pest management** is documented.**

Intent: There is no termination point for the *integrated pest management**. The *integrated pest management** should continually aim to avoid and eliminate the use of *chemical pesticides** by considering information such as advancements in science and technology and market signals (i.e., those that make alternative control measures operationally or financially feasible).

Guidance: Strategies for controlling vegetation that minimize negative environmental effects may include: creation and maintenance of *habitat** that discourages pest outbreak; creation and maintenance of *habitat** that encourages natural predators; evaluation of pest populations and establishment of action thresholds; diversification of *species** composition and structure; use of low-impact mechanical methods; use of prescribed fire; use of longer rotations or selection harvest; use of uneven-age management.

Indicator 10.7.2 Prior to using *chemical pesticides**, the requirements of the Environmental and Social Risk Assessment (ESRA) framework for Organizations (FSC-POL-30-001 V3-0 FSC Pesticides Policy clause 4.12) are met.

Indicator 10.7.3 When *pesticides** are used:

- a. the selected *pesticide**, application method, timing and pattern of use offers the least *risk** to humans and non-target *species**; and
- b. objective evidence demonstrates that the *pesticide** is the only effective, practical, and cost-effective way to control the pest.

Indicator 10.7.4 When *pesticides** are used, a written prescription is prepared that describes the site-specific hazards and environmental *risks**, and the precautions that *workers** will employ to avoid or minimize those hazards and *risks**, and includes a map of the treatment area.

Guidance: *The Organization's* Environmental and Social Risk Assessment supports the conditions described in 10.7.4.

Indicator 10.7.5 When *chemical pesticides** are used, the effects are monitored and records are kept of pest occurrences, control measures, and incidences of *worker** exposure to chemicals.

Indicator 10.7.6 *Pesticide** transport, storage, handling, application, and emergency procedures for cleanup following accidental spillages are shown to comply with applicable *national laws** and *local laws** and regulations.

Indicator 10.7.7 Damage to human health from *pesticide** use is mitigated or repaired when it occurs, within *The Organization's** sphere of influence.

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).

C10.8 *The Organization shall minimize, *monitor**, and strictly control the use of *biological control agents** in accordance with *internationally accepted scientific protocols**. When *biological control agents** are used, *The Organization** shall prevent, mitigate, and/or repair damage to *environmental values**. (C6.8 P&C V4)**

Applicability: Mitigation or repair of damage to environmental values (identified per Indicator 6.1.1) resulting from use of *biological control agents** is addressed through Indicator 6.3.3.

Indicator 10.8.1 The use of *biological control agents** is minimized, *monitored**, and controlled. *Biological control agents** are used only as part of *The Organization's** *integrated pest management** system per Indicator 10.7.1.

Indicator 10.8.2 Use of *biological control agents** complies with *internationally accepted scientific protocols** (e.g., Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for the Import and Release of Exotic Biological Control).

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

C10.9 *The Organization shall assess *risks** and implement activities that reduce potential negative impacts from *natural hazards** proportionate to *scale, intensity, and risk**. (new)**

Indicator 10.9.1 *Management activities** are implemented to mitigate, within *The Organization's** sphere of influence, potential negative impacts of *natural hazards** on *infrastructure**, *forest** resources, and communities in the *Management Unit**, while maintaining the *ecosystem** function of natural disturbances where feasible.

Federal Lands Supplement to Indicator 10.9.1 (New) The applicable Federal agency assesses ecological and human safety risks from fire and fire suppression activities, and identifies the most effective mitigation approaches for these risks based on: (1) natural fire regimes, (2) risk of wildfire, (3) potential economic losses, (4) public safety, and “(5) opportunities to maintain and restore natural resilience to fire. Impacts of fire and fire suppression activities are monitored.

Guidance: In *forest** types that are fire-adapted or at risk of wildfire, *The Organization** identifies and applies site-specific fuels management practices, based on: 1) natural fire regimes; 2) risk of wildfire; 3) potential economic losses; 4) public safety; and 5) *applicable laws** and regulations.

Indicator 10.9.2 *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 may exist between expected future impacts of climate change and *catastrophic natural disturbances**. The fuels management practices identified in Indicator 10.9.1 Guidance may be relevant in this context. The Climate Change Toolkit in Annex L provides additional resources.

C10.10 *The Organization** shall manage *infrastructural development**, transport activities, and *silviculture** so that water resources and soils are protected, and disturbance of and damage to *rare and threatened species**, *habitats**, *ecosystems**, and *landscape values** are prevented, mitigated, and/or repaired. (C6.5 P&C V4)

The elements of the Criterion are addressed through the Indicators* of Criteria 6.1, 6.3, 6.4, and 6.7 and as such no Indicators* are included here. Any non-conformances shall be assessed to the Indicators* of these other Criteria*.*

C10.11 *The Organization** shall manage activities associated with harvesting and extraction of timber and *non-timber forest products** so that *environmental values** are conserved, merchantable waste is reduced, and damage to other products and services is avoided. (C5.3 and C6.5 P&C V4)

Indicator 10.11.1 Written plans for harvesting and other significant site-disturbing *management activities** required to carry out the *management plan** are prepared prior to implementation. Plans clearly describe the activity, the relationship to *management objectives**, outcomes, measures to *protect** and/or enhance potentially affected environmental and social values, and health and safety measures, and include maps of adequate detail.

Intent: This *Indicator** ensures that potential impacts and outcomes of site-specific activities are addressed in a way that reflects the intent of a more general (not site-specific) *management plan**.

Desired outcomes include both the immediate post-activity condition (e.g., stocking and composition) and desired longer-term outcomes (e.g., regeneration).

Other significant site-disturbing *management activities** may include, but are not limited to: site preparation, prescribed burns, use of chemicals or *biological control agents**, and road building or significant road maintenance.

Guidance: Operation plans may be integrated into the *management plan** (more likely on small ownerships) or be a separate document prior to the activity (e.g., a form or narrative, with associated map).

Harvest activity descriptions include the *silvicultural** system and specific practice, and desired post-harvest condition and other outcomes (e.g., regeneration).

This *Indicator** may be addressed with a combination of documents, such as contracts, maps, *best management practices**, and pre-harvest checklists.

For *public lands**, plans should be made available to the public prior to commencement of significant operations. *The Organization** should address public comments as part of the process of revising the plans.

Indicator 10.11.2 *The Organization** optimizes the use of harvested *forest** products and explores product diversification where appropriate and consistent with *management objectives**.

Indicator 10.11.3 Management practices are employed to minimize the loss and/or waste of harvested *forest** products.

Guidance: "Waste" consists of damage or underutilization of harvested products, except where portions of harvested material need to be left on-site to maintain *woody debris**, nutrient cycling, or other ecological functions (see Criterion 6.6 and the other *Indicators** of this *Criterion**).

Indicator 10.11.4 *Management activities**, including site preparation, harvest prescriptions, timing, and equipment, are selected and used to protect *soil**, water resources, residual trees, and other *forest** resources.. This includes:

- a. Logging and other activities that significantly increase the *risk** of landslides are excluded in areas where risk of landslides is high.
- b. Slash is concentrated only as much as necessary to achieve the goals of site preparation and the reduction of fuels to moderate or low levels of fire hazard.
- c. Disturbance of topsoil is limited to the minimum necessary to achieve successful regeneration of *species** native to the site.
- d. *Rutting** and compaction are minimized.
- e. *Soil erosion** is not accelerated.

- f. Burning is only done when consistent with *natural disturbance regimes*^{*}.
- g. Natural ground cover disturbance is minimized to the extent necessary to achieve regeneration objectives.
- h. Residual trees are not significantly damaged to the extent that health, growth, or values are affected.
- i. Damage to non-timber forest products^{*} is minimized.
- j. In plantations^{*}, intensive practices, such as windrowing, bedding, and/or ripping, are used only when required to achieve successful regeneration and when negative ecological impacts of these intensive practices are described and mitigated.

Intent: This *Indicator*^{*} includes *soil*^{*} productivity, function, *habitat*^{*} (including the leaf litter layer and fine *woody debris*^{*}), and *non-timber forest products*^{*} in all stands, management systems, and harvest objectives.

Guidance: Attention to this *Indicator*^{*} is expected to increase with the amount and frequency of woody material removed from the site (e.g., biomass removals and whole-tree harvests).

Decisions are made based on objective data regarding *slope*^{*}, *erosion*^{*}-hazard rating, potential for *soil*^{*} compaction, *rutting*^{*}, and risk of landslides.

To *protect*^{*} *soils*^{*} in areas having a high risk of landslides, logging plans should include tree *retention*^{*} critical for *slope*^{*} stability, and low-impact harvesting systems such as skyline cable or helicopter.

Clearcutting and other activities that significantly increase the *risk*^{*} of failure should not be conducted on unstable *slopes*^{*}.

All *soil*^{*}-disturbing activities, including road and trail construction, are conducted only during periods of weather when *soil*^{*} compaction, *rutting*^{*}, surface *erosion*^{*}, or sediment transport into streams and other *water bodies*^{*} can be adequately controlled. *Soils*^{*} should be dry enough or frozen to minimize disturbance and compaction.

In addition, the following guidance is region-specific:

Pacific Coast (PC):

- On *slopes*^{*} greater than 30%, ground-based yarding should be used only when it is possible to do so without exacerbating *soil*^{*} *erosion*^{*}.
- On *slopes*^{*} greater than 50%, cable or helicopter logging should be used if it is technically feasible and will not result in adverse environmental effects due to the management operation.

Ozark-Ouachita Region (OO):

- Deepening and scouring of existing drainages due to *silvicultural*^{*} or logging operations should be absent.

