

INTERPRETATION OF FSC-US FOREST MANAGEMENT STANDARD (V1.0)

Scope: Indicator 6.3.g.1.b (Pacific Coast only) - Use of Even-aged Management

Date: November 27 2011

Reference: Indicator 6.3.g.1.b *Even-aged silviculture* may be employed where: 1) native species require openings for regeneration or vigorous young-stand development, or 2) it restores the native species composition, or 3) it is needed to restore structural diversity in a landscape lacking openings while maintaining connectivity of older intact forests.

Draft guidance and intent of terms used in the Indicator:

- **Even-aged silviculture:** refers to stand-level management techniques. Variation in size and age classes between stands that results in landscape level multiple-age management is an important consideration in parts 2) and 3) of the Indicator.
- **Openings:** refers to forest clearings, including those created by regeneration harvests, of sizes representative of typical even-aged silvicultural practices associated with the native species in question within the region of operation.
- **Vigorous:** as used in the Indicator is intended to include consideration of fiber production, including economic and social considerations, but not to imply maximization of fiber production. **Vigorous** young stand development implies conditions where native tree species have access to the necessary light, water, and nutrients to grow sufficiently and maintain appropriate form class until the next entry. These conditions will vary by species and location.
- **Restore:** as used in this Indicator is intended to incorporate elements of, but not be absolutely bound by, historical conditions. Restoration of native species composition should include considerations of tree species in their historical abundance and distribution. Restoration of structural diversity should include considerations of historical disturbance regimes and the abundance, size, and distribution of openings created by those disturbances, and how this relates to use by native wildlife species (including plants, animals, and other organisms).

Draft Indicator-level intent: The intent of the Indicator includes the following:

- To specify that the required conditions for the use of even-aged management are the following: 1) where it is necessary for establishment and development of the site's native species composition (given that some tree species are shade intolerant); or 2) where even-aged management is the ecologically most appropriate management regime for the site's native species or to restore the native species; or 3) where there is a current under-representation of openings compared to historical conditions.
- To recognize that different tree species have different shade tolerances, some of which may require openings consistent with even-aged management regimes for establishment or vigorous early development.
- To recognize where restoration of heterogeneous stand conditions, based in a historical natural disturbance context, may depend on even-aged management and creation of openings consistent with even-aged management.
- For larger ownerships, in cases where even-aged management is justified as appropriate for a portion of an ownership, it does not imply that it is appropriate across the entire ownership.

Draft guidance on Part 1 of the Indicator: *native species require openings for regeneration or vigorous young-stand development.* The intent is to state that **openings** consistent with even-aged silviculture are appropriate where required for regeneration or **vigorous** young stand development of native species, considering the context of economic and environmental inputs into determining what is **vigorous**. This part of the Indicator specifies an avenue of conformance where reasonable and sufficient growth can only be achieved through even-aged management, given the species needs for establishment and development, including in light of site-specific considerations.

Conformance with Part 1 of the Indicator should include:

1. Consideration of regional silvicultural practices involving the same native species. In areas where ownerships of similar scale, commercial capacity, and site conditions are actively and successfully employing uneven-aged management for the species in question, the manager provides written and robust justification that even-aged management is required for regeneration or vigorous young-stand development. This justification includes comparisons of tree establishment and growth under even-aged and uneven-aged management.
2. **Best available information** and research on seedling/sprout survival, establishment, and growth of a young stand of native tree species.
3. Data from on-site, or local and equivalent, field trials measuring the relationship between management regimes (opening sizes) and survivorship and growth. These field trials may be ongoing and should be used to provide periodic feedback to management decisions. In the absence of valid and applicable data from off-site studies, on-site field trials are generally expected to be included as evidence.
4. Written documentation supporting conformance with the Indicator.

No draft guidance on Part 2 of the Indicator was developed.

Draft guidance on Part 3 of the Indicator: *it is needed to restore structural diversity in a landscape lacking openings while maintaining connectivity of older intact forests.* Part 3 of the Indicator is within the context of restoration (“*restore structural diversity*”) and thus must include historical context.

Where assessments (see below) indicate the historical existence of a distribution of openings within all or a portion of the assessment area and a current landscape lacking representative openings, managers can use even-aged silviculture to re-create openings in those areas. The resulting distribution of openings should be guided by considerations of historical natural disturbance regimes and maintenance of functional wildlife habitat for native species or maintenance of ecosystems of conservation concern, including HCVF. The intent is largely, but not exclusively, about restoration of habitat diversity to historical conditions.

Conformance with Part 3 of the Indicator should include:

1. Assessments of natural disturbance regimes and associated distribution of openings at the watershed or planning unit level. Generally, the spatial scale of assessments should be within 10,000 - 20,000 acres.
2. Justification for the scale and configuration of the assessments. This should include consideration of the purpose of restoration and goals of restoring habitat heterogeneity (e.g. the suite of target species that benefit from habitat openings). Departures from the 10,000 - 20,000 acre size range are justified by ecological conditions or historic events.

3. A review of the assessment by independent qualified experts (e.g. wildlife biologists or landscape ecologists who are not biased because of past or present affiliations with the land owner/manager or other interested stakeholders) to confirm the findings. The adequacy of the assessment should be based upon the quality of input into the assessment, and may include expert opinion and literature.