

Regional Opening Size and Retention Guidelines

Southeast Region – Standard Language and Guidance (Advisory)

FSC-US Forest Management Standard (v1.0) language

Indicator 6.3.g.1 In Southeast, Appalachia, Ozark-Ouachita, Mississippi Alluvial Valley, and Pacific Coast Regions, when even-aged systems are employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit as described in Appendix C for the applicable region.

Appendix C

The guidelines describe below are not binding to the certification of forest management in the Southeastern United States. They have been retained in order to provide certification bodies and other stakeholders in forest certification with the spirit of the original, SE Regional Standard position on the use and size of clear-cuts.

Indicator 6.3.g.1.a

- Primary and natural forests: clearcutting is not allowed. Harvesting is not allowed at all in primary forests.
- Semi-natural forests: stands with trees greater than 100 years old: clearcutting is not allowed; even-aged stands of hardwood and cypress; clearcutting is allowed; the size of openings should be conservative.
- Even-aged stands of pine and pine/hardwood; clearcutting is allowed; the size of openings should not be higher than the limit for plantations and should be justified by natural regeneration requirements.

Clearcuts up to 80 acres are allowed in cases where a 40 acre stand would not provide enough timber volume to secure an economically operable timber sale, meaning that the sale would not attract a buyer and/or the landowner would not make a profit from the sale.

Clearcuts up to 80 acres are allowed in cases where harvesting a stand in 40 acre blocks would cause unnecessary environmental disturbance to the area surrounding the stand.

An exception to all of the limits on the use and size of clearcuts can be made in cases of ecologic necessity.

FSC Fact Sheet – Table 3. FSC-US Regional Harvest Limit Guidance (Advisory) – Optional – but justified

Southeast – Opening sizes in pine or pine/hardwood stands should not be larger than allowed for Principle 10 plantations (generally, not more than a 40 acre average with an 80 acre maximum without retention) and should be justified for regeneration purposes.

Southeast – Clearcuts should generally be constrained to <40 acres, although clearcuts up to 80 acres are allowed if necessary for a commercially operable sale or for ecological purposes. Larger harvests over these limits are possible with silvicultural/ecological justification.

FSC-US Forest Management Standard (v1.0) language

Indicator 10.2.c In all regions except the Pacific Coast, openings lacking within-stand retention are limited to a 40 acre average and an 80 acre maximum. Harvest openings larger than 80 acres must have retention as required in Indicator 10.2.d and be justified by credible scientific analysis. The average for all openings (with and without retention) does not exceed 100 acres.

Indicator 10.2.d On openings larger than 80 acres that are justified by credible scientific analysis live trees and native vegetation are retained in a proportion and configuration that are consistent with the characteristic natural disturbance regime in each community type, unless retention at a lower level is necessary for restoration purposes.

FSC-US FM (6.3.g.1)

live trees and other native vegetation are retained within the harvest unit as described in

Appendix C

the size of openings should not be higher than the limit for plantations

FSC Fact Sheet – Table 3. FSC-US Regional Harvest Limit Guidance (Advisory)

Southeast – Opening sizes in pine or pine/hardwood stands should not be larger than allowed for Principle 10 plantations

Indicator 10.2.c In all regions except the Pacific Coast, openings lacking within-stand retention are limited to a 40 acre average and an 80 acre maximum. Harvest openings larger than 80 acres must have retention as required in Indicator 10.2.d and be justified by credible scientific analysis. The average for all openings (with and without retention) does not exceed 100 acres.

Based on the above standard language and flow chart summary of the FSC standard and guidance documents. We have concluded the following when we look at in-stand retention and final harvest size and how it relates to the Four States Timberland Owners Association.

1. We must retain, live trees and other native vegetation within the harvest unit as described in FSC FM Standard.
2. Appendix C guidelines are non-binding in the Southeastern United States but in the spirit of FSC we should limit the size of openings not larger than the limit for plantations (Principle 10).
3. Opening sizes are referenced again in Table 3 of FSC-US Regional Harvest Limit Guidance document, referencing back to limits that are allowed in Principle 10.
4. Indicator 10.2.c lays out clear guidelines that openings lacking within-stand retention are limited to a 40 acre “average” and an 80 acre “maximum”. Harvest openings larger than 80 acres “must have retention” as required in Indicator 10.2.d. The “average for all openings” (with and without retention) does not exceed 100 acres.

Retention as defined in the standard is;

Living vegetation, including trees, shrubs, and herbaceous species, that is retained during even-aged and two-aged regeneration harvests.

The standard does state the “Trees selected for retention are generally representative of the dominant species naturally found on the site.” And in the intent section states, “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.”

In order to be in compliance with the FSC-FM standard on the lands managed by the Four State Timberland Owners Association our policy for final harvest size and retention will be as follows;

- Final harvests from 0-80 acres are not required to have any retention.
- Any snags, legacy trees should be left as long as not to endanger the health or safety of persons visiting the site.
- Final harvests larger than 80 acres will leave retention trees on the area that exceeds the 80 acre limit and are not classified as a high value product to the landowner. (whips, non-merchantable species, wildlife corridors, SMZ's, Etc.)
- The “average for all openings” (with and without retention) does not exceed 100 acres.
- Final harvest size will never exceed 200 contiguous acres.
- Downed Woody Material (DWM) will be retained on the harvest site to replenish nutrients, provide habitat for wildlife and help with soil stabilization of the site.
- There are two methods in which to achieve the necessary retention rates on final harvested areas
 - Single tree retention - A retention rate of 4 trees, snags or shrubs per acre is required on all harvest areas over 80 acres in size.
 - Group retention – A retention rate of 5% or 1 acre of retention for every 20 acres harvested over the initial 80 acre limit not requiring retention. This can be in the form of wildlife corridors, SMZ's, tree clumps, islands, etc.
- All retention is subject to herbicide applications while site prep operations are being conducted which may result in premature mortality, thus creating wildlife habitat for certain species.

Definition of Retention as defined by FSTOA – Living and/or dead vegetation, including trees, snags, legacy trees, shrubs, and herbaceous species, that is retained during regeneration harvests. (Tree must be at least 3” in diameter to qualify as a “Tree”)

The above FSTOA policy was developed from several forestry related studies analyzing clearcuts and harvest areas with retention. The basic conclusion is they both have their own positive and negative aspects to that method of management.

A study in the "Journal of Applied Ecology – Can retention forestry help conserve biodiversity" states, "Retention cuts supported higher forest species richness and abundance compared to clearcuts, but lower richness and abundance than un-harvested forest. In contrast, species richness and abundance of open-habitat species in retention cuts were lower than in clearcuts, but higher than in un-harvested forests. Species richness and abundance of generalists did not differ between retention cuts and clearcuts. Their abundance but not richness was higher in retention cuts than in un-harvested forests."

Another study from the "Environmental Defense Fund – Ecology of Dead Wood in the Southeast" states, "plantations in South Carolina have 8.2 snags per acre and a recruitment rate of 1.9 snags per year, which is about 72% of comparable natural forest stands. About 50% of snags from a given year fall after three to four years (Moorman et al. 1999)". So with the recruitment rate of 1.9 snags per year on 80 acres that is roughly 152 snags per year being produced. If we are losing 50% of these after 3-4 years, if a stand of age 12 starts this process. At year 16 we will have roughly 608 snags and roughly 50% will fall that leaves us with 304 + the 1.9 of new mortality. We will eventually average out somewhere with 300-350 dead snags at any one time on 80 acres which is 4 snags per acre which is what our FSTOA retention number is based on.