C10.12 The Organization* shall dispose of waste materials* in an environmentally appropriate manner. (C6.7 P&C V4)

Indicator 10.12.1 Collection, clean-up, transportation, and disposal of all *waste materials** is done in an environmentally appropriate way that conserves environmental values identified per Indicator 6.1.1.

Guidance: *Waste materials** include: lubricants, anti-freeze, hydraulic fluids, containers, *pesticides**, paints, batteries, fuels and oils, trash, abandoned equipment, etc.

Indicator 10.12.2 In localities where *best management practices** or *local laws** and regulations do not fully address the provisions of this *Indicator**, hazardous materials and fuels are stored in leak-proof containers in designated storage areas, outside of *riparian management zones**, and away from other ecologically sensitive features, until they are used or transported to an approved off-site location for disposal. There is no evidence of persistent fluid leaks from equipment or of recent groundwater or surface water contamination.

Intent: "Off-site" refers to a designated disposal location formally recognized and/or designated by a *local** government authority.

Annex A: Glossary

NOTE: Only one new definition has been incorporated into the Glossary for this public consultation and is explicitly in-scope for the consultation, “Restoration harvest.” The remainder of the definitions are out-of-scope, unless there is a concern/comment regarding the term or definition specifically as it pertains to Federal Lands.

Term	Definition
Adaptive management	A systematic process of continually improving management policies and practices by learning from the outcomes of existing measures. [Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website.]
Administrative requirements	Administrative rules, procedures, or regulations that have been promulgated to carry out laws.
Aesthetics	The (attractive) appearance or sound of something. [Source: Oxford English Dictionary]
Affected stakeholder	<p>Any person, group of persons or entity that is or has a high probability of being subject to the effects of the activities of a <i>Management Unit</i>[*]. Examples include but are not restricted to (for example in the case of downstream landowners), persons, groups of persons or entities located in the neighborhood of the <i>Management Unit</i>[*]. The following are examples of <i>affected stakeholders</i>[*]:</p> <ul style="list-style-type: none"> • <i>local communities</i>[*] • <i>indigenous peoples</i>[*] • <i>workers</i>[*] • <i>forest</i>[*] dwellers • neighbors • downstream landowners • local processors • local businesses • tenure and use <i>rights holders</i>[*], including landowners, organizations authorized or known to act on behalf of <i>affected stakeholders</i>[*], for example social and environmental NGOs, labor unions, etc. <p>[Source: FSC-STD-01-001 V5-2]</p>
Age class	Intervals into which the age range of a tree crop is divided; also, the trees falling into such an interval.
Alien species	See <i>non-native species</i> [*] .
Applicable law	Means applicable to <i>The Organization</i> [*] as a legal person or business enterprise in or for the benefit of the <i>Management Unit</i> [*] and those laws which affect the implementation of the FSC Principles and Criteria. This

	includes any combination of statutory law (Parliamentary-approved) and case law (court interpretations), subsidiary regulations, associated administrative procedures, and the national constitution (if present) which invariably takes legal precedence over all other legal instruments. [Source: FSC-STD-01-001 V5-2]
Aquatic habitat	<i>Habitat*</i> for plants and animals that has surface water essential to an organism's survival, as differentiated from <i>wetland* habitats*</i> characterized by saturated <i>soils*</i> or <i>riparian areas*</i> . Examples include streams, ponds, and <i>vernal ponds*</i> .
Baseline conditions	Ecological, economic, and social conditions at the beginning of a planning or management cycle.
Best Available Information	Data, facts, documents, <i>expert*</i> opinions, and results of field surveys or consultations with <i>stakeholders*</i> that are most credible, accurate, complete, and/or pertinent and that can be obtained through <i>reasonable*</i> effort and cost, subject to the <i>scale*</i> and <i>intensity*</i> of the <i>management activities*</i> and the <i>precautionary approach*</i> . [Source: FSC-STD-60-004 V2-0]
Best management practices (BMPs)	A practice considered by the state or authorized tribe to be the most effective means (technological, economic, and institutional) of preventing or reducing environmental or social impacts, including for water, roads, runoff, etc. <i>Best management practices*</i> are generally identified by states or <i>tribal*</i> entities and, in the case of <i>water quality*</i> , approved by the US EPA.
Binding agreement	A deal or pact, written or not, which is compulsory to its signatories and enforceable by law. Parties involved in the agreement do so freely and accept it voluntarily. [Source: FSC-STD-60-004 V2-0]
Biological control agents	Living organisms used to eliminate or regulate the population of other living organisms. [Source: Based on FSC-STD-01-001 V4-0 and World Conservation Union (IUCN). Glossary definitions as provided on IUCN website.]
Biological diversity (biodiversity)	The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic <i>ecosystems*</i> and the ecological complexes of which they are a part; this includes diversity within <i>species*</i> , between <i>species*</i> and of <i>ecosystems*</i> . [Source: Convention on Biological Diversity 1992, Article 2]
Buffer/buffer zones	A strip of vegetation that is left or managed to reduce the impact of a treatment or action of one area on another. Examples include <i>riparian management zones*</i> , <i>conservation* buffers*</i> around rare bird nests, and <i>conservation* buffers*</i> around cultural sites of significance.

Catastrophic natural disturbances	The natural events that significantly alter the <i>forest*</i> at the <i>landscape*</i> level.
Certification Body (CB)	FSC-accredited body that performs third-party auditing services.
Chain of custody (CoC)	The path taken by raw materials, processed materials, finished products, and co-products from the <i>forest*</i> to the consumer or (in the case of reclaimed/recycled materials or products containing them) from the reclamation site to the consumer, including each stage of processing, transformation, manufacturing, storage and transport where progress to the next stage of the supply chain involves a change of ownership (independent custodianship) of the materials or the product. [Source: FSC-STD-40-004 V2-1]
Chemical pesticides	Synthetically produced <i>pesticides*</i> . [Source: FSC-POL-30-001 V3-0]
Child labor	<p>“Oppressive <i>child labor*</i>” means a condition of employment under which</p> <p>(1) any employee under the age of sixteen years is employed by an employer (other than a parent or a person standing in place of a parent employing his own child or a child in his custody under the age of sixteen years in an occupation other than manufacturing or mining or an occupation found by the Secretary of Labor to be particularly hazardous for the employment of children between the ages of sixteen and eighteen years or detrimental to their health or well-being in any occupation, or</p> <p>(2) any employee between the ages of sixteen and eighteen years is employed by an employer in any occupation which the Secretary of Labor shall find and by order declare to be particularly hazardous for the employment of children between such ages or detrimental to their health or well-being; but oppressive <i>child labor*</i> shall not be deemed to exist by virtue of the employment in any occupation of any person with respect to whom the employer shall have on file an unexpired certificate issued and held pursuant to regulations of the Secretary of Labor certifying that such person is above the oppressive child-labor age. The Secretary of Labor shall provide by regulation or by order that the employment of employees between the ages of fourteen and sixteen years in occupations other than manufacturing and mining shall not be deemed to constitute oppressive 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</p>

	well-being. [Source: The Fair Labor Standards Act of 1938, as amended; 29 U.S.C. 201]
Climate change adaptation strategies	<i>Climate change adaptation strategies*</i> associated with <i>ecosystems*</i> and <i>biodiversity*</i> are generally categorized into three types: resistance, <i>resilience*</i> , and facilitated transformation. Resistance strategies maintain the current system for as long as possible even as changes occur. <i>Resilience*</i> strategies help a system cope with a changing climate, 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 <i>workers' organization*</i> , with a view to the regulation of terms and conditions of employment by means of collective agreements. [Source: ILO Convention 98, Article 4]
Complaint	The expression of dissatisfaction or concern by any person or organization presented to <i>The Organization*</i> , relating to its <i>management activities*</i> or its conformity with the FSC Principles and Criteria, where a response is expected. [Source: Adapted from FSC-STD-60-004 V1-0 definition of dispute and Merriam-Webster]
Confidential information	Private facts, data and content that, if made publicly available, might put at risk <i>The Organization*</i> , its business interests or its relationships with stakeholders, clients and competitors. [Source: FSC-STD-60-004 V2-0]
Conflicts between the Principles and Criteria and laws	Situations where it is not possible to comply with the <i>Principles*</i> and <i>Criteria*</i> and a law at the same time. [Source: FSC-STD-01-001 V5-2]
Connectivity	A measure of how connected or spatially continuous a corridor, network, or matrix is. The fewer gaps, the higher the <i>connectivity*</i> . Related to the structural <i>connectivity*</i> concept; functional or behavioral <i>connectivity*</i> refers to how connected an area is for a process, such as an animal moving through different types of <i>landscape*</i> elements. Aquatic <i>connectivity*</i> deals with the accessibility and transport of materials and organisms, through groundwater and surface water, between different patches of aquatic <i>ecosystems*</i> of all kinds. [Source: Based on R.T.T. Forman. 1995. <i>Land Mosaics</i> . The Ecology of Landscapes and Regions. Cambridge University Press, 632pp]
Conservation/ Protection	These words are used interchangeably when referring to <i>management activities*</i> designed to maintain the identified environmental or cultural values in existence <i>long-term*</i> . <i>Management activities*</i> may range from zero or minimal interventions to a specified range of appropriate

