



Surveillance Audit Report

2010-2014 Sustainable Forestry Initiative® Standard

May 7, 2012

A. Name: Maryland DNR Forest Service

FRS #: 0Y301

B. Scope:

The forest management program of the Maryland Department of Natural Resources on the following Maryland State Forests: Chesapeake Forest Lands, Pocomoke State Forest, Green Ridge State Forest, Garrett State Forest, Potomac State Forest, and the Savage River State Forest. The SFI Certificate Number is NSF-SFIS-0Y301.

No Change Changed

C. NSF Audit Team: Lead Auditor: Mike Ferrucci

Auditor: Anne Marie Kittredge

D. Audit Dates: April 30, 2012 to May 3, 2012

E. Reference Documentation:

2010-2014 SFI Standard®

Maryland Forest Service SFI Documentation: various dates and versions

F. Audit Results: Based on the results at this visit, the auditor concluded

Acceptable with no nonconformances; or

Acceptable with minor nonconformances to be corrected before the next scheduled audit;

Not acceptable with one or two major nonconformances - corrective action required;

Several major nonconformances - the certification may be canceled without immediate action

G. Changes to Operations or to the SFI Standard:

Are there any significant changes in operations, procedures, specifications, FRS, etc. from the previous visit? Yes No If yes, provide brief description of the changes:

H. Other Issues Reviewed:

Yes No Public report from previous audit(s) is posted on SFB web site.

Yes No N.A. SFI and other relevant logos or labels are utilized correctly.

Yes No The program is a Multi-site Organization:

Multi-Site Organization: A n organization having an identified central function (hereafter referred to as a central office — but not necessarily the headquarters of the organization) at which certain activities are planned, controlled or managed and a network of local offices or branches (sites) at which such activities are fully or partially carried out.

Source: SFI Requirements, Section 9, Appendix: Audits of Multi-Site Organizations

- IAF-MD1 or The alternate approach outlined in SFI Requirements, Section 9, Appendix 1 was assessed by NSF's Lead Auditor during the certification audit.
- Yes No Concerns/ issues are listed in the checklist (to be reviewed by NSF Forestry Program Manager)

I. Corrective Action Requests:

Corrective Action Requests issued this visit (through NSF's on-line OASIS audit tool):

Previous Minor Non-conformance SFI Indicator 2.3.6 was raised to a Major Non-conformance.

- Corrective Action Plan is not required.
- Corrective Action Plan is required within sixty days of this visit (for Minor Nonconformances).
CARs will be verified during the next Surveillance Audit.
- Corrective Action Plan is required within thirty days of this visit (for Major Nonconformances). The auditor will make arrangements to verify the corrective action has been effectively implemented. The major nonconformance must be closed by the auditor prior to the next scheduled surveillance audit (via desk review), or the certificate may be withdrawn.

Your Corrective Action Plans should be provided through your NSF On-line Interface.

At the conclusion of this Surveillance Audit visit, the following CARs remain open:

MAJOR(S): 0 MINOR(S): 0 Opportunities for Improvement (OFIs) identified: 4

H. Future Audit Schedule:

Follow-up or Surveillance Audits are required by the 2010-2014 Sustainable Forestry Initiative Standard ®. The next Surveillance Audit is scheduled for the week of April 22, 2013. The assigned lead auditor will contact you 2-3 months prior to this date to reconfirm and begin preparations. Recertification must be completed before May, 2014. *For multi-site organizations* the sampling plan requires audits of the central function and at least 2 of 5 forests each year.

Appendices:

Appendix I: Surveillance Notification Letter and Audit Schedule

Appendix II: Public Surveillance Audit Report

Appendix III: Audit Matrix

Appendix IV: Notes and List of Participants

Appendix V: SFI Reporting Form

Appendix I



**Surveillance Notification Letter
and Audit Schedule**



April 24, 2012

Re: Confirmation of SFI Surveillance Audit, Maryland Forest Service

Jack Perdue, Maryland DNR Forest Service
580 Taylor Avenue
Annapolis, MD 21401

Dear Mr. Perdue

We are scheduled to conduct the FSC and SFI Scope 2012 Surveillance Audits of your state forest system the week of April 30. This letter provides the SFI audit plan; the FSC audit plan is being developed by Anne Marie Kittredge, SCS Lead Auditor.

The SFI audit is a partial review of your SFI Program to confirm that it continues to be in conformance with the SFI Standard and that continual improvement is being made. The scope statement (appearing on your certificate) is as follows:

The forest management program of the Maryland Department of Natural Resources on the following Maryland State Forests: Chesapeake Forest Lands, Pocomoke State Forest, Green Ridge State Forest, Garrett State Forest, Potomac State Forest, and the Savage River State Forest. The SFI Certificate Number is NSF-SFIS-0Y301.

The audits will commence with an opening meeting at 3 pm at your headquarters in Annapolis (please provide the address and suggestions for parking). The field audits will be conducted by two field teams: Anne Marie will cover the western forests with an FSC-focus (but some elements of the SFI Standard will be included); I will cover the eastern forests with an SFI-focus (but some elements of the FSC requirements will be included). Bios for each of the audit team members are provided in an attachment.

The closing meeting will occur on Thursday May 3, 2012 again at your offices, as follows:
8-9 am Remaining questions / Issues; 9:30 to 11 am Closing Meeting.

We have previously communicated preliminary versions of the attached agenda. Please review again as I've added more detail.

You have also provided some audit information (thanks). I ask for any advance information regarding the current status of corrective actions for the 3 SFI Minor Non-conformances from the 2011 audits.

During the SFI part of the audit I will:

1. Review progress on achieving SFI objectives and performance measures and the results of the management review of your SFI Program;
2. Review selected components of your SFI program (Objectives 1-7, 16-20);
3. Verify effective implementation of any corrective action plans from the previous NSF audit;
4. Review logo and/or label use;
5. Confirm public availability of public reports;
6. Evaluate the effectiveness of planned activities aimed at continual improvement of your SFI Program; and
7. Evaluate the multi-site requirements.

Multi-Site Sampling Plan:

Your responsibilities for Public Lands Stewardship include the role of “central administration” for this multi-site program. I plan on reviewing the SFI multi-site requirements following the opening meeting on the first day of the audit.

The following sites are included in the overall scope: Chesapeake Forest Lands, Pocomoke State Forest, Green Ridge State Forest, Garrett State Forest, Potomac State Forest, and the Savage River State Forest. The 2012 audit will include 4 of these 6 as follows: Chesapeake Forest Lands, Pocomoke State Forest, Green Ridge State Forest, and the Savage River State Forest. These forests were selected to include a broad cross-section of activities and of the sites (somewhat beyond the required sample size) and due to changes in management approaches (eastern forests) or due to issues that arose during the 2011 audits (western forests). Random sampling was not employed.

The enclosed tentative schedule outlines the topics I expect to review during this visit. The schedule can be adapted either in advance or on-site to accommodate any special circumstances. As during the certification audit we should plan to have lunch on site to expedite the visit.

I look forward to visiting you and evaluating continual improvement in your SFI Program. If you have any questions regarding this planned audit, please call me at [phone].

Best Regards,



Mike Ferrucci,
Lead Auditor, NSF-ISR, Ltd.
Enclosure: Agenda for Surveillance Audit

2012 Maryland State Forest Audit - Revised Itinerary

Auditors:

Eastern Route: Mike Ferrucci 203-887-9248 mferrucci@iforest.com
Mountains: Anne Marie Kittredge 413-259-1756, 413-230-0465 (cell) amkittredge@gmail.com

Monday April 30, 2012

3 to 5:30 pm Maryland Forest Service, Annapolis

- Opening Meeting
- Review of Changes
- Review of 2011 Non-conformances
- Management Review Requirements
- Multi-site Requirements
- Selected interviews (key personnel not participating in field visits)

6 – 7 pm (Optional) Dinner in Annapolis

Evening:

East Team: Sleep Inn, Salisbury (2 nights)

Mountains: Comfort Inn, Grantsville (2 nights)

May 1-2, 2012

East Team:

Tuesday May 1: Chesapeake Forest

8 am to 6 pm, including dinner meeting

8-10 am Chesapeake Forest Office (including Pocomoke SF documentation)

- Changes, activities since previous audit
- Site-level aspects of 2011 corrective action plans (if any)
- SFI requirements under Objectives 16, 17, and 18 (training, outreach, public lands)
- FSC issues

10 am to 5 pm: Field Audit

5 pm Dinner, daily debrief

Evening: East tour returns to Sleep Inn, Salisbury (2 nights)

Wednesday May 2, 8 am to 4 pm: Pocomoke SF Field Audit, and other remaining issued

Drive to Annapolis: 5-7 pm

Mountains (details to be provided by AMK):

Tuesday May 1: Savage River State Forest

8 am to 6 pm, including dinner meeting

Evening: Mountain tour returns to hotel in Grantsville

Wednesday May 2, 8 am to 3 pm: Green Ridge State Forest

Drive to Annapolis: 4-7 pm

May 2 Evening:

Both Auditors: Lodging in Annapolis

Thursday May 3, 2012

8 am to 11 am	Maryland Forest Service, Annapolis
8-9 am	Remaining questions / Issues
9:30 to 11 am	Closing Meeting

Appendix II



Maryland DNR Forest Service SFI Summary Surveillance Audit Report

Pending approval of corrective action plan for the 1 Major CAR ...

The SFI Program of the Maryland DNR Forest Service of Annapolis, Maryland has achieved continuing conformance with the SFI Standard®, 2010-2014 Edition, according to the NSF-ISR SFIS Certification Audit Process.

The Maryland DNR Forest Service initially obtained SFI Certification from NSF-ISR on July 24, 2003 (NSF-ISR initially certified the Chesapeake Forest in 2003, with two significant scope expansions since) and the program was re-certified in July, 2006. Initially only the Chesapeake Forest Lands were certified, with the Pocomoke State Forest added in 2009 as part of an expansion of scope that included other recently acquired lands. In 2011 the organization sought and was granted recertification within the expanded scope based on an audit of the six largest state forests against the SFI 2010-2014 Standard.

