FactSheet
FOREST STEWARDSHIP COUNCIL–US

How FSC Forest Management Differs from Standard Plans

Many family forest owners across the United States utilize forest management plans based on requirements for the federal Forest Stewardship Program (FSP). The federal program, administered by the U.S. Forest Service and state forestry agencies, has helped nearly 300,000 forest landowners covering approximately 32 million acres receive written forestry plans over the past twenty years. Such plans are a prerequisite for cost sharing assistance under state and national forestry incentive programs. Growth in FSP planning assistance is also a key factor determining the allocation of federal forestry funding to the states.

A common question is whether FSP family forest management plans can be used for Forest Stewardship Council (FSC) certification. Yes! Forest management plans prepared according to federal guidelines current in 2011 are likely to include all the core family forest plan indicators found in FSC-US Principle 7, presented as a checklist in Table 1. The overall FSC standard covering nine additional FSC Principles does, however, contain other considerations that should be addressed in the planning *system*; if not in initial site-level plans presented to landowners then in other plan parts or group procedures. This factsheet is intended to help groups identify additional family forest plan considerations that will lead to conformance with the FSC-US Forest Management Standard.

An FSC conformant management plan needs only to be as complex as the forest and activities to which it applies. It must include all components listed for a core management plan, but some components may be addressed briefly and without reference to technical documents. Also, a group of independent documents (multi-part plans) that addresses core elements can supplement the site-level plans provided to landowners and be considered part of the management plan. Using multi-part plans can significantly streamline landowners' initial site-level forest management plans.

Additional components that can be utilized in multi-part plans include resources that may already be available from the State Forestry Agency, U.S. Forest Service, State University, Environmental Non-Governmental Organizations, State Historical Societies, Tribal Cultural Affairs Offices and other credible sources. An example set of additional plan parts[1] includes:

- State Silviculture Handbook
- Generally Accepted Forest Management Guidelines
- Best Management Practices for Water Quality
- Logging Equipment and Logging Engineering Guidelines
- Invasive Species Risk Assessments and Control Guidelines
- Biomass Harvests Guidelines

[1] Groups could edit this list to reflect actual plan components that are in use.

- Ecological Landscapes Handbook
- State Wildlife Action Plan
- Statewide or Regional Forestry Assessment and Strategies
- State Spatial Analysis Project (SAP), including identification of land in Important Forest Resource Areas as defined by the USDA Forest Stewardship Program
- High Conservation Value Forest (HCVF) Assessments[2] done by the State Conservation Agency, Group Entity or cooperating organizations
- Forest Inventory Analysis (FIA) and Continuous Forest Inventory (CFI) data
- Geographic Information System (GIS) software and geographic libraries
- Natural Heritage Inventory (NHI) or State Biotic Inventory, including Old Growth Assessments
- Cultural and historic databases
- State Forest Health surveys, reports and bulletins
- State BMP monitoring reports
- State wildlife population surveys
- State timber harvest and reforestation compliance surveys
- U.S. Dept. of Labor – Occupational and Safety & Health Administration Logging "eTool"

Optionally, if a landowner is seeking FSC certification through a group program, the Group Entity could develop a comprehensive landscape overview plan to provide background and ecosystem management guidance for reference in individual plans, thereby helping to keep parcel-specific plans relatively simple. If a core element is not included in the site-level plan used by a landowner, a checklist or other reference in the site-level plan is recommended so that the landowner or manager can find additional documentation if needed.