	interventions and activities designed to maintain, or compatible with maintaining, these identified values. [Source: FSC-STD-01-001 V5-2]
Conservation Areas Network	Those portions of the <i>Management Unit</i> * for which <i>conservation</i> * is the primary and, in some circumstances, exclusive objective; such areas include <i>Representative Sample Areas</i> *, <i>conservation zones</i> *, protection areas, <i>connectivity</i> * areas, and <i>High Conservation Value Areas</i> *. [Source: FSC-STD-60-004 V2-0]
Conservation zone	Areas designated within which maintenance and/or <i>restoration</i> * of such <i>species</i> * and community type(s) are the highest priority. Harvesting timber, other <i>management activities</i> *, and other uses are allowed within <i>conservation zones</i> * if they do not detract from maintenance or enhancement of the <i>species</i> * or community type(s).
Conversion	The modifications to the structure and dynamics of a <i>forest</i> * as a result of <i>management activities</i> that transform a <i>forest</i> * into a permanently non-forested* area; or the transformation of a <i>natural forest</i> * or <i>semi-natural forest</i> * into a <i>plantation</i> *.
Core area	The portion of each <i>Intact Forest Landscape</i> * designated to contain the most important cultural and ecological values. <i>Core areas</i> * are managed to exclude industrial activity. <i>Core areas</i> * meet or exceed the definition of <i>Intact Forest Landscape</i> *. [Source: FSC-STD-60-004 V2-0]
Credible scientific analysis	Scientific opinions supported by data and explanations in articles published by peer-reviewed professional journals that deal with the natural or social sciences and judged to be relevant to the matter in question. Credible scientific analysis may also include non-peer reviewed studies when conducted by experts in accordance with accepted scientific methods. Scientific credibility, as it applies to this Standard, is based on a body of scientific work and on the judgment of experienced professionals.
Criterion (pl. Criteria)	A means of judging whether or not a <i>Principle</i> * (of <i>forest</i> * stewardship) has been fulfilled. [Source: FSC-STD-01-001 V5-2]
Critical	The concept of criticality or fundamentality in Principal 9 and <i>HCVs</i> * relates to irreplaceability and to cases where loss or major damage to this <i>HCV</i> * would cause serious prejudice or suffering to <i>affected stakeholders</i> *. An <i>ecosystem</i> * service is considered to be critical (<i>HCV 4</i> *) where a disruption of that service is likely to cause, or poses a threat of, severe negative impacts on the welfare, health or survival of <i>local communities</i> *, on the environment, on <i>HCVs</i> *, or on the functioning of significant 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 <i>forest*</i> stand, calculated by dividing the total volume by the age of the stand.
Culturally appropriate	Means/approaches for outreach to target groups that are in harmony with the customs, values, sensitivities, and ways of life of the target audience. [Source: FSC-STD-60-004 V2-0]
Cumulative effects/impacts	Individual consequences of an action or repeated actions, which may or may not be observable, that reinforce one another as they occur over time until they cross a threshold and manifest as a stronger outcome than any of the individual consequences would be by themselves.
Customary law	Interrelated sets of <i>customary rights*</i> .
Customary rights	Rights which result from a long series of habitual or customary actions, 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: Due to the well-established legal structure in the United States for property rights, the rights of individuals and communities are established within the legal system, including any <i>customary rights*</i> , with the potential exception of <i>customary rights*</i> held by <i>Native American*</i> groups.
Desired future conditions	A description of the <i>forest*</i> and/or resource conditions that are believed necessary if goals and objectives are fully achieved. <i>Desired future condition*</i> typically includes <i>forest*</i> attributes such as <i>forest*</i> structure, <i>age class*</i> distribution, species composition, standing timber quality, and <i>stand*</i> arrangement. For the purposes of this Standard, managing for <i>desired future conditions*</i> implies that all other requirements in this Standard have been fully met.
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, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation; b) such other distinction, exclusion or preference which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation as may be determined by the Member concerned after consultation with representative employers' and <i>workers' organizations*</i> where such exist, and with other appropriate bodies. [Source: Adapted from ILO Convention 111, Article1). "Sexual orientation" and "gender identity" were added to the definition provided in Convention 111, as they have been identified as an additional type of discrimination which may occur]

Dispute	<p>A <i>dispute*</i> exists when the parties have exhausted consultative avenues to resolve a <i>complaint*</i> or other differences and the following occurs: a person or persons whose <i>rights*</i> or interests are directly affected by <i>The Organization's*</i> activities gives written notice to <i>The Organization*</i>, indicating that they wish to pursue a <i>dispute*</i> resolution process and specifying which <i>rights*</i> or interests are affected, by which <i>management activities*</i>, in which location, and what modifications are considered appropriate to avoid or mitigate impacts on the <i>rights*</i> or interests; OR, <i>The Organization*</i> gives written notice to the disputant, in order to trigger the <i>dispute*</i> resolution process and bring closure to the disagreement.</p>
Dispute of substantial duration	<p><i>Dispute*</i> that continues for more than twice as long as the predefined timelines in the FSC System (this is, for more than 6 months after receiving the <i>complaint*</i>, based on FSC-STD-20-001). [Source: FSC-STD-60-004 V2-0]</p>
Dispute of substantial magnitude	<p><i>Dispute*</i> that involves one or more of the following:</p> <ul style="list-style-type: none"> ● Where the negative impact of <i>management activities*</i> on <i>local communities* legal* rights</i> or on <i>Native American* groups' legal* rights</i> or <i>customary rights*</i> is of such a scale that it cannot be reversed or mitigated ● Where the negative impact of <i>management activities*</i> to the environment or social welfare is of such a scale and context that it cannot be reversed or mitigated ● Physical violence ● Significant destruction of property ● Presence of law enforcement or armed security contractors; ● Acts of intimidation against <i>workers*</i> and <i>affected stakeholders*</i> ● A <i>dispute*</i> can become of substantial magnitude if it is of <i>substantial duration*</i>, implies a significant number of interests and has a significant negative impact to the <i>forest*</i> resource/value ● A <i>complaint*</i> can immediately become a <i>dispute of substantial magnitude*</i> if it represents a credible, imminent, and irreparable threat to or from any of the above <p><i>Disputes of substantial magnitude*</i> are not common and represent the exception. [Source: Adapted from FSC-STD-60-004 V2-0]</p>
Ecological community	<p>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).</p>
Economic viability	<p>The capability of developing and surviving as a relatively independent social, economic or political unit. Economic viability may require but is not</p>

	synonymous with profitability [Source: Based on the definition provided on the website of the European Environment Agency].
Ecosystem (also Ecological system)	<p>A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. [Source: Convention on Biological Diversity 1992, Article 2]</p> <p>NOTE: A given terrestrial <i>ecological system</i>* will typically manifest itself in a <i>landscape</i>* at intermediate geographic scales of tens to thousands of acres and persist for 50 or more years. Therefore, these units are intended to encompass common <i>successional</i>* pathways for a given <i>landscape</i>* setting.</p>
Ecosystem services	<p>The benefits people obtain from <i>ecosystems</i>*. These include:</p> <ul style="list-style-type: none"> • provisioning services such as food, <i>forest</i>* products and water; • regulating services such as regulation of floods, drought, land degradation, air quality, climate and disease; • supporting services such as <i>soil</i>* formation and nutrient cycling; and • cultural services and cultural values such as recreational, spiritual, religious and other non-material benefits. <p>[Source: Based on R. Hassan, R. Scholes and N. Ash. 2005. <i>Ecosystems and Human Well-being: Synthesis</i>. The Millennium Ecosystem Assessment Series. Island Press, Washington DC]</p>
Employment and occupation	Includes access to vocational training, access to employment and to particular occupations, and terms and conditions of employment. [Source: ILO Convention 111, Article 1.3]
Endangered species	A <i>species</i> * officially designated by the US Fish and Wildlife Service, the National Marine Fisheries Service, or a state agency as having its continued existence threatened over all or a significant portion of its range.
Endemic species	A <i>species</i> * that is unique to a particular <i>water body</i> *, place, or region.
Engaging/engagement	The process by which <i>The Organization</i> * communicates, consults and/or provides for the participation of interested and/or <i>affected stakeholders</i> * ensuring that their concerns, desires, expectations, needs, <i>rights</i> * and opportunities are considered in the establishment, implementation and updating of the <i>management plan</i> *. [Source: FSC-STD-01-001 V5-2]
Environmental Impact Assessment (EIA)	Systematic process used to identify potential environmental and social impacts of proposed projects, to evaluate alternative approaches, and to design and incorporate appropriate prevention, mitigation, management, and monitoring measures. [Source: Based on Environmental impact