The state forests included in the current scope were certified to the SFIS on August 14, 2011. This report describes the first annual follow-up Surveillance Audit designed to focus on changes in operations, the management review system, and efforts at continuous improvement. In addition, a subset of SFI requirements were selected for detailed review.

Maryland's State Forests

Maryland DNR Forest Service is responsible for the management of the 209,330 acres of Maryland State Forests through a variety of designations. The Forest Service is supported by other agencies within the Department of Natural Resources including Wildlife, Fisheries, Heritage, and the Natural Resources Police. Various management plans provide a useful summary of the importance of these forestlands and the broad policy goals:

Excerpted from the Savage River State Forest Draft Management Plan:

‘The resources and values provided from state forests reach people throughout the State and beyond. These resources and values range from economic to aesthetic and from scientific to inspirational. The Department of Natural Resources is mandated by law to consider a wide variety of issues and uses when pursuing a management strategy for these forests. The importance of considering these factors is acknowledged in the Annotated Code, which establishes the following policy pertaining to state forests and parks:

"Forests, streams, valleys, wetlands, parks, scenic, historic and recreation areas of the state are basic assets. Their proper use, development, and preservation are necessary to protect and promote the health, safety, economy and general welfare of the people of the state. It is the policy of the state to encourage the economic development and the use of its natural

resources for the improvement of the local economy, preservation of natural beauty, and promotion of the recreational and leisure interest throughout the state." (Annotated Code of Maryland, Natural Resources Article §5-102)

The Department recognizes the many benefits provided by state forests and has established a corresponding management policy in regulation.

"The state forests are managed to promote the coordinated uses of their varied resources and values for the benefit of all people, for all time. Water, wildlife, wood, natural beauty and opportunities for natural environmental recreation, wildlands experience, research demonstration areas, and outdoor education are major forest benefits." (Code of Maryland Regulations 08.07.01.01)'

SFI 2010-2014 Standard Scope

Scope Statement: The forest management program of the Maryland Department of Natural Resources on the following Maryland State Forests: Chesapeake Forest Lands, Pocomoke State Forest, Green Ridge State Forest, Garrett State Forest, Potomac State Forest, and the Savage River State Forest. The SFI Certificate Number is NSF-SFIS-0Y301.

The audit was performed by NSF-ISR on April 25-30 by an audit team headed by Mike Ferrucci, Lead Auditor supported by Anne Marie Kittredge, Team Auditor. Audit team members fulfill the qualification criteria for conducting SFIS Certification Audits of "Section 9. SFI 2010-2014 Audit Procedures and Auditor Qualifications and Accreditation" contained in Requirements for the SFI 2010-2014 Program: Standards, Rules for Label Use, Procedures, and Guidance.

The scope of the SFIS Audit included land management requirements and general requirements; there are no milling or mill procurement operations. Land management and forestry practices that were the focus of field inspections included those that have been under active management over the planning period of the past year. Practices conducted earlier were also reviewed as appropriate (regeneration and BMP issues, for example). In addition, SFI obligations to promote sustainable forestry practices, to seek legal compliance, and to incorporate continual improvement systems were within the scope of the audit.

Several of the SFI Objective relating to procurement were outside of the scope of Maryland's SFI program and were excluded from the scope of the SFI Certification Audit as follows:

- Objective 8. Landowner Outreach: To broaden the practice of sustainable forestry by forest landowners through fiber sourcing programs.
- Objective 9. Use of Qualified Resource and Qualified Logging Professionals: To broaden the practice of sustainable forestry by encouraging forest landowners to utilize the services of forest management and harvesting professionals.
- Objective 10. Adherence to Best Management Practices: To broaden the practice of sustainable forestry through the use of best management practices to protect water quality.

- Objective 11. Promote Conservation of Biological Diversity, Biodiversity Hotspots and High-Biodiversity Wilderness Areas: To broaden the practice of sustainable forestry by conserving biological diversity, biodiversity hotspots and high-biodiversity wilderness areas.
- Objective 12. Avoidance of Controversial Sources including Illegal Logging: To broaden the practice of sustainable forestry by avoidance of illegal logging.
- Objective 13. Avoidance of Controversial Sources including Fiber Sourced from Areas without Effective Social Laws: To broaden the practice of sustainable forestry by avoiding controversial sources.

SFIS Audit Process

The objective of the audit was to assess continuing conformance of the firm's SFI Program to the requirements of the Sustainable Forestry Initiative® Standard, 2010-2014 Edition.

NSF-ISR initiated the SFIS audit process with a series of planning phone calls and emails to reconfirm the scope of the audit, review the SFI Indicators and evidence to be used to assess conformance, verify that Maryland DNR Forest Service was prepared to proceed to the SFIS Certification Audit, and to prepare a detailed audit plan. NSF then conducted the SFIS Certification Audit of conformance to the SFI Standard. A report was prepared and final approval was done by an independent Certification Board Member assigned by NSF. Follow-up or Surveillance Audits are required by the 2010-2014 Sustainable Forestry Initiative Standard ®. The initial Surveillance Audit is scheduled for April, 2013.

The audit was governed by a detailed audit plan designed to enable the audit team to efficiently determine conformance with the applicable SFI requirements. The plan provided for the assembly and review of audit evidence consisting of documents, interviews, and on-site inspections of ongoing or completed forest practices.

During the audit NSF-ISR reviewed a sample of the written documentation assembled to provide objective evidence of SFIS Conformance. NSF-ISR also selected field sites for inspection based upon the risk of environmental impact, likelihood of occurrence, special features, and other criteria outlined in the NSF-ISR SFI-SOP. NSF-ISR also selected and interviewed stakeholders such as contract loggers, landowners and other interested parties, and interviewed employees within the organization to confirm that the SFI Standard was understood and actively implemented.

The possible findings of the audit included Full Conformance, Major Non-conformance, Minor Non-conformance, Opportunities for Improvement, and Practices that exceeded the Basic Requirements of the SFIS.

Overview of Audit Findings

Maryland's SFI Program was found to be in overall conformance with the SFIS Standard.

Two of three Minor Non-conformances from the 2011 SFI Audit were closed as follows:

1. "Performance Measure 2.3 states '*Program Participants shall implement forest management practices to protect and maintain forest and soil productivity.*'
2011 Finding: "Some trails and permanent roads in the western forests have drainage provisions (crowns, road surfaces, cross drainage) which are not maintained adequately, resulting in erosion that is avoidable. ORV trails in particular are causing off-trail resource damage including sedimentation into pristine streams and damage to sensitive wetlands soils; much of this ORV-related damage involves unauthorized uses, but recent significant increased levels of trail use appear to be contributing to the problem."

Update: Closed 2011 Minor Non-conformance based on two developments. First, immediately following the 2011 audit selected ORV trails on two western and one eastern state forests were permanently closed. Second, up to \$2 million in special (one-time) funding may be allocated to the Maryland DNR Forest Service for road maintenance over the next two years. Roads remain a concern, were not thoroughly reviewed during the 2012 audit, and thus will be the primary focus area of the 2013 audit (progress in reducing the road maintenance backlog will be assessed).

2. "Indicator 4.1.4 calls for '*Development and implementation of criteria, as guided by regionally appropriate best scientific information, to retain stand-level wildlife habitat elements such as snags, stumps, mast trees, down woody debris, den trees and nest trees.*'
2011 Finding: "Retention of stand-level wildlife habitat elements such as snags, mast trees, down woody debris has not been consistent (western forests)."

Update: Closed 2011 Minor Non-conformance based on the development of a comprehensive policy for stand-level retention "Forest Stand Retention".

NSF-ISR's audit team determined that there was not sufficient progress on the following 2011 Minor Non-conformance: "Indicator 2.3.6 requires '*Criteria that address harvesting and site preparation to protect soil productivity.*' The western forests do not have criteria defining acceptable levels of rutting during harvests."

The finding was raised to a 2012 Major Non-conformance: Maryland DNR Forest Service has developed criteria defining acceptable levels of rutting during harvests, but these measures do not assure protection of soil productivity caused by rutting that is independent of erosion, a documented issue with forest soils.

Maryland DNR Forest Service **will develop and implement a revised policy** to address the Major Non-conformance. Progress in implementing this policy will be reviewed in subsequent surveillance audits.

Opportunities for Improvement

In 2011 fourteen opportunities for improvement were also identified, and most of these were resolved. Four opportunities for improvement were identified in the 2012 audit:

- There is an opportunity to improve in the western region by providing descriptions of annual harvest trends in relation to the sustainable forest management plan in a publicly available manner, and to include the PSF in the eastern region's Silvicultural Summary. (Indicator 1.1.2 requires "Documentation of annual harvest trends in relation to the sustainable forest management plan in a manner appropriate to document past and future activities.")
- There is an opportunity to improve implementation of the management plans in the western region regarding forest health and the treatment of overstocked stands. (Indicator 2.4.2 requires "Management to promote healthy and productive forest conditions to minimize susceptibility to damaging agents.")
- There is an opportunity to improve the implementation of the full range of issues that are normally covered by BMPs, particularly those related to road maintenance. (Indicator 3.1.1 requires "Program to implement state or provincial best management practices during all phases of management activities.")
- There is an opportunity to improve the system for assessing training needs and the documentation of training for contractors charged with forest management duties. (Indicator 16.1.4 requires "Contractor education and training sufficient to their roles and responsibilities.")

These findings do not indicate a current deficiency, but served to alert Maryland DNR Forest Service to areas that could be strengthened or which could merit future attention. The organization has already begun to modify its SFI Program in response to the identified opportunities for improvement.

Exceeds the Requirements of the SFI 2010-2014 Standard

NSF-ISR also identified the following areas where forestry practices and operations exceed the basic requirements of the SFI Standard:

- The program exceeds the requirements for protections of critically imperiled and imperiled species and communities, also known as Forests with Exceptional Conservation Values. (Indicator 4.1.3 requires "Program to locate and protect known sites associated with viable occurrences of critically imperiled and imperiled species and communities also known as Forests with Exceptional Conservation Value...")
- Maryland DNR is a leader in the designation and protection of old-growth and potential old-growth forests. (Indicator 4.1.6 "Support of and participation in plans or programs for the conservation of old-growth forests in the region of ownership.")