Beyond the core plan elements, additional significant FSC considerations that should be addressed in the planning system include:

- Monitoring. The federal Forest Stewardship Program requires monitoring, but FSC is more specific about what should be monitored. A Family Forests Monitoring Plan Checklist is provided in Table 2 to clarify how a family forest group can address FSC monitoring.
- Inventory data. Both the federal Forest Stewardship Program and FSC require that plans include a description of the forest resources (forest condition class) to be managed. FSC is somewhat more specific by calling for stand-level descriptions of the land cover, minimally including species and size/age classes that are based on *quantitative* and qualitative descriptions[3]. While FSC-US doesn't specify a required level of sampling intensity, auditors will look for evidence of basic stand-level quantitative data related to factors used for decision making in the plan. For example, if the plan calls for thinning or harvests based on basal area or trees per acre, reconnaissance should at a minimum include a simple measurement of basal area or trees per acre. How (e.g., boots on the ground or remote sensing) or how many samples are measured

[2] Use of HCVF terminology is not required. State and regional assessments and planning reports that get at HCVF concepts may be utilized regardless of whether they incorporate FSC language.

[3] As required in Family Forests Indicator 7.1.a.ii. Also, state Forest Inventory Analysis (FIA) data may be useful for elements of a forest inventory system described in Criterion 8.2 that are not maintained to the stand-level.

are not advised in the FSC-US indicators, but FSC conformant plans should not be based solely on walk-through or drive-by qualitative analysis.

- Annual allowable harvest. FSC-US Indicator 5.6.a requires forest management units that don't qualify for modified Family Forest Indicators to calculate a sustained yield harvest level. For smaller family forests, however, a more flexible sustained yield harvest level analysis is generally allowed. Planning documents should include either a sustained yield harvest calculation or other harvest level explanation related to stocking, species composition, age or development classes of stands, wildlife habitat, etc. See guidance in Table 1.
- FSC Highly Hazardous Pesticides. States rely on U.S. and state Environmental Protection Agency (EPA) rules for identifying prohibited and restricted use chemicals. FSC, however, maintains its own list of chemicals it considers to be highly hazardous. While there is considerable overlap between EPA and FSC precautions, FSC discourages use of some products that are available for purchase under EPA rules. Plans should explain that chemicals FSC identifies as Highly Hazardous may not be used unless the group has an approved derogation (variance) from FSC-US.
- Whether planted trees are considered "natural/semi-natural" forests or Principle 10 Plantations. Special considerations apply to Principle 10 Plantations, which are usually highly regimented and made up of blocks of trees not native to a site (like Eucalyptus plantings anywhere in the United States or loblolly stands on the Cumberland Plateau where the species did not naturally grow), cloned trees lacking natural genetic variation and other types of planted areas that lack traits of natural forests. See the FSC-US Factsheet on Forest Plantations for additional information.
- Harvest opening size limits and tree retention requirements. FSC forest management indicators allow the use of silvicultural systems – including clearcuts – that are scientifically warranted to regenerate the forest cover types being managed. Although FSC does not create limits on the size of clearcuts that include appropriate tree retention, there are regional limits on maximum clearcuts sizes without retention. See the FSC-US Factsheet on Regional Variation in Timber Harvest Limits for more information.
- Riparian Management Zone (RMZ) buffer widths. Forest Stewardship Plans require compliance with state BMPs for water quality, which often reflect state and local regulations regarding the width of RMZ buffers. There may be additional RMZ buffer width specifications for some regions as listed in Appendix E of the FSC-US Forest Management Standard.
- Prohibition on planting Genetically Modified Organisms (GMOs) in the forest. A GMO is an organism whose genetic material has been altered using genetic engineering techniques. These techniques, generally known as recombinant DNA technology, use DNA molecules from different sources, which are combined into one molecule to create a new set of genes. While GMOs are common in agricultural crops, they are less so for trees. The FSC standard prohibits planting GMOs in forests. (Wildlife food plots or croplands that utilize GMO plants like Roundup Ready® corn and soybeans may be excised from the FSC-certified area.)
- Chain of custody for forest products. Chain-of-custody (CoC) is an important aspect of the FSC system. For products claimed to be sourced from FSC-certified forests, CoC tracks certified products from the forest of origin throughout the supply chain. The critical first link in the supply

chain is from the point of harvest to the transfer of ownership, and it is the responsibility of the forest owner/manager of a FSC-certified forest to maintain the integrity of certified products within this first link in the supply chain. When forest products are being sold as FSC-certified, the forest owner or manager must follow a system that prevents mixing of FSC-certified and non-certified forest products prior to the point of sale. For their part in CoC, forest owners must include their FSC certificate number and FSC claim (FSC Pure) on timber sale records such as the sale prospectus and invoice.