	assessment, guidelines for FAO field projects. Food and agriculture organization of the United Nations (FAO). Rome, FSC-STD-01-001 V5-2]
Erosion	The displacement of <i>soil</i> * from one place to another by any means, including water, wind, gravity, logging, and road building.
Even-aged silviculture	<i>Silvicultural</i> * systems in which <i>stands</i> * of trees of roughly the same age and size are grown and harvested simultaneously. Even-aged systems may involve intermediate entries that remove some trees before the final, or “regeneration”, harvest, when a new even-aged class of trees is established. A regeneration harvest is designed to remove all or most of the trees within a defined <i>age/size class</i> *, or to convert a <i>stand</i> * containing trees having a variety of ages, sizes, or <i>species</i> * to a more uniform <i>stand</i> *. The timing of the regeneration harvest is termed the “rotation age” of the timber stand. Even-aged <i>silvicultural</i> * systems include clearcut, seed-tree, shelterwood, two-age <i>silviculture</i> *, and variable retention systems. Even-aged <i>stands</i> * may contain more than one <i>age/size class</i> * of trees on the site at any one time for <i>silvicultural</i> * reasons or environmental enhancement. For instance, a variable retention system typically retains 10%–25% of the vegetative cover present before harvest on-site and intermixed with the new even-aged stand, to maintain structures and functions important for wildlife. Classic shelterwood and seed-tree cuts retain mature trees from the harvested <i>stand</i> * during the establishment of the next crop of trees, but these are taken out during a “removal” harvest to leave one <i>age/size class</i> * for future management.
Expert	<p>An expert:</p> <ul style="list-style-type: none"> • has knowledge or skill that is specialized and profound as the result of substantial practical or academic experience; and/or • is a recognized authority on a topic by virtue of published material on this topic, their stature within the professional community, and the broadly recognized related experience; and/or • possesses a wealth of experience on a topic, possibly through practical means including the accumulation of traditional knowledge. <p>[Source: Based on FSC-GUI-60-009 V1-0]</p> <p>NOTE: Some requirements for consultation with experts may be fulfilled through use of experts employed by the Organization. Some requirements specifically indicate the need for the expert to be independent of the Organization.</p>
Externalities	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 <i>Management Unit</i> * up to 2,470 acres in size, as defined by the FSC US's Family Forest Program (SLIMF) Streamlined Certification Procedures (FSC-POL-20-101 at http://www.fscus.org/documents/).
Fertilizer	Mineral or organic substances, most commonly N, P2O5 and K2O, which are applied to soil for the purpose of enhancing plant growth. [Source: FSC-STD-60-004 V2-0]
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. [Source: ILO Convention 29, Article 2.1]
Forest	Generally, an <i>ecosystem</i> * characterized by tree cover; more particularly, a <i>plant community</i> * predominantly of trees and other woody vegetation that is growing closely together.
Forest-dependent	<i>Local communities</i> * for whom <i>forests</i> * provide sites and/or resources that are fundamental for satisfying their basic necessities (i.e., livelihoods, health, nutrition, water); that is, the sites and/or resources provided are irreplaceable (i.e., alternatives are not readily accessible or affordable), and loss of or damage to them would cause serious suffering of, or prejudice to, the community as a whole.
Fragmentation	The process of dividing <i>habitats</i> * into smaller patches, which results in the loss of original <i>habitat</i> *, loss in <i>connectivity</i> *, reduction in patch size, and increasing isolation of patches. <i>Fragmentation</i> * is considered to be one of the single most important factors leading to loss of <i>native species</i> *, especially in <i>forested</i> * <i>landscapes</i> *, and one of the primary causes of the present extinction crisis. In reference to <i>Intact Forest Landscapes</i> *, the <i>fragmentation</i> * of concern is understood to be that caused by human industrial activities. [Source: Adapted from: Gerald E. Heilman, Jr. James R. Strittholt Nicholas C. Slosser Dominick A. Dellasala, <i>BioScience</i> (2002) 52 (5): 411-422]
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. <i>Free, prior, and informed consent</i> * includes the right to grant, modify, withhold or withdraw approval. [Source: Based on the Preliminary working paper on the principle of Free, Prior and Informed

	<p>Consent of Indigenous Peoples (...) (E/CN.4/Sub.2/AC.4/2004/4 8 July 2004) of the 22nd Session of the United Nations Commission on Human Rights, Sub-commission on the Promotion and Protection of Human Rights, Working Group on Indigenous Populations, 19–23 July 2004]</p>
<p>Gap Analysis Project (GAP)/ GAP status</p>	<p>The US Geological Survey’s Gap Analysis Project (GAP) develops data and tools to support the science of determining how well are we protecting common plants and animals. One of these tools is the Protected Areas Database of the United States (PAD-US), which identifies the status of <i>protected*</i> areas represented in the database through GAP Status Codes (i.e., GAP status), which are a measure of management intent to conserve <i>biodiversity*</i>, and are defined as:</p> <ul style="list-style-type: none"> • GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity, and legacy) are permitted to proceed without interference or are mimicked through management. • GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive uses or management practices that degrade the quality of existing natural communities, including suppression of natural disturbance. • GAP Status 3: An area having permanent protection from conversion of natural land cover for most of the area, but subject to extractive uses of either a broad, low-intensity type (e.g., logging, Off Highway Vehicle recreation) or localized intense type (e.g., mining). It also confers protection to federally listed endangered and threatened species throughout the area. • GAP Status 4: There are no known public or private institutional mandates or legally recognized easements or deed restrictions held by the managing entity to prevent conversion of natural habitat types to anthropogenic habitat types. The area generally allows conversion to unnatural land cover throughout or management intent is unknown.
<p>Gender equality</p>	<p><i>Gender equality*</i> or 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.]</p>

<p>Genetically modified organisms (GMO)</p>	<p>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)]</p> <p>Examples of techniques covered by this definition include:</p> <ul style="list-style-type: none"> • recombinant DNA techniques using viral or bacterial vectors • the direct introduction of DNA into an organism (e.g., by microinjection) • cell fusion or hybridization <p>Clones, hybrids formed by natural pollination processes, or the products of tree selection, grafting, vegetative propagation, or tissue culture are not <i>GMOs*</i>, unless produced by <i>GMO*</i> techniques.</p>
<p>Genotype</p>	<p>The genetic constitution of an organism. [Source: FSC-STD-01-001 V5- 2]</p>
<p>Good faith</p>	<p>The principle of <i>good faith*</i> implies that the parties make every effort to reach an agreement, conduct genuine and constructive negotiations, avoid delays in negotiations, respect concluded agreements, and give sufficient time to discuss and settle <i>disputes*</i>. [Source: Adapted from FSC Policy Motion 40/2017]</p>
<p>Habitat</p>	<p>(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.</p>
<p>Harvest unit</p>	<p>A spatial unit of <i>forest*</i> management that defines a single <i>silvicultural*</i> prescription.</p> <p>NOTE: The landing is not a part of the <i>harvest unit*</i>.</p>
<p>Hazardous work (in the context of child labor)</p>	<p>Any work which is likely to jeopardize children’s physical, mental or moral health, should not be undertaken by anyone under the age of 18 years. Hazardous <i>child labor*</i> is work in dangerous, or unhealthy conditions that could result in a child being killed or injured/maimed (often permanently) and/or made ill (often permanently) as a consequence of poor safety and health standards and working arrangements. In determining the type of hazard <i>child labor*</i> referred to under (Article 3(d) of the Convention No 182, and in identifying where they exist, consideration should be given, inter alia, to:</p> <ul style="list-style-type: none"> • Work which exposes children to physical, psychological or sexual abuse; • Work underground, under water at dangerous heights or in confined spaces;

	<ul style="list-style-type: none"> • Work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads; • Work in unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging to their health; • Work under particularly difficult conditions such as work for long hours or during the night or work where the child is unreasonably confined to the premises of the employer. <p>[Source: ILO, 2011: IPEC Mainstreaming Child labour concerns in education sector plans and Programmes, Geneva, 2011& ILO Handbook on Hazardous child labour, 2011]</p>
Heavy work (in the context of child labor)	Refers to work that is likely to be harmful or dangerous to children’s health. [Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]
High Conservation Value (HCV)	<p>Any of the following values:</p> <ul style="list-style-type: none"> • HCV 1: Species diversity. Concentrations of <i>biological diversity*</i> including <i>endemic species*</i>, and <i>rare, threatened or endangered species*</i>, that are <i>significant*</i> at global, regional or national levels. • HCV 2: <i>Landscape*-level ecosystems*</i> and mosaics. <i>Intact Forest Landscapes*</i>, large <i>landscape*-level ecosystems*</i> and <i>ecosystem* mosaics</i> that are <i>significant*</i> at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring <i>species*</i> in natural patterns of distribution and abundance. • HCV 3: <i>Ecosystems*</i> and <i>habitats*</i>. Rare, threatened, or endangered <i>ecosystems*</i>, <i>habitats*</i> or <i>refugia*</i>. • HCV 4: <i>Critical* ecosystem services*</i>. Basic <i>ecosystem services*</i> in <i>critical*</i> situations, including protection of water catchments and control of <i>erosion*</i> of vulnerable <i>soils*</i> and slopes. • HCV 5: Community needs. Sites and resources fundamental for satisfying the basic necessities of <i>local communities*</i> or <i>Indigenous Peoples*</i> (for example for livelihoods, health, nutrition, water), identified through <i>engagement*</i> with these communities or <i>Indigenous Peoples*</i>. • HCV 6: Cultural values. Sites, resources, <i>habitats*</i> and <i>landscapes*</i> of global or national cultural, archaeological or historical <i>significance*</i>, and/or of <i>critical*</i> cultural, ecological, economic or religious/sacred importance for the traditional cultures of <i>local communities*</i> or <i>Indigenous Peoples*</i>, identified through <i>engagement*</i> with these <i>local communities*</i> or <i>Indigenous Peoples*</i>. <p>[Source: Based on FSC-STD-01-001 V5-2]</p>

High Conservation Value Areas (HCVA)	Zones and physical spaces which possess and/or are needed for the existence and maintenance of identified <i>High Conservation Values</i> *. [Source: FSC-STD-60-004 V2-0]
Historic conditions	Ecological conditions and processes existing prior to substantial modern human disturbance of the site, based on <i>Best Available Information</i> *.
High grading (high grade logging)	A tree-removal practice in which only 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 ecological health and commercial value of the <i>forest</i> *. High grading stands as a counterpoint to sustainable resource management. [Source: Based on Glossary of Forest Management Terms. North Carolina Division of Forest Resources. March 2009]
ILO Core (Fundamental) Conventions	<p>These are labor standards that cover fundamental principles and rights at work: freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labor; the effective abolition of <i>child labor</i>*; and the elimination of discrimination in respect of employment and occupation.</p> <p>The eight Fundamental Conventions are:</p> <ul style="list-style-type: none"> • Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); • Right to Organise and Collective Bargaining Convention, 1949 (No. 98); • Forced Labour Convention, 1930 (No. 29); • Abolition of Forced Labour Convention, 1957 (No. 105); • Minimum Age Convention, 1973 (No. 138); • Worst Forms of Child Labour Convention, 1999 (No. 182); • Equal Remuneration Convention, 1951 (No. 100); • Discrimination (Employment and Occupation) Convention, 1958 (No. 111) <p>[Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]</p>
ILO Declaration on Fundamental Principles and Rights at Work and Its Follow-up, adopted by the International	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:

<p>Labor conference at its Eighty-sixth Session, Geneva, 18th June 1998 (Annex revised 15 June 2010)</p>	<ul style="list-style-type: none"> • Freedom of association and the effective recognition of the right to <i>collective bargaining</i>*; • The elimination of all forms of <i>forced or compulsory labor</i>*; • The effective abolition of <i>child labor</i>*; and • The elimination of discrimination in respect of employment and occupation. <p>[Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]</p>
<p>Indicator</p>	<p>A quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a <i>Management Unit</i>* complies with the requirements of an <i>FSC Criterion</i>*. <i>Indicators</i>* and the associated thresholds thereby define the requirements for responsible <i>forest</i>* management at the level of the <i>Management Unit</i>* and are the primary basis of <i>forest</i>* evaluation. [Source: FSC- STD-01-002, October 2017]</p>
<p>Indigenous Peoples</p>	<p>People and groups of people that can be identified or characterized as follows:</p> <ul style="list-style-type: none"> • The key characteristic or criterion is self-identification as <i>Indigenous Peoples</i>* at the individual level and acceptance by the community as their member; • Historical continuity with pre-colonial and/or pre-settler societies; • Strong link to territories and surrounding natural resources; • Distinct social, economic or political systems; • Distinct language, culture and beliefs; • Form non-dominant groups of society; • Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. <p>[Source: Adapted from United Nations Permanent Forum on Indigenous, Factsheet 'Who are Indigenous Peoples' October 2007; United Nations Development Group, 'Guidelines on Indigenous Peoples' Issues' United Nations 2009, United Nations Declaration on the Rights of Indigenous Peoples, 13 September 2007]</p>
<p>Industrial activity</p>	<p>Industrial <i>forest</i>* and resource <i>management activities</i>* such as road building, mining, dams, urban development and timber harvesting. [Source: FSC-STD-60-004 V2-0]</p>
<p>Infrastructure</p>	<p>In the context of <i>forest</i>* management, roads, bridges, culverts, log landings, quarries, impoundments, buildings and other structures required in the course of implementing the <i>management plan</i>*. [Source: FSC-STD-60-004 V2-0]</p>
<p>Intact Forest Landscape</p>	<p>A territory within today's global extent of <i>forest</i>* cover which contains <i>forest</i>* and non-<i>forest</i>* <i>ecosystems</i>* minimally influenced by human</p>

	economic activity, with an area of at least 500 km ² (50,000 ha) and a minimal width of 10 km (measured as the diameter of a circle that is entirely inscribed within the boundaries of the territory). [Source: Intact Forests / Global Forest Watch. Glossary definition as provided on Intact Forest website. 2006-2014]
Integrated pest management (IPM)	Careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations, encourage beneficial populations and keep <i>pesticides</i> * and other interventions to levels that are economically justified and reduce or minimize risks to human and animal health and/or the environment. <i>IPM</i> * emphasizes the growth of a healthy <i>forest</i> * with the least possible disruption to <i>ecosystems</i> * and encourages natural pest control mechanisms. [Source: Based on FAO International Code of Conduct on Pesticide Management]
Intellectual property	Practices as well as knowledge, innovations, and other creations of the mind. [Source: Based on the Convention on Biological Diversity, Article 8(j); and World Intellectual Property Organization. What is Intellectual Property? WIPO Publication No. 450(E)]
Intensity	A measure of the force, severity, or strength of a <i>management activity</i> * or other occurrence affecting the nature of the activity's impacts. [Source: FSC-STD-01- 001 V5-2]
Interested stakeholder	Any person, group of persons, or entity that has shown an interest, or is known to have an interest, in the activities of a <i>Management Unit</i> *. The following are examples of <i>interested stakeholders</i> *. <ul style="list-style-type: none"> • <i>Conservation</i>* organizations, for example environmental NGOs; • Labor (rights) organizations, for example labor unions; • Human rights organizations, for example social NGOs; • Local development projects; • Local governments; • National government departments functioning in the region; • FSC National Offices; • Experts on particular issues, for example <i>High Conservation Values</i>*. [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	<p>A <i>species</i>* capable of rapid reproduction and spatial expansion, which may displace more specialized <i>native species</i>* and/or is difficult to eradicate. <i>Invasive species</i>* can alter ecological relationships among <i>native species</i>* and can affect <i>ecosystem</i>* function and human health. <i>Invasive species</i>* are of particular ecological concern if they are not native to the area in question.</p>
Lands and territories	<p>For the purposes of the <i>Principles</i>* and <i>Criteria</i>* these are lands or territories that <i>Indigenous Peoples</i>* or <i>local communities</i>* have traditionally owned, or customarily used or occupied, and where access to natural resources is currently vital to the sustainability of their cultures and livelihoods. [Source: Based on World Bank safeguard OP 4.10 Indigenous Peoples, section 16 (a). July 2005]</p> <p>In the context of <i>Native Americans</i>*, this term includes ancestral territory and <i>tribal</i>* territory, and is, therefore, not limited to the lands reserved for the settlement of <i>Native Americans</i>* and/or other currently recognized <i>tribal</i>* lands.</p>
Landscape	<p>For the purposes of this Standard, the term “landscape” refers to a delineation of land area that captures similar environmental and ecological conditions including climate, geology, soils, water, and biology. USFS-defined Ecological Sections (Cleland 2005, update of Bailey/USFS) or smaller units are recommended for use to define <i>landscape</i>* for purposes of <i>RSA</i>* establishment and assessment . For many other purposes, “landscapes” will often occur at smaller scales than ecological sections. In some contexts, “landscape” as used in this Standard simply refers to consideration of the area surrounding a particular site.</p> <p>In developing the description of “landscape” <i>The Organization</i>* considers the <i>Management Unit’s</i>* ability to influence and impact the surrounding area, as well as the potential for other owners to influence and impact the area that the <i>Management Unit</i>* falls within. Some larger <i>Management Units</i>* may represent the full <i>landscape</i>* that needs to be considered, while other typically smaller <i>Management Units</i>* may occur within a broader <i>landscape</i>* that should be considered.</p>
Landscape values	<p><i>Landscape values</i>* can be visualized as layers of human perceptions overlaid on the physical <i>landscape</i>*. Some <i>landscape values</i>*, like economic, recreation, subsistence value, or visual quality are closely related to physical <i>landscape</i>* attributes. Other <i>landscape values</i>* such as intrinsic or spiritual value are more symbolic in character and are influenced more by individual perception or social construction than physical <i>landscape</i>* attributes. [Source: Based on website of the Landscape Value Institute]</p>

	For the purposes of Criterion 6.8 and Criterion 10.10, these values are focused on how the mosaic of <i>ecosystems*</i> , age structure, <i>species*</i> composition, <i>species*</i> distribution, <i>fragmentation*</i> , and other ecological conditions occur across the <i>landscape*</i> .
Large	When used in reference to an ownership or <i>Management Unit*</i> , it is an area greater than 50,000 acres in size.
Late successional	Forest in old-growth or mature seral stages.
Legacy tree	A tree, usually mature or remnant of growth, that provides a biological legacy. For the purposes of this Standard, it is an individual old tree that functions as a refuge or provides other important structural habitat values.
Legal	In accordance with primary legislation (<i>national laws*</i> or <i>local laws*</i>) or secondary legislation (subsidiary regulations, decrees, orders, etc.). “Legal” also includes rule-based decisions made by <i>legally competent*</i> agencies where such decisions flow directly and logically from the laws and regulations. Decisions made by <i>legally competent*</i> agencies may not be <i>legal*</i> if they do not flow directly and logically from the laws and regulations and if they are not rule-based but use administrative discretion. [Source: FSC-STD-01-001 V5-2] NOTE: In the United States, treaties and reserved treaty rights are legally binding.
Legal registration	National or <i>local* legal*</i> license or set of permissions to operate as an enterprise, with <i>rights*</i> to buy and sell products and/or services commercially. The license or permissions can apply to an individual, a privately-owned enterprise, or a publicly owned corporate entity. The <i>rights*</i> to buy and sell products and/or services do not carry the obligation to do so, so legal* registration applies also to <i>Organizations*</i> operating a <i>Management Unit*</i> without sales of products or services; for example, for unpriced recreation or for <i>conservation*</i> of <i>biodiversity*</i> or <i>habitat*</i> . [Source: FSC-STD-01-001 V5-2]
Legal status	The way in which the <i>Management Unit*</i> is classified according to law. In terms of tenure, it means the category of tenure, such as communal land or leasehold or freehold or State land or government land, etc. If the <i>Management Unit*</i> is being converted from one category to another (for example, from State land to communal indigenous land) the status includes the current position in the transition process. In terms of administration, <i>legal status*</i> could mean that the land is owned by the nation as a whole, is administered on behalf of the nation by a government department and is