- An exceptional range of high-quality recreational opportunities are provided on the Maryland State Forests.
(Performance Measure 5.4 “Program Participants shall support and promote recreational opportunities for the public.”)
- The program for the identification and protection of special sites is exemplary.
(Performance Measure 6.1 “Program Participants shall identify special sites and manage them in a manner appropriate for their unique features.”)
- Maryland DNR Forest Service has exceptional programs for public land planning including active advisory committees and accessible and up-to-date web sites.
(Indicator 18.1.2: “Appropriate contact with local stakeholders over forest management issues through state, provincial, federal or independent collaboration.”)

General Description of Evidence of Conformity

NSF’s audit team used a variety of evidence to determine conformance. A general description of this evidence is provided below, organized by SFI Objective.

Objective 1. Forest Management Planning - To broaden the implementation of sustainable forestry by ensuring long-term forest productivity and yield based on the use of the best scientific information available.

Summary of Evidence – The forest management plans for each state forest and supporting documentation and the associated inventory data and growth models were the key evidence of conformance. The plans for all six of the forests involved (four plans cover the six forests) were key to this finding.

Objective 2. Forest Productivity - To ensure long-term forest productivity, carbon storage and conservation of forest resources through prompt reforestation, soil conservation, afforestation and other measures.

Summary of Evidence – Field observations and associated records were used to confirm practices. Maryland DNR Forest Service has programs for reforestation, for protection against insects, diseases, and wildfire, and for careful management of activities which could potentially impact soil and long-term productivity.

Objective 3. Protection and Maintenance of Water Resources - To protect water quality in streams, lakes and other water bodies.

Summary of Evidence – Field observations of a range of sites were the key evidence. Auditors visited the portions of many field sites that were closest to water resources.

Objective 4. Conservation of Biological Diversity including Forests with Exceptional Conservation Value To manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand- and landscape-level measures that promote habitat diversity and the conservation of forest plants and animals, including aquatic species.

Summary of Evidence – Field observations, written plans and policies for the protection of old growth, High Conservation Value Forests, and representative sample areas were the key evidence used to assess the requirements involved biodiversity conservation. This was supported by the extensive use of college-trained field biologists.

Objective 5. Management of Visual Quality and Recreational Benefits - To manage the visual impact of forest operations and provide recreational opportunities for the public.

Summary of Evidence – Field observations of completed operations and policies/procedures for visual quality were assessed during the evaluation. Further maps and descriptions of recreation sites, combined with selected field visits, helped confirm a strong recreation program. Stakeholder contacts supported the DNR’s statements regarding efforts to balance recreational use and environmental protections.

Objective 6. Protection of Special Sites - To manage lands that are ecologically, geologically, or culturally important in a manner that takes into account their unique qualities.

Summary of Evidence – Field observations of completed operations, GIS maps and other records of special sites, training records, and written protection plans were all assessed during the evaluation.

Objective 7. Efficient Use of Forest Resources - To promote the efficient use of forest resources.

Summary of Evidence – Field observations of completed operations, contract clauses, and discussions with supervising field foresters and with loggers provided the key evidence. The Maryland Forest Service is working to improve markets for forest products, particularly markets related to bioenergy.

Objectives 8 through 13 are not applicable.

Objective 14. Legal and Regulatory Compliance -

Compliance with applicable federal, provincial, state and local laws and regulations.

Summary of Evidence – Not reviewed during 2012 Surveillance Audit.

Objective 15. Forestry Research, Science, and Technology - To support forestry research, science, and technology, upon which sustainable forest management decisions are based.

Summary of Evidence – Not reviewed during 2012 Surveillance Audit.

Objective 16. Training and Education -To improve the implementation of sustainable forestry practices through appropriate training and education programs.

Summary of Evidence – Not reviewed during 2012 Surveillance Audit.

Objective 17. Community Involvement in the Practice of Sustainable Forestry -

To broaden the practice of sustainable forestry by encouraging the public and forestry community to participate in the commitment to sustainable forestry, and publicly report progress.

Summary of Evidence – Interviews, publications and the DNR website were used to confirm conformance with these requirements.

Objective 18: Public Land Management Responsibilities -

To support and implement sustainable forest management on public lands.

Summary of Evidence – The audit team reviewed written and on-line documentation of the extensive public involvement processes.

Objective 19. Communications and Public Reporting - To broaden the practice of sustainable forestry by documenting progress and opportunities for improvement.

Summary of Evidence – Reports filed with SFI Inc. and the SFI Inc. website provided the key evidence.

Objective 20. Management Review and Continual Improvement - To promote continual improvement in the practice of sustainable forestry, and to monitor, measure, and report performance in achieving the commitment to sustainable forestry.

Summary of Evidence – Records of program reviews, agendas and notes from management review meetings, and interviews with personnel from all involved levels in the organization were assessed.

Relevance of Forestry Certification

Third-party certification provides assurance that forests are being managed under the principles of sustainable forestry, which are described in the Sustainable Forestry Initiative Standard as:

1. Sustainable Forestry

To practice sustainable forestry to meet the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic that integrates reforestation and the managing, growing, nurturing and harvesting of trees for useful products and ecosystem services such as the conservation of soil, air and water quality, carbon, biological diversity, wildlife and aquatic habitats, recreation, and aesthetics.

2. Forest Productivity and Health

To provide for regeneration after harvest and maintain the productive capacity of the forest land base, and to protect and maintain long-term forest and soil productivity. In addition, to protect forests from economically or environmentally undesirable levels of wildfire, pests, diseases, invasive exotic plants and animals and other damaging agents and thus maintain and improve long-term forest health and productivity.

3. Protection of Water Resources

To protect water bodies and riparian zones, and to conform with best management practices to protect water quality.

4. Protection of Biological Diversity

To manage forests in ways that protect and promote biological diversity, including animal and plant species, wildlife habitats, and ecological or natural community types.

5. Aesthetics and Recreation

To manage the visual impacts of forest operations, and to provide recreational opportunities for the public.

6. Protection of Special Sites

To manage forests and lands of special significance (ecologically, geologically or culturally important) in a manner that protects their integrity and takes into account their unique qualities.

7. Responsible Fiber Sourcing Practices in North America

To use and promote among other forest landowners sustainable forestry practices that are both scientifically credible and economically, environmentally and socially responsible.

8. Avoidance of Controversial Sources including Illegal Logging in Offshore Fiber Sourcing

To avoid wood fiber from illegally logged forests when procuring fiber outside of North America, and to avoid sourcing fiber from countries without effective social laws.

9. Legal Compliance

To comply with applicable federal, provincial, state, and local forestry and related environmental laws, statutes, and regulations.

10. Research

To support advances in sustainable forest management through forestry research, science and technology.

11. Training and Education

To improve the practice of sustainable forestry through training and education programs.

12. Public Involvement

To broaden the practice of sustainable forestry on public lands through community involvement.

13. Transparency

To broaden the understanding of forest certification to the SFI 2010-2014 Standard by documenting certification audits and making the findings publicly available.

14. Continual Improvement

To continually improve the practice of forest management, and to monitor, measure and report performance in achieving the commitment to sustainable forestry.

Source: Sustainable Forestry Initiative® (SFI) Standard, 2010-2014 Edition

For Additional Information Contact:

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Appendix III



Audit Matrix

NSF-ISR SFI 2010-2014 MATRIX

Findings and Instructions:

C	Conformance
Exr	Exceeds the Requirements
Maj	Major Non-conformance
Min	Minor Non-conformance
OFI	Opportunity for Improvement (can also be in Conformance)
NA	Not Applicable
Likely Gap *	Likely Gap Against 2010-2014 SFIS (used for scoping or baseline audits)*
Likely Conf. *	Likely Conformance With 2010-2014 SFIS (used for scoping or baseline audits)*
Auditor	Optional; may be used for audit planning.
12, 13	Date Codes, for example: 12= July 2012; 13=Aug. 2013
Other	Words in <i>italics</i> are defined in the standard.

Yes No N.A. NSF mark (logo) is being used correctly.

Audit Notes:

Objective 1. Forest Management Planning

To broaden the implementation of *sustainable forestry* by ensuring *long-term forest productivity* and yield based on the use of the *best scientific information* available.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>1.1</i>	Program Participants shall ensure that forest management plans include long-term harvest levels that are sustainable and consistent with appropriate growth-and-yield models.	MF	12						
<i>Notes</i>	Management plans reviewed include long-term harvest levels that appear sustainable and are based on appropriate growth and yield models. Harvest levels have been considerably lower than growth.								

	2010-2014 Requirement (Performance Measures bold)	Audit or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>1.1.1</i>	Forest management planning at a level appropriate to the size and scale of the operation, including: a. a long-term resources analysis; b. a periodic or ongoing forest inventory; c. a land classification system; d. soils inventory and maps, where available; e. access to growth-and-yield modeling capabilities; f. up-to-date maps or a geographic information system; g. recommended sustainable harvest levels for areas available for harvest; and h. a review of non-timber issues (e.g. recreation, tourism, pilot projects and economic incentive programs to promote water protection, carbon storage, bioenergy feedstock production, or biological diversity conservation, or to address climate-induced ecosystem change).	MF	12						