Other FSC-US Forest Management Standard considerations not listed here could also be called out in planning documents if a Group Entity finds it helpful for achieving consistent conformance.

Table 1: Checklist for Core FSC-US Family Forest Plan Components

A written management plan exists for the property or properties for which certification is being sought. The following elements must be addressed either in the site-level plan provided to the landowner ***or in other written documentation that the Forest Management Entity designates as part of the plan.*** This might include an overview plan, group policies, state conservation agency publications and databases, detailed practice plans, etc. Guidance from the FSC-US Standard is shown in red text.

	Present?		
FSC-US Family Forests Indicator 7.1.a Required Component	**Yes**	**No**	**Remarks (Note where indicator is generally addressed in planning documents.)**
Family Forests Indicator 7.1.a. A written management plan exists for the property or properties for which certification is being sought. The management plan includes the following components:			
i. Management objectives (ecological, silvicultural, social, and economic)			
...and duration of the plan			
Guidance: Objectives relate to the goals expressed by the landowner within the constraints of site capability and the best available data on ecological, silvicultural, social and economic conditions.			
ii. Quantitative and qualitative description of the forest resources to be managed, including at minimum stand-level descriptions of the land cover, including **species and size/age class**.			
Guidance: In addition to stand-level descriptions of the land cover, information in site-level plans may include: landscape within which the forest is located; landscape-level considerations; past land uses of the forest; legal history and current status; socio-economic conditions; cultural, tribal and customary use issues and other relevant details that explain or justify management prescriptions.			
iii. Description of silvicultural and/or other management system, and...			
... prescriptions, rationale,			
...typical harvest systems (if applicable) that will be used			
iv. Description of harvest limits (consistent with Criterion 5.6) and species selection. **From FSC-US Guidance**: Calculation of a discrete Annual Allowable Cut using conventional area and/or volume control methods is necessary only if the acreage and forest cover types lend themselves to those techniques. In situations where the calculation of a sustained yield harvest level is impractical due to size or scale of operations, harvest levels may be based on maintaining or attaining desired forest conditions, such as stocking, species composition, and age and /or development classes of stands, and wildlife habitat.			[FSC-US Indicator 5.6.a requires most forest management units to document a sustained yield harvest level calculation. For smaller family forests, however, a more flexible sustained yield harvest level analysis may be allowed.]

v. Description of environmental assessment and safeguards based on the assessment, including approaches to:			
(1) pest and weed management,			
(2) fire management,			
(3) protection of riparian management zones			
(4) protection of representative samples of existing ecosystems (see Criterion 6.4)			
...and management of High Conservation Value Forests (see Principle 9)			
Guidance: Regional environmental assessments and safeguards or strategies to address pest and weed management, fire management, protection of rare, threatened, and endangered species and plant community types, protection of riparian management zones, and protecting representative samples of ecosystems and High Conservation Value Forests may be developed by state conservation agencies. Site specific plans for family forests should be consistent with such guidance and may reference those works for clarity.			
vi. Description of protection of rare species and plant community types.			
vii. Description of procedures to monitor the forest, including…			[See separate Monitoring Plan Template]
... forest growth and dynamics			[See separate Monitoring Plan Template]
… and other components as outlined in Principle 8			[See separate Monitoring Plan Template]
viii. Maps represent property boundaries, use rights, land cover types, significant hydrologic features, roads, adjoining land use, and protected areas in a manner that clearly relates to the forest description and management prescriptions.			
Guidance: Property level maps for family forests may be simple and efficient to produce, and may cover only the necessary information needed for management to the FSC-US Family Forest Standard. At the group level, if GIS is used coverage should include protected areas, planned management activities, land ownership, property boundaries, roads, timber production areas, forest types by age class, topography, soils, cultural and customary use areas, locations of natural communities, habitats of species referred to in Criterion 6.2, riparian zones and analysis capabilities to help identify High Conservation Value Forests. Group managers may rely on state conservation agencies for complex GIS services.			