	leased by a government Ministry to a private sector operator through a concession. [Source: FSC-STD-01-001 V5-2]
Legally competent	Mandated in law to perform a certain function. [Source: FSC-STD-01-001 V5-2]
Light work	<i>National laws*</i> or regulations may permit the employment or work of persons 13 to 15 years of age on <i>light work*</i> which is a) not likely to be harmful to their health or development; and b) not such as to prejudice their attendance at school, their participation in vocational orientation, or training programs approved by the competent authority or their capacity to benefit from the instruction received. [Source: ILO Convention 138, Article 7]
Living wage	See <i>Fair compensation*</i> .
Local	In or within reasonable proximity to the <i>Management Unit*</i> to have a significant impact on the economy or the environmental values of the <i>Management Unit*</i> , or to be significantly affected by the <i>management activities*</i> or the biophysical aspects of the <i>Management Unit*</i> . On <i>public lands*</i> , this also includes all citizens of the relevant entity (county, city, state, or nation).
Local communities	Communities of any size that are in or adjacent to the <i>Management Unit*</i> , and also those that are close enough to have a significant impact on the economy or the environmental values of the <i>Management Unit*</i> or to have their economies, <i>rights*</i> or environments significantly affected by the <i>management activities*</i> or the biophysical aspects of the <i>Management Unit*</i> . On <i>public lands*</i> , this also includes all citizens of the relevant entity (county, city, state, or nation). [Source: adapted from FSC-STD-01-001 V5-2]
Local laws	The whole suite of primary and secondary laws (acts, ordinances, statutes, decrees) which is limited in application to a particular geographic district within a national territory, as well as secondary regulations, and tertiary administrative procedures (rules/requirements) that derive their authority directly and explicitly from these primary and secondary laws. <i>Tribal*</i> laws are included within this definition of local laws. Laws derive authority ultimately from the Westphalian concept of sovereignty of the Nation State. [Source: FSC-STD-01-001 V5-2]
Long-term	The time-scale of the <i>forest*</i> owner or manager as manifested by the objectives of the <i>management plan*</i> , the rate of harvesting, and the commitment to maintain permanent <i>forest*</i> cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given <i>ecosystem*</i> to recover its natural structure and composition following harvesting or disturbance or to produce mature or primary conditions. This may extend beyond the

	duration of a certificate. [Source: Adapted from FSC-STD-01-002 V1-0 FSC Glossary of Terms (2009)]
Management activity	Any or all operations, processes, or procedures associated with managing a <i>forest*</i> , including but not limited to: planning, consultation, harvesting, access construction and maintenance, <i>silvicultural*</i> activities (planting, site preparation, tending), monitoring, assessment, and reporting. [Source: FSC Canada National Boreal Standard 2004]
Management objective	Specific management goals, practices, outcomes, and approaches established to achieve the requirements of this Standard. [Source: FSC-STD-60-004 V2-0]
Management plan	The collection of documents, reports, records and maps that describe, justify and regulate the activities carried out by any manager, staff, or <i>Organization*</i> within or in relation to the <i>Management Unit*</i> , including statements of objectives and policies. [Source: FSC-STD-01-001 V5-2]
Management strategy	A plan of action for how a <i>management objective*</i> or other desired outcome will be achieved.
Management Unit	A spatial area or areas submitted for FSC certification with clearly defined boundaries managed to a set of explicit <i>long term* management objectives*</i> which are expressed in a <i>management plan*</i> . This area or areas include(s): <ul style="list-style-type: none"> • all facilities and area(s) within or adjacent to this spatial area or areas under <i>legal*</i> title or management control of, or operated by or on behalf of <i>The Organization*</i>, for the purpose of contributing to the <i>management objectives*</i>; and • all facilities and area(s) outside, and not adjacent to this spatial area or areas and operated by or on behalf of <i>The Organization*</i>, solely for the purpose of contributing to the <i>management objectives*</i>. [Source: FSC-STD-01-001 V5-2]
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. <i>National laws*</i> may also permit the employment of 13-15-year-olds in <i>light work*</i> which is neither prejudicial to school attendance, nor harmful to a child's health or development. The ages 12-13 can apply for <i>light work*</i> in countries that specify a minimum age of 14. [Source: ILO Convention 138, Article 2]
Medium	When used in reference to an ownership or <i>Management Unit*</i> , it is an area between 2,475 and 50,000 acres in size.

Native American	Of or relating to the <i>Indigenous Peoples*</i> of the conterminous United States (not including Alaska, Hawaii, or any US territories).
National 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: FSC-STD-01-001 V5-2]
Native species	<i>Species*</i> , subspecies, or lower taxon, occurring within its natural range (past or present) and dispersal potential (that is, within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans). [Source: Convention on Biological Diversity (CBD). Invasive Alien Species Programme. Glossary of Terms as provided on CBD website]
Natural conditions	For the purposes of the <i>Principles*</i> and <i>Criteria*</i> and any applications of restoration techniques, the term “more natural conditions” provides for managing sites to favor or <i>restore* native species*</i> and associations of <i>native species*</i> that are typical of the locality, and for managing these associations and other environmental values so that they form <i>ecosystems*</i> typical of the locality. [Source: Adapted from FSC-STD-01-001 V5-2]
Natural disturbance regime	Disturbance processes such as wind, fire, insects, and pathogens that are characteristic of the <i>forest* ecosystem*</i> , site, and region. Disturbance regimes are typically characterized by the range of extent, intensity, and return interval of a similar event expected for a given site. For the purposes of this Standard, <i>non-catastrophic natural disturbance*</i> should be the focus of analyzing for natural disturbance.
Natural forest	<i>Natural forests*</i> include <i>old growth*</i> and <i>primary forests*</i> as well as managed <i>forests*</i> where most of the principal characteristics and key elements of native <i>ecosystems*</i> , such as complexity, structure, wildlife, and <i>biological diversity*</i> , are present. See also <i>semi-natural forest*</i> .
Natural hazards	Disturbances that can present risks to social and environmental values* in the <i>Management Unit*</i> but that may also comprise important <i>ecosystem*</i> functions; examples include drought, flood, fire, landslide, storm, avalanche, etc. [Source: FSC-STD-60-004 V2-0]
Non-native species	A <i>species*</i> , subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such <i>species*</i> that might survive and subsequently reproduce. [Source: Convention on Biological Diversity (CBD), Invasive 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 <i>Management Unit*</i> , including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products. [Source: adapted from FSC-STD-01-001 V5-2]
Objective	The basic purpose laid down by <i>The Organization*</i> for the <i>forest*</i> enterprise, including the decision of policy and the choice of means for attaining the purpose. [Source: Based on F.C. Osmaston. 1968. <i>The Management of Forests</i> . Hafner, New York; and D.R. Johnston, A.J. Grayson and R.T. Bradley. 1967. <i>Forest Planning</i> . Faber & Faber, London]
Obligatory code of practice	A manual or handbook or other source of technical instruction which <i>The Organization*</i> must implement by law. [Source: FSC-STD-01-001 V5-2]
Occupational disease	Any disease contracted as a result of an exposure to risk factors arising from work activity. [Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website]
Occupational injuries	Any personal injury, disease or death resulting from an occupational accident. [Source: International Labour Organization (ILO). Bureau of Library and Information Services. ILO Thesaurus as provided on ILO website]
Old growth	(1) The oldest seral stage in which a <i>plant community*</i> is capable of existing on a site, given the frequency of natural disturbance events, or (2) a very old example of a <i>stand*</i> dominated by long-lived early- or mid-seral <i>species*</i> . The onset of <i>old growth*</i> varies by <i>forest*</i> community and region. Depending on the frequency and intensity of disturbances, and site conditions, <i>old-growth*</i> forests will have different structures, <i>species*</i> compositions, age distributions, and functional capacities than younger forests. <i>Old-growth* stands*</i> and <i>forests*</i> include: Type 1 Old Growth: 3 acres or more that have never been logged and that display <i>old-growth*</i> characteristics. Type 2 Old Growth: 20 acres or more that have been logged, but which retain significant <i>old-growth*</i> structure and functions.
The Organization	The person or entity holding or applying for certification and therefore responsible for demonstrating compliance with the requirements upon which FSC certification is based. [Source: FSC-STD-01-001 V5-2]
Pathogen	Any agent that causes disease, especially microorganisms, such as bacteria or fungi.
Perennial stream	A mapped or unmapped stream with a defined channel, banks, and bed that flows year-round. Sub-surface reaches located downstream of the upper most point of perennial flow (i.e., perennial initiation point) shall be treated as perennial.

Pesticide	<p>Any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth. [Source: FAO International Code of Conduct on Pesticide Management]</p> <p>NOTE: This definition includes insecticides, rodenticides, acaricides, molluscicides, larvaecides, nematocides, fungicides, and herbicides.</p>
Planning unit	<p>The specific geographic area for which a <i>sustained yield harvest level*</i> is being calculated. Planning units should generally be composed of land that contains similar or commonly associated <i>forest*</i> types. Depending upon the scale of ownership, planning units may range in size from a single <i>stand*</i> (for example, <i>small*</i>, private landowners) to entire watersheds. A planning unit may include the entire <i>Management Unit*</i> if not larger than watersheds.</p>
Plant community (plant community type)	<p>See <i>ecological community*</i>.</p>
Plantation	<p>A <i>forest*</i> area established by planting or sowing with, using either <i>native species*</i> or <i>non-native species*</i>, often with one or few <i>species*</i>, regular spacing, and even ages, and which lacks most of the principal characteristics and key elements of native <i>forest* ecosystems*</i>. The use of establishment or subsequent management practices in planted <i>forest* stands*</i> that perpetuate the <i>stand*</i>-level absence of most principle characteristics and key elements of native <i>forest* ecosystems*</i> will result in a stand being classified as a <i>plantation*</i>. The details addressing ecological conditions used in <i>stand*</i>-level classification are outlined in related guidance. Except for highly extenuating circumstances, the following are classified as <i>plantations*</i>:</p> <ul style="list-style-type: none"> • cultivation of exotic species <i>non-native species*</i> or recognized exotic non-native sub-<i>species*</i>, except when used in conformance with Indicator 10.2.2; • block plantings of cloned trees resulting in a major reduction of within-<i>stand*</i> genetic diversity compared to what would be found in a natural <i>stand*</i> of the same <i>species*</i>; and • cultivation of any tree <i>species*</i> in areas that were naturally non-forested <i>ecosystems*</i>. <p>[Source: adapted from FSC-STD-01-001 V5-2]</p> <p>NOTE: Guidance for differentiating between <i>natural forest*</i> or <i>semi-natural forest*</i> and <i>plantation*</i> is provided in Annex I.</p>