<i>Notes</i>	<p>Reviewed updates to the management plans for the two forests in the eastern region: Chesapeake Forest Lands 67,779 acres, July 1, 2007 Revision #5, February 14, 2012; Pocomoke State Forest 16,922 acres December 21, 2010 Revised 03.09.12.</p> <p>The Maryland DNR Forest Service has completed the management plans for the forests in the western region:</p> <ul style="list-style-type: none"> • Green Ridge State Forest 47,560 acres, February 16, 2012 • Potomac-Garrett State Forest 17,931 acres, February 14, 2012 • Savage River State Forest 54,325 acres, Final Draft Plan <p>Items a through h are found in one or more of the following:</p> <ul style="list-style-type: none"> • State Forest Management Plans: there are five, three in draft versions to be finalized within the next few months • Annual Work Plans for each forest describe projects to be completed over the next 12 months. • The GIS contains layers with soils, topography, stands, wetlands, and other features. • For smaller or short-notice projects there is a “project review process 						12		
1.1.2	Documentation of annual harvest trends in relation to the sustainable forest management plan in a manner appropriate to document past and future activities.	MF	12						
<i>Notes</i>	<p>2012: There is an opportunity to improve in the western region by providing descriptions of annual harvest trends in relation to the sustainable forest management plan in a publicly available manner, and to include the PSF in the eastern region’s Silvicultural Summary.</p> <p>The Maryland DNR Forest Service maintains a very accurate database of planned and completed activities. Confirmed “Silvicultural Activity Summary By Annual Work Plan 043012” covering the Chesapeake Forest. Timber Operation Order Operation Order 2011-601 requires for each forest an “End of Fiscal Year Summary” including: “... (a) (a) Proposed timber sale status, (b) Area description, (c) Silvicultural description, (d) Acres harvested, (e) Board foot volume harvested, (f) Amount of bid, and (g) Top bidder for each sale.”</p> <p>East: Annual Work Plans are model of clarity, providing superb transparency of actions for the public’s benefit. An activity summary by Annual Work Plan is available on-line. It clearly shows the actual accomplishments each year (2001-2011) compared to the recommended treatments contained in the “annual work plans”. The on-line report was updated following the 2012 audit.</p> <p>West: Savage River State Forest and Green Ridge State Forest plans contain a chart showing actual harvests and growth levels. Potomac Garrett State Forest plan does not show growth vs. harvest.</p>								
	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
1.1.3	A forest inventory system and a method to calculate growth and yield.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								
	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>

1.1.4	Periodic updates of forest inventory and recalculation of planned harvests to account for changes in growth due to productivity increases or decreases (e.g. improved data, long-term drought, fertilization, climate change, forest land ownership changes, etc.).								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
1.1.5	Documentation of forest practices (e.g., planting, fertilization, and thinning) consistent with assumptions in harvest plans.	MF	12						
<i>Notes</i>	<p>The Maryland DNR Forest Service maintains a very accurate database of planned and completed activities.</p> <p>Annual Work Plans (AWP) available online, provide a detailed description of forest practices approved. These AWP's are model of clarity, providing superb transparency of actions for the public's benefit. Forest practices accomplished are documented in the records but are not listed in the AWP's. The Maryland DNR Forest Service maintains a very accurate database of planned and completed activities. Delays in completing some proposed treatments do not appear to be inconsistent with harvest plan assumptions.</p>								

Objective 2. Forest Productivity.

To ensure *long-term forest productivity*, carbon storage, and *conservation* of forest resources through prompt *reforestation*, *soil conservation*, *afforestation* and other measures.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1	Program Participants shall promptly reforest after final harvest.	MF	12						
<i>Notes</i>	Prompt reforestation is specified in management plans and in AWP's. Foresters plan all treatments and consider regeneration during this planning. Regeneration surveys are conducted pre-harvest (for shelterwood prescriptions) and post-harvest as needed. Prompt regeneration appears to be the norm, based on field observations.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.1	Designation of all harvest areas for either natural regeneration or by planting.	MF	12						
<i>Notes</i>	East: this designation is found in the AWP's; recently most regeneration is natural. West: planting is rarely done.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.2	Reforestation, unless delayed for site-specific environmental or forest health considerations or legal requirements, through planting within two years or two planting seasons, or by planned natural regeneration methods within five years.	MF	12						
<i>Notes</i>	Regeneration surveys are conducted following regeneration treatments (within one or two years for loblolly on the CSF; after 3-5 years for hardwood stands in the west). When regeneration is not sufficient planting or other measures are employed.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.3	Clear criteria to judge adequate regeneration and appropriate actions to correct understocked areas and achieve acceptable species composition and stocking rates for both planting and natural regeneration.	MF	12						

Notes	The criteria for judging adequate stocking are: East: MFS Policy & Procedure Manual, Appendix K.; West: Regeneration adequacy is assessed per Silvah Protocols.								
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.4	Minimized plantings of exotic tree species, and research documentation that exotic tree species, planted operationally, pose minimal risk.	MF	12						
Notes	No exotic tree species are planted.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.5	Protection of desirable or planned advanced natural regeneration during harvest.	MF	12						
Notes	Field observations confirm that advanced natural regeneration is protected during harvest.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.6	Planting programs that consider potential ecological impacts of a different species or species mix from that which was harvested.	MF	12						
Notes	Planting is not commonly done. AWP and ID Team processes ensure that any treatment designed to change species composition is designed and reviewed by a team with expertise in forestry, ecology, botany, and other skills as needed.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.1.7	Afforestation programs that consider potential ecological impacts of the selection and planting of tree species in non-forested landscapes.		NA						
Notes	No afforestation is being conducted.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.2	Program Participants shall minimize chemical use required to achieve management objectives while protecting employees, neighbors, the public and the environment, including wildlife and aquatic habitats.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.2.1	Minimized chemical use required to achieve management objectives.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.2.2	Use of least-toxic and narrowest-spectrum pesticides necessary to achieve management objectives.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.2.3	Use of pesticides registered for the intended use and applied in accordance with label requirements.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
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2.2.4	Use of integrated pest management where feasible.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.2.5	Supervision of forest chemical applications by state- or provincial-trained or certified applicators.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.2.6	Use of management practices appropriate to the situation, for example: <ul style="list-style-type: none"> a. notification of adjoining landowners or nearby residents concerning applications and chemicals used; b. appropriate multilingual signs or oral warnings; c. control of public road access during and immediately after applications; d. designation of streamside and other needed buffer strips; e. use of positive shutoff and minimal-drift spray valves; f. aerial application of forest chemicals parallel to buffer zones to minimize drift; g. monitoring of water quality or safeguards to ensure proper equipment use and protection of streams, lakes and other water bodies; h. appropriate storage of chemicals; i. filing of required state or provincial reports; and/or j. use of methods to ensure protection of threatened and endangered species. 								
Notes	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3	Program Participants shall implement forest management practices to protect and maintain forest and soil productivity.	MF	12						

<i>Notes</i>	<p>Closed 2011 Minor CAR. Roads remain a concern, were not thoroughly reviewed during the 2012 audit, and thus will be the primary focus area of the 2013 audit (progress in reducing the road maintenance backlog will be assessed). Up to \$2 million in special (one-time) funding may be allocated to the Maryland DNR Forest Service for road maintenance over the next two years.</p> <p>Plans are in place and funding has been identified to address the backlog of road/trail maintenance needs, for example:</p> <ul style="list-style-type: none"> • \$300,000-\$450,000 funding is anticipated for planning/design and some initial work in FY13 (July 1 2012- June 30 2013); then another \$1.7 million for FY14. • A “Road Maintenance Policy” has been adopted (Forest Roads Management for Forest Operations on Maryland State Forests, Jan. 2012). This policy states clear standards for road classification, maintenance, and evaluation/monitoring, aka “road inventory”. • The agency has completed its inventory on about half of its roads, and expects to complete entire inventory by fall of 2012. The team auditor confirmed the road inventory in the Savage River State Forest. Managers are starting to use the inventory to set priorities. For example the MFS is working towards the first year’s batch of requests approvals from Maryland Department of the Environment for culvert replacements, working from the inventory information currently available. • In 2011 extensive environmental impacts associated with recreational use of forest roads were observed on the Burkholder Road ATV Trail (Potomac Garrett State Forest), the Poplar Lick Trail (Savage River State Forest), and the East Valley ORV Trail (Green Ridge State Forest). These problematic ORV trails have been closed. The Chandler Tract ORV trail on Pocomoke State Forest was subject of a finding in 2009, was temporarily closed, and now has officially been closed to ORV use and is only now to be used as a trail for hiking. Seasonal Maryland DNR Forest Service staff worked to restore and repair the trail which has now mostly seeded in with grasses. Sites continue to be evaluated for possible ORV opportunities for replacement; model in place to assess all DNR lands <p>Also see indicators.</p> <p>Closed 2011 Minor Non-conformance: Some trails and permanent roads in the western forests have drainage provisions (crowns, road surfaces, cross drainage) which are not maintained adequately, resulting erosion that is avoidable. ORV trails in particular are causing off-trail resource damage including sedimentation into pristine streams and damage to sensitive wetlands soils; much of this ORV-related damage involves unauthorized uses, but the increased levels of trail use appear to be contributing to the problem. Note: Following the audit selected ORV trails on one eastern and two western state forests were permanently closed.</p> <p>Portion of 2011 Notes: “Funding for road maintenance has declined over time, and managers have had to be creative in finding resources for routine maintenance or periodic road upgrades/reconstruction...” end of 2011 Notes</p>
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	2010-2014 Requirement	Audit -or	C	EXR	Maj	Min	OFI	Likely Gap *	Likely Conf. *
<i>2.3.1</i>	Use of soils maps where available.	MF	12						
<i>Notes</i>	Maps showing soils are used in sale design and planning, as evidenced by maps associated with treatment documentation reviewed during the audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3.2	Process to identify soils vulnerable to compaction, and use of appropriate methods to avoid excessive soil disturbance.	MF, AMK	12						
Notes	Conformance was clear; managers go to great lengths to identify sensitive areas and avoid disturbing them. Foresters in the western region are vigorously enforcing the existing rutting policy (see 2.3.6 below) in ways that ensure very little rutting, despite the loopholes in the policy that the audit team identified during this audit (see 2.3.6 below).								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3.3	Use of erosion control measures to <i>minimize</i> the loss of soil and site <i>productivity</i> .	MF, AMK	12						
Notes	Field observations confirm the widespread use of erosion control measures. Water bars, placement of logging slash to stabilize disturbed soils or as a protective mat for heavily used skid trails, and careful planning to avoid impacts were the chief measures employed, and these have generally been very effective in controlling erosion. No erosion issues were observed during the 2012 field audits of 2011-2012 harvest sites.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3.4	Post-harvest conditions conducive to maintaining site productivity (e.g. limited rutting, retained down woody debris, minimized skid trails).	MF, AMK	12						
Notes	Post-harvest conditions on all current harvest sites observed in 2012 were conducive to maintaining site productivity, with limited rutting, retained down woody debris, and minimized skid trails as appropriate. In 2011 there was an opportunity to improve in avoiding excessive soil disturbance including rutting within the western forests, but this issue appears to have been addressed. The team only observed a few harvests completed since the 2011 audit, so this issue should be reexamined in future audits.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3.5	Retention of vigorous trees during partial harvesting, consistent with scientific silvicultural standards for the area.	MF, AMK	12						
Notes	Field observations confirm that most partial harvests target low vigor trees for removal. While there were exceptions in the past (in some western forests on occasion), the current goals and methods show a strong orientation towards implementation of sound silviculture. SILVAH Oak is being implemented for all hardwood harvests in the western mountains. Partial harvests in the eastern forests continue to be superb.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3.6	Criteria that address harvesting and site preparation to protect soil productivity.	MF, AMK			12				
<i>Notes</i>	<p>Major Non-conformance: Maryland DNR Forest Service has developed criteria defining acceptable levels of rutting during harvests, but these measures do not assure protection of soil productivity caused by rutting that is independent of erosion, a documented issue with forest soils.</p> <p>The definition of rutting adopted for both regions in the revised rutting criteria excludes any rut that is not associated with erosion and sedimentation. This is not consistent with the scientific knowledge that shows that rutting and/or compaction can degrade site productivity even in the absence of erosion.</p> <p>The 2011 Minor Non-conformance stated: “The western forests do not have criteria defining acceptable levels of rutting during harvests.”</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.3.7	Road construction and skidding layout to minimize impacts to soil productivity and water quality.	MF, AMK	12						
<i>Notes</i>	Roads are generally constructed and skid roads and trails designed to minimize impacts. Past issues with the maintenance of permanent roads to ensure that drainage structures are maintained so as to function properly are expected to be addressed with increased funding for planning and implementation of infrastructure maintenance and upgrades.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.4	Program Participants shall manage so as to protect forests from damaging agents, such as environmentally or economically undesirable wildfire, pests, diseases and invasive exotic plants and animals, to maintain and improve long-term forest health, productivity and economic viability.	MF	12						
<i>Notes</i>	See indicators below.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.4.1	Program to protect forests from damaging agents.	MF	12						