Table 2: Example Group Monitoring Plan

Monitoring indicators in the left column are from the FSC-US Forest Management Standard. Guidance from the Standard is noted in red text.

Effective Who, How and When measures are up to each group program and depend upon group and external partner roles. *Example responses shown here should be replaced with a group's actual procedures.* Items marked below as "Generally Not Applicable – Family Forests" are so designated in the standard but could vary depending on Group Type.

What is Monitored? (From FSC-US Forest Management Principle 8)	**Who?**	**How?**	**When?**
8.1.a. Consistent with the scale and intensity of management, the forest owner or manager develops and consistently implements a regular, comprehensive, and replicable written monitoring protocol.			
Family Forests (FF) Indicator 8.1.a. For Family Forests, the forest owner or manager develops and consistently implements a regular, comprehensive, and replicable written monitoring protocol. Monitoring may be scaled to the size and intensity of the management operations that affect the resources identified in C8.2.			
8.2.a.1. For all commercially harvested products, an inventory system is maintained. The inventory system includes at a minimum:			
a) species, b) volumes, c) stocking,	Forest Manager/Landowner	Forest inventory used to prepare forest management plan; post-harvest inventory updates; data updates after management or other stand-changing events	Planning reconnaissance; after active management practices
d) regeneration	Shared (Forest Manager/Group Entity)	Post-harvest site inspections; reforestation survival exams	Typically four to five months after harvest or planting and again three years after harvest or planting.
e) stand and forest composition and structure; and	Forest Manager/Landowner	Forest inventory used to prepare forest management plan; post-harvest inventory updates; data updates after management or other stand-changing events	Planning reconnaissance; after active management practices

f) timber quality	Forest Manager/Landowner	Forest inventory used to prepare forest management plan; post-harvest inventory updates; data updates after management or other stand-changing events	Planning reconnaissance; after active management practices
8.2.a.2. Significant, unanticipated removal or loss or increased vulnerability of forest resources is monitored and recorded. Recorded information shall include date and location of occurrence, description of disturbance, extent and severity of loss, and may be both quantitative and qualitative.	Forest Manager/Landowner	Post-event site inspections	After fires, catastrophic pest outbreaks, wind storms, etc.
8.2.b The forest owner or manager maintains records of harvested timber and NTFPs (volume and product and/or grade).	Shared (Forest Manager/Group Entity)	The forest manager/owner keeps records of commercial harvests (typically as needed for state and federal income tax purposes). Harvest volumes are reported to the Group Entity, who prepares annual summary data.	Ongoing with annual summary reports.
8.2.c. The forest owner or manager periodically obtains data needed to monitor presence on the FMU of:			
1) Rare, threatened and endangered species and/or their habitats;	Shared (Forest Manager/Cooperating External Entity)	As part of initial forest inventory and prior to commencing site disturbing activities based on a check of the State Biological Survey/Natural Heritage Inventory. The State Conservation Agency and other partners like The Nature Conservancy usually conduct landscape-level monitoring and prepare Wildlife Action Plans and other ecological assessments referenced as part of the Group's Forest Management Planning System.	Ongoing