Pre-harvest	The diversity, composition, and structure of the <i>forest*</i> or <i>plantation*</i> prior to felling timber and appurtenant activities such as road building. [Source: FSC-STD-60-004 V2-0]
Precautionary principle/ approach	An approach requiring that when the available information indicates that <i>management activities*</i> pose a threat of severe or irreversible damage to the environment or a threat to human welfare, <i>The Organization*</i> will take explicit and effective measures to prevent the damage and avoid the <i>risks*</i> to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of environmental values are uncertain. [Source: Based on Principle 15 of Rio Declaration on Environment and Development, 1992, and Wingspread Statement on the Precautionary Principle of the Wingspread Conference, 23–25 January 1998]
Primary forest	<i>Forest* ecosystems*</i> that have retained the principal characteristics and key elements of native <i>ecosystems*</i> , such as complexity, structure, and diversity, and have remained relatively undisturbed by human activity (i.e., lack visible indications of human economic activity). Human impacts in such <i>forest*</i> areas have normally been limited to low levels of hunting, fishing, and very limited, non-commercial harvesting of <i>forest*</i> products. NOTE: In fire- or other disturbance-dominated <i>ecosystems*</i> , <i>primary forest*</i> may not always be dominated by mature trees, or any trees at all, but instead may present as a mosaic of older and younger <i>stands*</i> .
Principle	An essential rule or element; in FSC’s case, of <i>forest*</i> stewardship. [Source: FSC-STD-01-001 V5-2]
Protected areas	Portions of the <i>forest*</i> of special biological, cultural, or historical significance that are designated, mapped, and managed principally to protect their biological, cultural, or historic attributes. Only <i>management activities*</i> (including logging) implemented to achieve ecological improvements are allowed in <i>protected areas*</i> .
Protection	See <i>Conservation*</i> .
Public land	Land held in government ownership in trust for the citizens of a city, county or parish, state, or nation. For the purpose of requirements that are specific to “public lands”, <i>tribal*</i> lands are excluded from this definition, even though the US federal government has a trust responsibility to tribes for the management of <i>tribal*</i> lands.
Publicly available	In a manner accessible to or observable by people generally. [Source: Collins English Dictionary, 2003 Edition]

Rare ecological community (including plant community)	Those <i>ecological communities</i> * that have been identified by state or federal agencies or natural heritage databases to be rare, consistent with the parameters for determining <i>rare, threatened, and endangered species</i> *.
Rare species	See <i>rare, threatened, and endangered species</i> *
Rare, threatened, and endangered species (RTE species)	<i>Species</i> * (including plants, animals, and other organisms) that are federally-listed (i.e., by the US Fish and Wildlife Service or National Marine Fisheries Service) or state-listed (i.e., by state natural heritage or other state agencies) as threatened, endangered, or sensitive; and species that are listed by the Natural Heritage Database or NatureServe as critically imperiled, imperiled, or vulnerable. This includes all G1—G3 and S1—S2 species. Some S3-ranked species, including all S3 species that are listed as candidates for federal or state listing, will also be considered rare. Other S3 species may be considered rare based on the assessment by the landowner or manager conducted per Indicator 6.1.1 .
Ratified	The process by which an international law, convention or agreement (including multilateral environmental agreement) is <i>legally</i> * approved by a national legislature or equivalent legal mechanism, such that the international law, convention, or agreement becomes automatically part of <i>national law</i> * or sets in motion the development of <i>national law</i> * to give the same <i>legal</i> * effect. [Source: FSC-STD-01-001 V5-2]
Reasonable	Judged to be fair or appropriate to the circumstances or purposes, based on general experience. [Source: Shorter Oxford English Dictionary]
Refugia	(plural) <i>Habitat</i> * in which a population can persist and from which it can disperse when the surrounding <i>habitat</i> * becomes suitable for it to live in; locations and <i>habitats</i> * that support populations of organisms that are limited to a small fragment of their previous geographic range.
Regeneration harvest	Any removal of trees intended to assist regeneration already present or to make regeneration possible.
Representative Sample Areas (RSAs)	Portions of the <i>Management Unit</i> * delineated for the purpose of <i>conserving</i> * or <i>restoring</i> * <i>viable</i> * examples of an <i>ecosystem</i> * that would naturally occur in that ecological region. <i>RSA</i> * may also: <ul style="list-style-type: none"> a. serve to <i>conserve</i>* or <i>restore</i>* an under-represented ecological condition (i.e., <i>forest</i>* <i>successional</i>* phases, ecological communities); and/or b. serve as a set of <i>conservation zones</i>* or <i>refugia</i>* for <i>species</i>*, communities, and/or community types not addressed in other <i>Criteria</i>* of this Standard. [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. <i>Resilience*</i> can be applied to both <i>ecological systems*</i> and social systems. [Source: IUCN World Commission on Protected Areas (IUCN-WCPA). 2008. Establishing Marine Protected Area Networks – Making it Happen. Washington D.C.: IUCN-WCPA National Oceanic and Atmospheric Administration and The Nature Conservancy.]
Restore (Restoration)	The process of modifying or repairing a <i>habitat*</i> or <i>ecosystem*</i> to introduce or reintroduce composition, structures, and functions that are native to the site.
Restoration harvest	A harvest that is intended to move a forest closer to the principle characteristics and key elements of the native forest ecosystem.
Retention	Living vegetation, including trees, shrubs, and herbaceous <i>species*</i> , that is retained during even-aged and two-aged regeneration harvests.
Rights	In the context of access rights and <i>use rights*</i> , “rights” is used to reference <i>legal*</i> rights and <i>customary rights*</i> held by <i>Native American*</i> groups, and <i>legal*</i> rights held by all other <i>rights holders*</i> .
Rights holder	Persons and groups, including <i>Native American groups*</i> , <i>traditional peoples*</i> , and <i>local communities*</i> , with <i>legal*</i> rights or, in the case of <i>Native American*</i> groups, with <i>legal*</i> or <i>customary rights*</i> , including treaty rights, to land and/or resources within the <i>Management Unit*</i> . For <i>rights*</i> held by <i>Native American groups*</i> , <i>traditional peoples*</i> , and <i>forest-dependent* local communities*</i> , <i>free, prior, and informed consent*</i> is required to determine management decisions. [Source: Adapted from FSC-STD-60-004 V2-0]
Riparian area	Interface between upland communities and a <i>water body*</i> often delineated and managed to conserve the plant and wildlife <i>habitat*</i> characteristics of the area and to <i>protect*</i> adjacent aquatic <i>habitats*</i> and <i>ecosystems*</i> . <i>Riparian areas*</i> vary in width according to biotic and abiotic characteristics and may be wider than a <i>riparian management zone*</i> (RMZ), which is designed to <i>protect* water quality*</i> and <i>aquatic habitat*</i> .
Riparian management zone (RMZ)	Areas next to rivers, streams, <i>wetlands*</i> , <i>vernal pools*</i> , seeps and springs, lake and pond shorelines, karst, and other hydrologically sensitive areas where management practices are modified to <i>protect* water quality*</i> and <i>aquatic habitats*</i> by minimizing non-point source pollution to surface waters. In addition to their primary purpose of <i>protecting* water quality*</i> , these areas also provide similar ecological functions to <i>riparian areas*</i> .
Riparian zone	See <i>riparian area*</i> .

Risk	The probability of an unacceptable negative impact arising from any activity in the <i>Management Unit</i> * combined with its seriousness in terms of consequences. [Source: FSC-STD-01-001 V5-2]
Rutting	The creation of depressions made by tires and treads of mechanical equipment such as trucks, skidders, tractors, all-terrain vehicles (ATV), and other equipment. Rutting may occur in the general harvest area and on facilities such as roads and skid trails. Ruts may result from harvest operations or other uses such as recreational ATV use.
Scale	A measure of the extent to which a <i>management activity</i> * or event affects an environmental value or a <i>Management Unit</i> *, in time or space. An activity with a small or low spatial <i>scale</i> * affects only a small proportion of the <i>forest</i> * each year, an activity with a small or low temporal <i>scale</i> * occurs only at long intervals. [Source: FSC-STD- 01-001 V5-2]
Scale, intensity, and risk	See individual definitions for <i>scale</i> *, <i>intensity</i> *, and <i>risk</i> *.
Semi-natural forest	A <i>forest</i> * <i>ecosystem</i> * with many of the characteristics of native <i>ecosystems</i> * present. <i>Semi-natural forests</i> * exhibit a history of human disturbance (e.g., harvesting or other <i>silvicultural</i> * activities), are very common in the United States, and include a considerable amount of unmanaged, and most of the managed, <i>forest</i> * land other than <i>plantations</i> *.
Significant	<p>For the purposes of Principle 9, <i>HCVs 1, 2 and 6</i>* there are three main forms of recognizing <i>significance</i>*.</p> <ul style="list-style-type: none"> • A designation, classification or recognized <i>conservation</i>* status, assigned by an international agency such as IUCN or Birdlife International; • A designation by national or regional authorities, or by a responsible national <i>conservation</i>* organization, on the basis of its concentration of <i>biodiversity</i>*; • A voluntary recognition by the manager, owner or <i>Organization</i>*, on the basis of available information, or of the known or suspected presence of a <i>significant</i>* <i>biodiversity</i>* concentration, even when not officially designated by other agencies. <p>Any one of these forms will justify designation as <i>HCVs 1, 2 and 6</i>*. Many regions of the world have received recognition for their <i>biodiversity</i>* importance, measured in many different ways. Existing maps and classifications of priority areas for <i>biodiversity</i>* <i>conservation</i>* play an essential role in identifying the potential presence of <i>HCVs 1, 2* and 6</i>*. [Source: FSC-STD-01-001 V5-2]</p>
Silviculture (Silvicultural)	The art and science of controlling the establishment, growth, composition, health and quality of <i>forests</i> * and woodlands to meet the targeted diverse