<i>Notes</i>	Confirmed continuing close attention by field foresters to forest health issues. The program has several facts including forest inventory, management planning, and regular silviculture treatment, as well as insect and disease reconnaissance through MDA and USFS programs. One example in the east involved detection of a spot infestation of the southern pine beetle by a field forester, leading to a revision from a thinning prescription to a sanitation clearcut which was implemented quickly and eliminated the infestation.
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.4.2	Management to promote healthy and productive forest conditions to minimize susceptibility to damaging agents.	MF, AMK	12				12		
<i>Notes</i>	<p>2012: There is an opportunity to improve implementation of the management plans in the western region regarding forest health and the treatment of overstocked stands.</p> <p>East: Pine stands are kept healthy through a pro-active thinning program which is effectively maintaining proper stocking levels and allowing trees to grow vigorously. One pine beetle infestation was reported; this was addressed quickly.</p> <p>West: Over the past few years foresters have focused on salvage of trees damaged by the 2002 ice storm and subsequent droughts, or by gypsy moth defoliation, and most recently the hail-storm of 2012. The longer-term silviculture program has been a lower priority, and some stands, particularly conifers, are overstocked. Recently efforts to implement routine management have declined; harvest levels at Savage River State Forest in 2010 were about 1/8 of growth. The audit team observed many overstocked hardwood stands and some overstocked conifer plantations. While no forest health impacts were observed, the team noted that the management plan emphasizes maintaining proper stocking levels as the pest management strategy.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.4.3	Participation in, and support of, fire and pest prevention and control programs.	MF	12						
<i>Notes</i>	Maryland Forest Service is the lead forest agency; many state forest workers are trained as wild fire fighters.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.5	Program Participants that deploy improved planting stock, including varietal seedlings, shall use sound scientific methods.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
2.5.1	Program for appropriate research, testing, evaluation and deployment of improved planting stock, including varietal seedlings.								
	Not reviewed during 2012 Surveillance Audit.								

Objective 3. Protection and Maintenance of Water Resources

To protect water quality in rivers, streams, lakes, and other water bodies.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.1	Program Participants shall meet or exceed all applicable federal, provincial, state and local water quality laws, and meet or exceed best management practices developed under Canadian or U.S. Environmental Protection Agency–approved water quality programs.								
<i>Notes</i>	See indicators below. Laws and BMPs are respected.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.1.1	Program to implement state or provincial best management practices during all phases of management activities.								
<i>Notes</i>	<p>2012: Road maintenance issues not reviewed in 2012, but should be in 2013.</p> <p>From the 2011 report: “There is an opportunity to improve the implementation of the full range of issues that are normally covered by BMPs, particularly those related to road maintenance.</p> <p>The eastern forests have a comprehensive program for implementing BMPs in all phases of management activities. The western forests are steep and are subject to extensive recreational use of roads and trails, with some locations having quite intensive use by ORVs and by AWD vehicles as well as by motorcycles. Foresters and managers in the west are hampered by lack of road budgets or provisions for routine maintenance.</p> <p>Road maintenance issues are not included in the Maryland BMPs.”</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.1.2	Contract provisions that specify conformance to best management practices.	MF	12						
<i>Notes</i>	Acronym “BMP” not found in contracts, instead “Erosion and Sedimentation Control Plan” was referenced in timber sale/harvesting contracts in all forests audited, and this links to the BMPs. BMP inspectors are on the ID Teams.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>

3.1.3	Plans that address wet-weather events (e.g. forest inventory systems, wet-weather tracts, definitions of acceptable operating conditions).								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.1.4	Monitoring of overall best management practices implementation.	MF	12						
<i>Notes</i>	Tract Inspection Forms are used to document BMP inspections conducted during and at the completion of timber harvests.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.2	Program Participants shall have or develop, implement and document riparian protection measures based on soil type, terrain, vegetation, ecological function, harvesting system and other applicable factors.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.2.1	Program addressing management and protection of rivers, streams, lakes, and other water bodies and riparian zones.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.2.2	Mapping of rivers, streams, lakes, and other water bodies as specified in state or provincial best management practices and, where appropriate, identification on the ground.	MF, AMK	12						

Notes	Rivers, streams, lakes, and other water bodies as specified in state or provincial best management practices are mapped and are marked in the field (using paint or flagging) prior to conducting harvesting or other management practices.
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.2.3	Implementation of plans to manage or protect rivers, streams, lakes, and other water bodies.	MF, AMK	12						
Notes	Confirmed by field observations.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.2.4	Identification and protection of non-forested wetlands, including bogs, fens and marshes, and vernal pools of ecological significance.	MF, AMK	12						
Notes	East: During harvest planning, and when found during harvests, foresters identify potential vernal pools and then refer them to experts to determine whether they are functional or legally significant. Once they are classified they are protected by applying appropriate buffers. West: Confirmed the awareness of the importance of vernal pools by field foresters.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
3.2.5	Where regulations or best management practices do not currently exist to protect riparian areas, use of experts to identify appropriate protection measures.	MF	12						
Notes	Note that BMPs do not cover maintenance of permanent forest roads. Road work is planned and overseen by experts.								

Objective 4. Conservation of Biological Diversity including Forests with Exceptional Conservation Value.

To manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand- and landscape-level measures that promote a diversity of types of habitat and successional stages, and conservation of forest plants and animals, including aquatic species.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1	Program Participants shall have programs to promote biological diversity at stand- and landscape-levels.	MF, AMK	12						
<i>Notes</i>	See indicators below.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.1	Program to promote the conservation of native biological diversity, including species, wildlife habitats and ecological community types.	MF, AMK	12						
<i>Notes</i>	<p>All five forests are managed to conserve and protect biodiversity, which is one of the foremost objectives in the ten year management plans, as well as a clear driver of many planning and operational procedures.</p> <p>The core element of the biodiversity conservation program is the use of an Interdisciplinary Team (IDT) process for review and approval of plans (forest-wide and project level). The IDT includes land managers and a wide range of specialists. Working relationships among the key participants on the IDTs appear to be quite effective and continue to improve.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.2	Program to protect threatened and endangered species.	MF, AMK	12						
<i>Notes</i>	<p>Rare, threatened, and endangered species are recorded in the heritage database. Heritage biologists are involved in planning for all harvests, treatments, or land-altering activities. Monitoring is done following treatments which could affect RTE species or their habitats, which special efforts following “restoration” treatments.</p> <p>Ginseng issue was discussed; the organization is working with other groups to learn more about appropriate harvest levels for Ginseng</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.3	Program to locate and protect known sites associated with viable occurrences of critically imperiled and imperiled species and communities also known as Forests with Exceptional Conservation Value. Plans for protection may be developed independently or collaboratively, and may include Program Participant management, cooperation with other stakeholders, or use of easements, conservation land sales, exchanges, or other conservation strategies.	MF, AMK		12					
<i>Notes</i>	<p>The program exceeds the requirements for protections of critically imperiled and imperiled species and communities, also known as Forests with Exceptional Conservation Values.</p> <p>FECVs are generally covered within the broader HCVF approach. For example Delmarva Fox Squirrels are favored in the eastern forest by protections built into HCVF zones where DFS management is the driver. The western forests had no G1 or G2 species.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.4	Development and implementation of criteria, as guided by regionally appropriate best scientific information, to retain stand-level wildlife habitat elements such as snags, stumps, mast trees, down woody debris, den trees and nest trees.	MF	12						
<i>Notes</i>	<p>Closed 2011 Minor Non-conformance based on the development of a comprehensive policy for stand-level retention “Forest Stand Retention.</p> <p>For Forest Operations on Maryland State Forests, November 2011” and evidence of implementation in the field. On the eastern forests retention associated with clearcuts, and on the western forests retention in variable retention harvests were consistent with the policy and were clearly being implemented thoughtfully (all five jobs in western region and all of the final harvests reviewed in the east).</p> <p>Reviewed an example of the contract “Green Ridge State Forest - Timber Sale GR-04-12” executed January 2012 to ensure that it does not specify removal down to a 4-inch tip (some previous contracts did).</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.5	Program for assessment, conducted either individually or collaboratively, of forest cover types, age or size classes, and habitats at the individual ownership level and, where credible data are available, across the landscape, and take into account findings in planning and management activities.	MF	12						