2) Common and rare plant communities and/or habitat;	Shared (Forest Manager/Cooperating External Entity)	As part of initial forest inventory and prior to commencing site disturbing activities based on a check of the State Biological Survey/Natural Heritage Inventory/Wildlife Action Plan and other ecosystem planning tools. The State Conservation Agency and other partners conduct landscape-level monitoring and prepare Wildlife Action Plans and other ecological assessments referenced as part of the Group's Forest Management Planning System.	Ongoing
3) Location, presence and abundance of invasive species;	Shared - All Parties	Forest inventories, internal monitoring, FIA-CFI plots, state forest health reports.	Ongoing
4) Condition of protected areas, set-asides and buffer zones;	Shared - All Parties	Forest inventories, timber harvest administration, internal monitoring, Natural Heritage Inventory reviews, etc.	Typically as part of management planning process, internal audits, State Conservation Agency assessments
5) High Conservation Value Forests (see Criterion 9.4).	Shared (Forest Manager/Cooperating External Entity)	Usually, landscape level assessments conducted by the State Conservation Agency. See assessments identified in the Group's Forest Management Planning System.	Ongoing

8.2.d.1. Monitoring is conducted to ensure that site specific plans and operations are properly implemented, environmental impacts of site disturbing operations are minimized, and that harvest prescriptions and guidelines are effective. [See also: Indicator 6.5.b Forest operations meet or exceed Best Management Practices (BMPs) that address components of the Criterion where the operation takes place. Indicator 5.3.a Management practices are employed to minimize the loss and/or waste of harvested forest products. Indicator 5.3.b Harvest practices are managed to protect residual trees and other forest resources, including: soil compaction, rutting and erosion are minimized; residual trees are not significantly damaged to the extent that health, growth, or values are noticeably affected; damage to NTFPs is minimized during management activities; and techniques and equipment that minimize impacts to vegetation, soil, and water are used whenever feasible. See indicators regarding opening size limits, tree retention, and RMZ buffers in 6.3.f, 6.3.g and 6.5.e. Also, safety-related considerations in 4.2.a and 4.2.b.]	Shared - All Parties	Forest Manager/Landowner timber sale administration; internal monitoring by the Group Entity; BMP compliance monitoring by State Conservation Agencies; OSHA safety compliance monitoring by federal or state agencies.	During and after active management
8.2.d.2. A monitoring program is in place to assess the condition and environmental impacts of the forest-road system. [Guidance: Road system monitoring may include but is not limited to: potential slope failures, erosion and water quality impacts, aquatic species' passage, overall road extent and density, and impacts of skid trails and other non-permanent roads. Monitoring requirements may be minimized in areas where there is no management activity and/or on non-active roads]	Shared - All Parties	Usually informal monitoring during property visits by Forest Manager/Landowner, although larger properties might have regular road/trail inspections; timber harvest administration; Group Entity as part of internal monitoring; State Conservation Agency as part of BMP monitoring	Ongoing
8.2.d.3. The landowner or manager monitors relevant socio-economic issues (see Indicator 4.4.a), including the social impacts of harvesting, participation in local economic opportunities (see Indicator 4.1.g), the creation and/or maintenance of quality job opportunities (see Indicator 4.1.b), and local purchasing opportunities (see Indicator 4.1.e).	**Generally Not Applicable - Family Forests**		
8.2.d.4. Stakeholder responses to management activities are monitored and recorded as necessary.	**Generally Not Applicable - Family Forests**		
8.2.d.5. Where sites of cultural significance exist, the opportunity to jointly monitor sites of cultural significance is offered to tribal representatives (see Principle 3).	**Generally Not Applicable - Family Forests**		