	needs and values of landowners and society on a sustainable basis. [Source: Nieuwenhuis, M. 2000. Terminology of Forest Management. IUFRO World Series Vol. 9. IUFRO 4.04.07 SilvaPlan and SilvaVoc]
Slope	The incline of the land surface measured in degrees from the horizontal or in percent as determined by the number of units change in elevation per 100 of the same measurement units; also characterized by the compass direction in which it faces.
Small	When used in reference to an ownership or <i>Management Unit</i> [*] , see <i>Family Forest</i> [*] .
Snag	A standing dead tree.
Soil	Earth material (rock) so modified by physical, chemical, and biological agents that it will support rooted plants. <i>Soil</i> [*] also includes organic material, biotic communities, and <i>species</i> [*] that live in the ground and that contribute to ecological productivity.
Species	The main category of taxonomic classification into which genera are subdivided, comprising a group of similar interbreeding individuals sharing a common morphology, physiology, and reproductive process.
Species composition	The <i>species</i> [*] that occur on a site or within an <i>ecosystem</i> [*] at any point in time.
Stakeholder	See <i>affected stakeholder</i> [*] and <i>interested stakeholder</i> [*] .
Stand	<i>Plant communities</i> [*] , particularly of trees, sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguished from adjacent communities; also, may delineate a <i>silvicultural</i> [*] or management entity.
Streamside management zone (SMZs)	See <i>riparian management zone</i> [*] .
Structural diversity	The diversity in a <i>plant community</i> [*] that results from the variety of physical forms of the plants within the community (such as the layering of vegetation into groundcover, shrub layer, as well as understory, mid-story, and overstory trees).
Succession	Progressive changes in <i>species</i> [*] composition and <i>forest</i> [*] community structures caused by natural processes (non-human) over time.
Sustained yield harvest levels	Harvest levels and rates that do not exceed growth over successive harvests, that contribute directly to achieving <i>desired future conditions</i> [*] , and that do not diminish the <i>long-term</i> [*] ecological integrity and productivity of the site.

Tenure (also long-term tenure, legal tenure, tenure claim)	Socially-defined agreements held by individuals or groups, recognized by <i>legal*</i> statutes or customary practice, regarding the “bundle of <i>rights*</i> and duties” of ownership, holding, access and/or usage of a particular unit of land or the associated resources therein (such as individual trees, plant <i>species*</i> , water, minerals, etc.). [Source: Adapted from World Conservation Union (IUCN). Glossary definitions provided on IUCN website]
Threat	An indication or warning of impending or likely damage or negative impacts. [Source: Based on Oxford English Dictionary]
Threatened species	Any <i>species*</i> officially designated by a state or federal agency that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Timber harvesting level	The actual harvest quantity executed on the <i>Management Unit*</i> , tracked by either volume (e.g., cubic meters or board feet) or area (e.g., hectares or acres) metrics for the purpose of comparison with calculated (maximum) <i>sustained yield harvest level*</i> . [Source: Adapted from FSC-STD-60-004 V2-0]
Traditional knowledge	Information, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity. [Source: Based on the definition by the World Intellectual Property Organization (WIPO). Glossary definition as provided under Policy/Traditional Knowledge on the WIPO website]
Traditional peoples	Social groups or peoples who do not self-identify as indigenous and who affirm <i>rights*</i> to their lands, <i>forests*</i> and other resources based on long established custom or traditional occupation and use. [Source: Forest Peoples Programme (Marcus Colchester, 7 October 2009)]
Transportation system	Permanent and temporary haul roads, skid trails, and recreational trails.
Tribal	Of or relating to the <i>Native Americans*</i> of a particular land base.
Type 1 old growth	See <i>old growth*</i> .
Type 2 old growth	See <i>old growth*</i> .
Uphold	To acknowledge, respect, sustain and support. [Source: FSC-STD-01-001 V5-2]
Use rights	<i>Rights*</i> for the use of resources of the <i>Management Unit*</i> that can be defined by local custom or mutual agreements, or be prescribed by other entities holding access rights. These rights may restrict the use of

	particular resources to specific levels of consumption or particular harvesting techniques. [Source: FSC-STD-01-001 V5-2]
Vast majority	80% of the total area of <i>Intact Forest Landscapes*</i> within the <i>Management Unit*</i> as of January 1, 2017. The <i>vast majority*</i> also meets or exceeds the minimum definition of <i>Intact Forest Landscape*</i> . [Source: FSC-STD-60-004 V2-0]
Verifiable targets	Specific goals, such as <i>desired future forest conditions*</i> , established to measure progress towards the achievement of each of the <i>management objectives*</i> . These goals are expressed as clear outcomes, such that their attainment can be verified and it is possible to determine whether they have been accomplished or not. [Source: FSC-STD-60-004 V2-0]
Vernal pool (vernal pond)	A seasonal body of water, typically a self-contained depression, that contains species not normally found in perennial <i>water bodies*</i> . <i>Vernal pool*</i> types, <i>species*</i> , and identification will vary by region. <i>Vernal pools*</i> that occur in eastern and midwestern <i>forests*</i> are characterized by a unique suite of amphibian and invertebrate <i>species*</i> . In Mediterranean-type climates (i.e., wet winters and dry summers), especially on coastal terraces in southwestern California, the central valley of California, and areas west of the Sierra Mountains, the term “vernal pool” applies to shallow, seasonally flooded wet meadows with emergent hydrophytic vegetation and invertebrate <i>species*</i> not found in other <i>wetland*</i> types.
Very limited portion	The area affected shall not exceed 0.5% of the area of the <i>Management Unit*</i> in any one year, nor affect a total of more than 5% of the area of the <i>Management Unit*</i> . [Source: FSC-STD-01-002]
Very limited portion of core area	The area affected shall not exceed 0.5% of the area of the <i>core area*</i> in any one year, nor affect a total of more than 5% of the area of the <i>core area*</i> . [Source: FSC-STD-60-004 V2-0]
Viable	In the context of <i>Representative Sample Areas*</i> , viability means that the critical components and functions of a dynamic, stochastic system at any time remain in a domain where the future existence of these components and functions is highly probable.
Visions and values	Policies of <i>The Organization*</i> that together provide a clear, specific, compelling picture of what <i>The Organization*</i> will look like at a specific time in the future (i.e., vision) and the boundaries within which <i>The Organization*</i> will operate in pursuit of its vision (i.e., values).
Waste materials	Unusable or unwanted substances or by-products, such as: <ul style="list-style-type: none"> • Hazardous waste, including chemical waste and batteries; • Containers; • Motor and other fuels and oils; • Rubbish including metals, plastics and paper; and

	<ul style="list-style-type: none"> Abandoned buildings, machinery and equipment. [Source: FSC-STD-60-004 V2-0]
Water bodies	Seasonal, temporary, and permanent brooks, creeks, streams, rivers, ponds, and lakes. <i>Water bodies*</i> include riparian or <i>wetland*</i> systems, lakes, swamps, bogs and springs. [Source: FSC-STD-60-004 V2-0]
Water quality	Timing and volume of water flow and the purity of water determined by a series of standard physio-chemical parameters (e.g., turbidity, temperature, bacterial count, pH, and dissolved oxygen), or by biological parameters (e.g., community composition and functionality), as well as the incidence of disease.
Wetland	Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated <i>soil*</i> conditions. <i>Wetlands*</i> generally include swamps, marshes, bogs and similar areas. [Source: US Environmental Protection Agency]
Woody debris	All woody material, from whatever source, that is dead and lying on the <i>forest*</i> floor, where it provides important microhabitats and performs various functions of nutrient cycling. <i>Woody debris*</i> is commonly categorized as large and/or coarse, or fine, and both provide important but different ecological values.
Workers	All employed persons including public employees as well as “self-employed” persons. 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: ILO Convention 155, Occupational Safety and Health Convention, 1981]
Workers’ organization	Any organization of <i>workers*</i> for furthering and defending the interest of <i>workers*</i> (adapted from ILO Convention 87, Article 10). It is important to note that rules and guidance on composition of <i>workers’ organization*</i> vary from country to country, especially in relation to those who are considered as rank and file members, as well those who are deemed to have power to “hire and fire”. <i>Workers’ organizations*</i> tend to separate association between those who can “hire and fire” and those who cannot. [Source: FSC report on generic criteria and indicators based on ILO Core Conventions principles, 2017]
Worst forms of child labor	Comprises a) all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom, and forced labor, including forced or compulsory recruitment of children for use in armed conflict; b) the use, procuring, or offering of a child for prostitution,

	<p>for the production of pornography, or for pornographic performance; c) the use, procuring, or offering of a child for illicit activities, in particular for production and trafficking of drugs as defined in the relevant international treaties; d) work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety, or morals of children. [Source: ILO Convention 182, Article 3]</p>
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