Notes	Maryland’s Forest Service works closely with ID Teams, Advisory Committees and other Maryland Forest Service personnel who work on private forest lands. This helps develop an understanding of state forest land resources compared to those of private lands. For example, old growth forests are largely found on state lands rather than private lands, wilderness (Wildlands) is designated solely on state lands. In the eastern region the close relationships with TNC have also helped ensure landscape scale consideration and some cross-border management cooperation as well. Considerable progress has been made using the “LANDFIRE” program to develop a reliable database that provides estimates of the acres of existing vegetation types across this ownership and other state lands in the eastern and western regions. This analysis is helping identify possible “gaps” in the network of protected vegetation types (aka “Representative Sample Areas” under FSC terminology).
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.6	Support of and participation in plans or programs for the conservation of old-growth forests in the region of ownership.	MF, AMK		12					
Notes	<p>Maryland DNR is a leader in the designation and protection of old-growth and potential old-growth forests.</p> <p>Old Growth Ecosystem Management Areas (OGEMAs) and Potential Old Growth Management Area (POGMA) designations are extensive for the western forests, and other land prioritizations in the eastern forests supplement old growth management designations within the eastern forests as well.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.7	Participation in programs and demonstration of activities as appropriate to limit the introduction, impact and spread of invasive exotic plants and animals that directly threaten or are likely to threaten native plant and animal communities.	MF, AMK	12						
Notes	<p>Interviewed Anne Hairston-Strang. Have completed a study based on MBSS data from statewide inventories of riparian zones, and reviewed forest regeneration as impacted by invasive plants.</p> <p>“Grant Narrative for FY2011 NA S&PF Competitive Allocation Request for Proposals, MD DNR Forest Service, FY 2011” was funded, and includes a study to set priorities and funding to include site-level treatments.</p> <p>Starting to do trials of equipment washing.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.1.8	Program to incorporate the role of prescribed or natural fire where appropriate.	MF	12						

Notes	<p>DNR Prescribed Fire Op Order, interviews, and other documentation confirmed that there is an operating program for the use of fire, although most specialists and managers would like to use the tool even more frequently.</p> <p>Example: Nazereth Church Tract 6, Stand 8, PSF – Prescribed Burn Plan # 2012-4016 in an area with combinations of G3 community (sand ridge), ESA Zone 1 and DFS Future Core. Completed understory burn 3-30-12, which proceeded according to the burn plan so that the written burn objectives were met. Goal was to remove 2-3 inches of a much thicker litter layer to promote natural regeneration of pond pine so that the stand can be regenerated. (See site notes at the end of the checklists for more information.)</p>
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.2	Program Participants shall apply knowledge gained through research, science, technology and field experience to manage wildlife habitat and contribute to the conservation of biological diversity.	MF, AMK	12						
Notes	See indicators below.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
4.2.1	Collection of information on Forests with Exceptional Conservation Value and other biodiversity-related data through forest inventory processes, mapping or participation in external programs, such as NatureServe, state or provincial heritage programs, or other credible systems. Such participation may include providing non-proprietary scientific information, time and assistance by staff, or in-kind or direct financial support.	MF, AMK	12						

Notes	<p>Maryland Natural Heritage Program maintains a well-populated database of RT&E species. Foresters and specialists seek special sites of all types, and provide information to the Maryland Natural Heritage Program.</p> <p>Managers and Natural Heritage staff cooperate through attendance on the ID team and as a result sites have been identified and mapped and are managed for a variety of exceptional values. Most sites are included in the HCVF or ESA data layers. For example, the Green Ridge State Forest draft management plan includes prescriptions for monitoring sites and restrictions on management activities within these mapped critical habitats for state listed or uncommon species, shale barrens communities, old growth and potential old growth, vernal pools and unique open habitats. Similarly, the Potomac Garrett State Forest draft management plan describes more than 30 ecologically significant areas and other state protected lands, measures to protect the areas as well as restrictions to management including for example restricted use of pesticides. Land management staff provides time and expertise when prescribed fire or non-native invasive plant control is required to maintain or enhance an uncommon community type.</p> <p>DNR Foresters in the East have a designated form to report observations of RT&E species to Maryland Heritage. Intensive SILVAH inventory will cover all forests- even those that have been reserved from active timber management as ESA's or HCVF's. As described in the Potomac Garrett State Forest, Savage River State Forest, and Green Ridge State Forest, sample points for sensitive resources will be selected using random sampling or, when necessary, stratified random sampling. Cluster sampling may be used for rare plants. This monitoring may be ongoing or of limited duration.</p>
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	2010-2014 Requirement	Audit -or	C	EXR	Maj	Min	OFI	Likely Gap *	Likely Conf. *
4.2.2	A methodology to incorporate research results and field applications of biodiversity and ecosystem research into forest management decisions.	MF, AMK	12						
Notes	<p>Maryland Forest Service Policy & Procedure Manuals and all five management plans refer to the process of extensive review of all projects by the IDTs. These teams comprise the primary means of ensuring that current scientific knowledge is incorporated into treatments.</p> <p>Timber Operation Order Operation Order 2011-601 describes the composition of the IDTs:</p> <p>(i) Unit Director or designee responsible for the lands involved (ii) Land Unit Manager (iii) Fisheries (iv) Heritage (v) Wildlife (vi) Parks (vii) Land Acquisition and Planning (viii) Environmental Specialist (ix) Maryland Department of the Environment (invited) (x) Natural Resources Police (invited) (xi) Maryland Historical Trust (invited)</p> <p>Specialists involved in the audit (forest ecologist, botanist, fisheries biologist) demonstrated command of the scientific knowledge required to protect and manage biodiversity. Over time the monitoring described under the preceding indicator will help add to the practical knowledge base.</p>								

Objective 5. Management of Visual Quality and Recreational Benefits.

To manage the visual impact of forest operations and provide recreational opportunities for the public.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.1	Program Participants shall manage the impact of harvesting on visual quality.	MF, AMK	12						
<i>Notes</i>	Policy and procedures manual has a section on aesthetics. See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.1.1	Program to address visual quality management.	MF, AMK	12						
<i>Notes</i>	Planning for all harvests includes consideration of aesthetics; foresters are responsible, supported by ID Teams. Variable retention technique considers aesthetics when deciding on location of clumped retention. Confirmed: MFS Policy & Procedure Manual section on “Visual Quality: “In laying out forest harvest and thinning operations, particular care will be given to the need for visual quality protection. This will include location and operations of landings, decks, roads, and other areas of concentrated activity. Visual buffers will be maintained along areas where required. All forest harvest plans are mapped on aerial photograph backgrounds. The responsible licensed forester decides the need for visual buffers and their extent is illustrated on the harvest plan maps included in the permit applications. ‘Forestry Aesthetics Guide: Image and Opportunity’ is the basic reference publication used by CFL & Pocomoke State Forest staff. It is available to all field foresters for guidance.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.1.2	Incorporation of aesthetic considerations in harvesting, road, landing design and management, and other management activities where visual impacts are a concern.	MF, AMK	12						
<i>Notes</i>	Planning for all harvests includes careful consideration of aesthetics. Variable retention technique considers aesthetics when deciding on location of clumped retention. Green tree retention in clearcut harvests can help with visual management, and is expected to be more commonly used as the new policy is implemented. Many field sites reviewed in 2012 had visual buffers and other provisions to manage visual impacts.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.2	Program Participants shall manage the size, shape and placement of clearcut harvests.								

<i>Notes</i>	Some examples of careful placement of clearcut harvests were observed (WR24 Johnson & Johnson, CF– Clearcut, 1st Thinning and Seed Tree Harvest).								
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.2.1	Average size of clearcut harvest areas does not exceed 120 acres (50 hectares), except when necessary to meet regulatory requirements or to respond to forest health emergencies or other natural catastrophes.	MF	12						
<i>Notes</i>	The average size of clearcuts reported to SFI for 2011 was 25 acres.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.2.2	Documentation through internal records of clearcut size and the process for calculating average size.								
<i>Notes</i>	GIS and timber harvest records are superb.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.3	Program Participants shall adopt a green-up requirement or alternative methods that provide for visual quality.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.3.1	Program implementing the green-up requirement or alternative methods.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.3.2	Harvest area tracking system to demonstrate conformance with the green-up requirement or alternative methods.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.3.3	Trees in clearcut harvest areas are at least 3 years old or 5 feet (1.5 meters) high at the desired level of stocking before adjacent areas are clearcut, or as appropriate to address operational and economic considerations, alternative methods to reach the performance measure are utilized by the Program Participant.	MF	12						
<i>Notes</i>	No violations of this indicator were observed during the 2012 audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.4	Program Participants shall support and promote recreational opportunities for the public.	MF		12					
<i>Notes</i>	An exceptional range of high-quality recreational opportunities are provided on the Maryland State Forests. See indicator.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
5.4.1	Provide recreational opportunities for the public, where consistent with forest management objectives.	MF		12					
<i>Notes</i>	Extensive recreation programs including hunt club leases on half of the CSF and public hunting opportunities on all remaining lands, various recreational trails, campgrounds, boat launching areas, and other.								

Objective 6. Protection of Special Sites.