8.2.e. The forest owner or manager monitors the costs and revenues of management in order to assess productivity and efficiency.	Forest Manager/Landowner	Informal for family forests, usually associated with taxes and investment planning	Ongoing or after active management
8.3.a. When forest products are being sold as FSC-certified, the forest owner or manager has a system that prevents mixing of FSC-certified and non-certified forest products prior to the point of sale, with accompanying documentation to enable the tracing of the harvested material from each harvested product from its origin to the point of sale.	Group Entity	Included in Group operating procedures	Group establishment, with procedures updated as needed.
8.3.b The forest owner or manager maintains documentation to enable the tracing of the harvested material from each harvested product from its origin to the point of sale.	Shared (Forest Manager/Group Entity)	Forest manager/owner keeps certified harvest records and reports volumes to the Group Entity. Owner submits cutting notice/report to Group Entity. Group Entity reviews harvests and prepares annual summaries.	In conjunction with harvests
8.4.a. The forest owner or manager monitors and documents the degree to which the objectives stated in the management plan are being fulfilled, as well as significant deviations from the plan.	Shared (Forest Manager/Group Entity)	Forest management database review of scheduled/completed practices, internal monitoring	Annual work planning, internal reviews
8.4.b. Where monitoring indicates that management objectives and guidelines, including those necessary for conformance with this Standard, are not being met or if changing conditions indicate that a change in management strategy is necessary, the management plan, operational plans, and/or other plan implementation measures are revised to ensure the objectives and guidelines will be met. If monitoring shows that the management objectives and guidelines themselves are not sufficient to ensure conformance with this Standard, then the objectives and guidelines are modified.	Shared (Forest Manager/Group Entity)	Internal monitoring.	Group policies outline conditions under which plans should be updated.
8.5.a. While protecting landowner confidentiality, either full monitoring results or an up-to-date summary of the most recent monitoring information is maintained, covering the Indicators listed in Criterion 8.2, and is available to the public, free or at a nominal price, upon request. [FF Applicability: Only those elements determined to be applicable to Criterion 8.2 need to be included in the monitoring results and/or summary.]	Group Entity	Annual public summary report.	

Additional Monitoring Issues Elsewhere in the FSC-US Forest Management Standard			
Indicator 6.6.e If chemicals are used, the effects are monitored and the results are used for adaptive management. Records are kept of pest occurrences, control measures, and incidences of worker exposure to chemicals. FF Guidance: Monitoring and recordkeeping may be brief and less technical for family forests, such as keeping a log or list of chemical use and application dates, rates, methods of application, the application area and effectiveness.	Shared (Forest Manager/Group Entity)	Forest Manager/Landowner keeps logs or informal records of pesticide use (especially for over-the-counter type products), although group policies might involve more formal record keeping for restricted use products or products covered FSC derogations. Landowner may also want to keep records of non-chemical controls to show that pesticides are only used when alternatives are not available or practical.	Ongoing with pesticide use prescriptions, purchases, application. Possibly involving annual summary reports for restricted use products.
Indicator 6.8.c If biological control agents are used, their use is documented, monitored and strictly controlled in accordance with state and national laws and internationally accepted scientific protocols. A written plan will be developed and implemented justifying such use, describing the risks, specifying the precautions workers will employ to avoid or minimize such risks, and describing how potential impacts will be monitored.	Cooperating External Entity	Federal Animal Plant Health Inspection Service (APHIS) regulator review; State Conservation Agency implementation or permits	
Indicator 6.9.b If exotic species are used, their provenance and the location of their use are documented, and their ecological effects are actively monitored. [Guidance: Monitoring intensity reflects the persistence and risk posed by the species and may be justified by consultation with regional experts or literature.]	Cooperating External Entity	State Conservation Agency invasive species assessments and control regulations	
Indicator 9.4.a The forest owner or manager monitors, or participates in a program to annually monitor, the status of the specific HCV attributes, including the effectiveness of the measures employed for their maintenance or enhancement. The monitoring program is designed and implemented consistent with the requirements of Principle 8. FF Indicator 9.4.a Low risk of negative social or environmental impact for private family forests.	**Generally Not Applicable - Family Forests**		

Principle 10 Plantations: C10.4 The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts	Shared - All Parties	Site specific analysis by Forest Manager/Landowner, perhaps with assistance from the Group Entity, State Conservation Agency, University Extension or other party	
Principle 10 Plantations: C10.8 Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.	Shared - All Parties	Site specific analysis by Forest Manager/Landowner, perhaps with assistance from the Group Entity, State Conservation Agency, University Extension or other party	

A template version of this Group Monitoring Plan is available as an Excel worksheet from FSC-US.