To manage lands that are ecologically, geologically or culturally important in a manner that takes into account their unique qualities.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
6.1	Program Participants shall identify special sites and manage them in a manner appropriate for their unique features.	MF		12					
<i>Notes</i>	<p>The program for the identification and protection of special sites is exemplary.</p> <p>The High Conservation Value Forest (HCVF) is the primary designation for conserving special sites. HCVF includes: Ecologically Significant Areas, old growth, wetlands of special state concern. Significant percentages of each state forest have been designated as HCVF including Potomac Garrett State Forest = 44%; SRSF= 32%; Green Ridge State Forest 39%. Also see indicators.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
6.1.1	Use of information such as existing natural heritage data, expert advice or stakeholder consultation in identifying or selecting special sites for protection.								
<i>Notes</i>	<p>The program for the identification and protection of special sites is exemplary.</p> <p>Information on special sites is primary from internal (MDNR) sources. Heritage data and information from specialists outside of the department supplement this information. The Maryland Forest Service has demonstrated exceptional efforts to identify special sites and to select special areas (representative sample areas or RSAs for example) for protection and for management and/or restoration as needed. An example is the Wango Pines Restoration project on the Chesapeake Forest where Heritage and experts suggested this 134-acre restoration project including plans for prescribed fire to simulate a crown fire in this area that has a 4-8 year fire regime. Within the Green Ridge State Forest management plan, critical habitats have been mapped for state listed or uncommon species, shale barrens communities, old growth and potential old growth, vernal pools and unique open habitats. Similarly, the Potomac Garrett State Forest management plan describes more than 30 ecologically significant areas and other state protected lands.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
6.1.2	Appropriate mapping, cataloging and management of identified special sites.								
<i>Notes</i>									

Objective 7. Efficient Use of Forest Resources.

To promote the efficient use of forest resources.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>7.1</i>	Program Participants shall employ appropriate forest harvesting technology and in-woods manufacturing processes and practices to minimize waste and ensure efficient utilization of harvested trees, where consistent with other SFI Standard objectives.	MF	12						
<i>Notes</i>	Timber Operation Order Operation Order 2011-601 specifies timber sale procedures. Foresters involved in sale supervision have considerable experience with forest harvesting, merchandizing, and utilization. Markets have been challenging, with many mills struggling for survival and unable to make use of smaller diameter material.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>7.1.1</i>	Program or monitoring system to ensure efficient utilization, which may include provisions to ensure: <ul style="list-style-type: none"> a. management of harvest residue (e.g. slash, limbs, tops) considers economic, social and environmental factors (e.g. organic and nutrient value to future forests) and other utilization needs; b. training or incentives to encourage loggers to enhance utilization; c. cooperation with mill managers for better utilization of species and low-grade material; d. exploration of markets for underutilized species and low-grade wood and alternative markets (e.g. bioenergy markets); or e. periodic inspections and reports noting utilization and product separation. 	MF	12						
<i>Notes</i>	Field observations confirm that harvests in all forests have a reasonable to very good degree of utilization. Difficult markets cause some sales to have considerable logging slash, but this material does not hamper soil productivity. All loggers are trained. The Maryland Forest Service is exploring biomass markets. Foresters monitor all timber harvests; utilization was included on the inspection forms.								

Objectives 8-13 are N.A.

Objective 14. Legal and Regulatory Compliance.

Compliance with applicable federal, provincial, state and local laws and regulations.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>14.1</i>	Program Participants shall take appropriate steps to comply with applicable federal, provincial, state and local forestry and related social and environmental laws and regulations.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>14.1.1</i>	Access to relevant laws and regulations in appropriate locations.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>14.1.2</i>	System to achieve compliance with applicable federal, provincial, state or local laws and regulations.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>14.1.3</i>	Demonstration of commitment to legal compliance through available regulatory action information.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
14.2	Program Participants shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state and local levels in the country in which the Program Participant operates.								
Notes	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
14.2.1	Written policy demonstrating commitment to comply with social laws, such as those covering civil rights, equal employment opportunities, anti-discrimination and anti-harassment measures, workers' compensation, indigenous peoples' rights, workers' and communities' right to know, prevailing wages, workers' right to organize, and occupational health and safety.								
Notes	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
14.2.2	Forestry enterprises will respect the rights of workers and labor representatives in a manner that encompasses the intent of the International Labor Organization (ILO) core conventions.								
Notes	There were no ILO-related complaints?								

Objective 15. Forestry Research, Science, and Technology.

To support forestry research, science, and technology, upon which sustainable forest management decisions are based.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>15.1</i>	Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners provide in-kind support or funding for forest research to improve forest health, productivity, and sustainable management of forest resources, and the environmental benefits and performance of forest products.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>15.1.1</i>	Financial or in-kind support of research to address questions of relevance in the region of operations. The research shall include some of the following issues: a. forest health, productivity, and ecosystem functions; b. chemical efficiency, use rate and integrated pest management; c. water quality and/or effectiveness of best management practices including effectiveness of water quality and best management practices for protecting the quality, diversity and distributions of fish and wildlife habitats; d. wildlife management at stand- and landscape-levels; e. conservation of biological diversity; f. ecological impacts of bioenergy feedstock removals on productivity, wildlife habitat, water quality and other ecosystem functions; g. climate change research for both adaptation and mitigation; h. social issues; i. forest operations efficiencies and economics; j. energy efficiency; k. life cycle assessment; l. avoidance of illegal logging; and m. avoidance of controversial sources.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
15.1.2	Research on genetically engineered trees via forest tree biotechnology shall adhere to all applicable federal, state, and provincial regulations and international protocols.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
15.2	Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners develop or use state, provincial or regional analyses in support of their sustainable forestry programs.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
15.2.1	Participation, individually and/or through cooperative efforts involving SFI Implementation Committees and/or associations at the national, state, provincial or regional level, in the development or use of some of the following: a. regeneration assessments; b. growth and drain assessments; c. best management practices implementation and conformance; d. biodiversity conservation information for family forest owners; and e. social, cultural or economic benefit assessments.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>

15.3	Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners broaden the awareness of climate change impacts on forests, wildlife and biological diversity.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
15.3.1	Where available, monitor information generated from regional climate models on long-term forest health, productivity and economic viability.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
15.3.2	Program Participants are knowledgeable about climate change impacts on wildlife, wildlife habitats and conservation of biological diversity through international, national, regional or local programs.								
<i>Notes</i>	Not reviewed during 2012 Surveillance Audit.								

Objective 16. Training and Education.

To improve the implementation of sustainable forestry practices through appropriate training and education programs.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>16.1</i>	Program Participants shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the SFI 2010-2014 Standard.	MF	2012						
<i>Notes</i>	See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>16.1.1</i>	Written statement of commitment to the SFI 2010-2014 Standard communicated throughout the organization, particularly to facility and woodland managers, fiber sourcing staff and field foresters.	MF	2012						
<i>Notes</i>	Confirmed the Maryland governor’s statement of commitment to SFI (and FSC) for all of Maryland’s state forests.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>16.1.2</i>	Assignment and understanding of roles and responsibilities for achieving SFI 2010-2014 Standard objectives.	MF	2012						
<i>Notes</i>	Roles and responsibilities are documented in the two forest policy documents (one for each region). All staff involved in the audit demonstrated a clear understanding of their roles.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>16.1.3</i>	Staff education and training sufficient to their roles and responsibilities.	MF, AMK	12						

Notes	<p>Alex Clark, GIS Forester, Maryland Forest Service: Maryland State Board of Foresters License (expires 10-21-12); pesticide applicators license; SAF meetings. Skip Jones and Stacey Esham are both Maryland Licensed foresters, with continuing education; Skip Jones has SAF Certified Forester credential; other training as needed; he attends SAF Meetings and ACF meetings.</p> <p>Lance Carroll, Natural Resource Tech II: Courses:, Woodland Fire Chain Saws, Basic Wildland Fire Fighter; started 2009 doing CFI; training on driving ... CDL. Lance also knows to have PPE and what PPE is required for chain saw use</p> <p>Maryland DNR foresters provided significant support and spoke at two Allegheny Society of American Foresters meetings in the past year.</p> <p>From response to an FSC OBS: “Since the 2011 audit, the MD Forest Service state forest managers and other staff have met formally twice focusing on forest certification compliance and relevant issues. An additional meeting included the State Forester, forestry contractor staff, forest managers, regional foresters, and other headquarters staff to focus on 2011 certification standard non-conformances. A training session was offered in February 2012 to the Western Maryland Master Logger program regarding forest certification and policies (e.g. rutting, retention, chain-of-custody, roads maintenance) that have been implemented as a result of the 2011 audit. The training was well attended with 15 participants.</p> <p>Also since the 2011 an Internal Silvicultural Audit has been developed and implemented. This resulted in the visit and evaluation of nine harvest sites across the state. All state forests have implemented a formal documented pre-harvest meeting with the harvest contractor. The forest staff communicates the intention of the harvest and any particular issues that the contractor should be aware of.</p> <p>Savage River State Forest Training Records includes a variety of employees: Staff Safety meetings: 2011 (April, May, Nov) & 2012 (Feb, March) included 6-9 employees Pipeline emergency response and damage prevention training Managing Forest Pests for Watershed Restoration Firefighter training (S-190; s-130; 1-100 Golden winged warbler habitat and silviculture 18th Central hardwood conference Better roads, cleaner streams individual example: Wade Dorsey 45 hours CFE since April 2011</p>
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
16.1.4	Contractor education and training sufficient to their roles and responsibilities.	MF, AMK	12						

Notes	<p>Interviews confirmed that the staff of the forest management contractor (Parker Forestry) has excellent education, experience, and on-going training. Both foresters have Maryland Licenses.</p> <p>A training session was offered in February 2012 to the Western Maryland Master Logger program regarding forest certification and policies (e.g. rutting, retention, chain-of-custody, roads maintenance) that have been implemented as a result of the 2011 audit. The training was well attended with 15 participants.</p> <p>A process titled “Internal Silvicultural Audit (ISA)” has been developed and implemented. This resulted in the visit and evaluation of nine harvest sites across the state. All state forests have implemented a formal documented pre-harvest meeting with the harvest contractor. The forest staff communicates the intention of the harvest and any particular issues that the contractor should be aware of.</p> <p>The first of the pre-harvest meetings with logging contractors implemented as part of the new policy.</p>
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
16.1.5	Forestry enterprises shall have a program for the use of certified logging professionals (where available) and qualified logging professionals.	MF	12						
Notes	Confirmed with Mike Schofield that all harvests are conducted by logging crews with one or more Maryland Master Loggers. Foresters check these credentials by maintaining a list of trained loggers, reviewing the list against web sites listing trained loggers, and then using the list to confirm that trained loggers are involved in each sale other than minor firewood sales. Bid package requires Master Logger to operate the sale.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
16.2	Program Participants shall work individually and/or with SFI Implementation Committees, logging or forestry associations, or appropriate agencies or others in the forestry community to foster improvement in the professionalism of wood producers.								
Notes	See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>

16.2.1	<p>Participation in or support of SFI Implementation Committees to establish criteria and identify delivery mechanisms for wood producers' training courses that address:</p> <ul style="list-style-type: none"> a. awareness of sustainable forestry principles and the SFI program; b. best management practices, including streamside management and road construction, maintenance and retirement; c. reforestation, invasive exotic plants and animals, forest resource conservation, aesthetics, and special sites; d. awareness of responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act, and other measures to protect wildlife habitat (e.g. Forests with Exceptional Conservation Value); e. logging safety; f. U.S. Occupational Safety and Health Administration (OSHA) and Canadian Centre for Occupational Health and Safety (COHS) regulations, wage and hour rules, and other provincial, state and local employment laws; g. transportation issues; h. business management; i. public policy and outreach; and j. awareness of emerging technologies. 	MF	12						
Notes	<p>Steve Koehn is the state's representative on the SIC (refer to notes under indicator 17.1.1 for evidence of support for the Maryland SFI Implementation Committee).</p> <p>Skip Jones has provided support in the past for logging training by speaking on erosion and sedimentation control</p> <p>Master Logger training during this recent year included a session on certification presented by Jack Perdue</p> <p>2011: Maryland Forest Service has provided considerable support for logger training programs. Forestry staff in the western region has not been involved, and opportunities for such involvement might be available. In the east the support has been through Vision Forestry, but an alternative approach will be needed after June 30, 2011 (end date of the management contract).</p>								
	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>

16.2.2	<p>Participation in or support of SFI Implementation Committees to establish criteria for recognition of logger certification programs, where they exist, that include:</p> <ul style="list-style-type: none"> a. completion of SFI Implementation Committee recognized logger training programs and meeting continuing education requirements of the training program; b. independent in-the-forest verification of conformance with the logger certification program standards; c. compliance with all applicable laws and regulations including responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act and other measures to protect wildlife habitat; d. use of best management practices to protect water quality; e. logging safety; f. compliance with acceptable silviculture and utilization standards; g. aesthetic management techniques employed where applicable; and h. adherence to a management or harvest plan that is site specific and agreed to by the forest landowner. 	N.A.							
Notes	<p>Maryland does not have a logger certification program at this time. It does have the Maryland Master Logger Program which recognizes logging operators the have completed the four core courses and have submitted proof of current First Aid and CPR training. The core training includes: logging safety and OSHA regulations, sediment and erosion control, logging aesthetics, spill prevention, forest ecology and silviculture, threatened and endangered species and logger activism. There is an 8-hour per two years continuing education requirement as well.</p>								

Objective 17. Community Involvement in the Practice of Sustainable Forestry.

To broaden the practice of sustainable forestry by encouraging the public and forestry community to participate in the commitment to sustainable forestry, and publicly report progress.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.1</i>	Program Participants shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, conservation organizations, indigenous peoples and governments, community groups, sporting organizations, labor, universities, extension agencies, the American Tree Farm System® and/or other landowner cooperative programs to apply principles of sustainable forest management.	MF	12						
<i>Notes</i>	Maryland Forest Service has provided critical support for the American Tree Farm System, notably helping to revitalize the program in 2009-2010. See indicators below for additional activities.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.1.1</i>	Support, including financial, for efforts of SFI Implementation Committees.	MF	12						
<i>Notes</i>	<p>Maryland DNR makes an annual financial contribution directed mostly to training. Confirmed evidence of financial support for the Maryland-Delaware SFI Implementation Committee focused on Master Logger Program. A MOU is in place between Maryland DNR and University of Maryland Extension wherein Maryland DNR provides funding (\$28,000 over five years) and extension provides support for the Maryland Master Logger Program. This is the main financial support provided by Maryland DNR for the Maryland SFI Implementation Committee and comprises support for logger training as well.</p> <p>"Steve [Koehn] is an active member of the SIC Committee. He began, simply as an interested party, Maryland State Forester, and one of our funders. He now is an integral part of the committee as funding support, but, also as a stakeholder since the State Forest lands have become certified." provided by Peter H. Miller, CF, Administration Supervisor, Luke Wood Department, Westernport, MD 21562</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.1.2</i>	Support for the development of educational materials for use with forest landowners (e.g. information packets, websites, newsletters, workshops, tours, etc.).	MF	12						

Notes	<p>In 2012, Maryland DNR provided the Master Logger course on forest certification, stream crossings, and skidding. They are also working on a trucking course which will include record keeping, taxes, weight limits, etc. Maryland DNR foresters provided significant support and spoke at two major Society of American Foresters meetings in the past year.</p> <p>The following occurred in 2011 but were not listed in 2011 report:</p> <ul style="list-style-type: none"> • Pest and Pathogen update with a focus on emerald ash borer • Logging Hazard Awareness course taught by Wayne Lundstrom (WVU OSHA 3 Training Center) • Logging Fire Safety and Prevention (2 hour classroom lecture and 20 minutes tailgate talk) • Salvage Logging Safety talk • a new CE update course available in correspondence format on DVD or streaming online that includes the fire talk, salvage logging safety, and the pest/pathogen (EAB) update • Forest Pest and Pathogen Field ID Cards for distribution to Master Loggers and private forest landowners • We also offered a welding course for loggers, but had to cancel it due to low registration
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.1.3</i>	Support for the development of regional, state or provincial information materials that provide forest landowners with practical approaches for addressing special sites and biological diversity issues, such as invasive exotic plants and animals, specific wildlife habitat, Forests with Exceptional Conservation Value, and threatened and endangered species.	MF	2012						
Notes	Maryland DNR's broad conservation mandate, University of Maryland Coop Extension, SAF support and involvement all relate to this requirement. Materials available at the Annapolis DNR Forest Service office and on-line were confirmed.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.1.4</i>	Participation in efforts to support or promote conservation of managed forests through voluntary market-based incentive programs such as current-use taxation programs, Forest Legacy Program or conservation easements.	MF	2012						
Notes	Maryland has a robust program called "Program Open Space" http://www.dnr.state.md.us/land/landconservation.asp . Interviews with top management confirmed that this program is well-funded and contributes to forest conservation.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>

17.1.5	Program Participants are knowledgeable about credible regional conservation planning and priority-setting efforts that include a broad range of stakeholders and have a program to take into account the results of these efforts in planning.	MF	2012						
<i>Notes</i>	ID Team and an extensive involvement of specialists ensure such knowledge (see Indicator 4.2.2 above). Further, the Maryland Forest Service works closely with TNC on a variety of forest conservation efforts, including DFS, FIDS, and conservation of special sites. Field audit sites provided good examples from the ID Team process from the past 12 months.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
17.2	Program Participants shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.	MF	2012						
<i>Notes</i>	See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
17.2.1	Periodic educational opportunities promoting sustainable forestry, such as a. field tours, seminars, websites, webinars or workshops; b. educational trips; c. self-guided forest management trails; d. publication of articles, educational pamphlets or newsletters; or e. support for state, provincial, and local forestry organizations and soil and water conservation districts.	MF	2012						

<i>Notes</i>	<p>Eastern Region:</p> <p>CSF/PSF: Allegheny College, SAF-recognized forest technician program will visit, and Mike Schofield will spend a day with the group, May 10, 2012, to discuss forest management and forest certification.</p> <p>Winter 2012 Allegheny SAF Meeting presented on Sustainable Forest Management.</p> <p>Kip Powers organized the 2011 Allegheny SAF Meeting and included forest certification as a topic.</p> <p>Responses from Western Region supervisors that occurred during this past year:</p> <p>1) Seminar: Annual pest update workshops co-sponsored with Dept. of Ag.; audience includes consulting foresters, USFS, rangers, Forest Conservancy District Boards and Citizens Advisory Committee.</p> <p>2) Annual MOU/Partnership with 2 local community colleges. State Forests used as outdoor lab for wildland fire fighting course and chainsaw course including staff participation.</p> <p>3) Seminar: Master Logger training during this recent year included a session on certification presented by Jack Perdue.</p> <p>4) Seminar: Annapolis Lunch presentations - included a presentation by Jack Perdue on forest certification</p> <p>5) Field Tour: College tours X 2 for Hood and Frostburg students</p> <p>6) Field Tour: for @ 25 international travelers in response to a request</p>
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	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.3</i>	Program Participants shall establish, at the state, provincial, or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, <u>unions</u>, the public or other Program Participants regarding practices that appear inconsistent with the SFI Standard principles and objectives.	MF	2012						
<i>Notes</i>	See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>17.3.1</i>	Support for SFI Implementation Committees (e.g. toll free numbers and other efforts) to address concerns about apparent nonconforming practices.								
<i>Notes</i>	Refer to notes under indicator 17.1.1 for evidence of support for the Maryland SFI Implementation Committee.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
17.3.2	Process to receive and respond to public inquiries. SFI Implementation Committees shall submit data annually to SFI Inc. regarding concerns received and responses.	MF	2011						
Notes	<p>Each forest manager responds to inquiries and complaints with direct communications. When these can't be resolved locally the issue occasionally goes to the Annapolis office. Most concerns are resolved locally.</p> <p>Recording complaints: Managers respond with personal attention to all complaints. CF and Pocomoke State Forest (eastern district) keeps a log of complaints. No SFI-related issues have arisen at the CSF or PSF in past year.</p> <p>Public can comment through the Annual Work Plan Review meetings, Citizens Advisory Committee meetings, and the management plan review.</p> <p>See 17.1.1 above for more evidence regarding support for the Maryland SFI Implementation Committee.</p>								

Objective 18. Public Land Management Responsibilities.

To promote and implement sustainable forest management on public lands.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>18.1</i>	Program Participants with forest management responsibilities on public lands shall participate in the development of public land planning and management processes.	MF	12						
<i>Notes</i>	Responses to FSC CAR 2011.7 (management approaches to avoid or mitigate environmental impacts) and FSC CAR 2011.14 (public review of proposed HCV attributes and HCVA areas) provided good evidence of conformance to SFI Objective 18. Public Land Management Responsibilities. A very strong program is in place (see indicators below).								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>18.1.1</i>	Involvement in public land planning and management activities with appropriate governmental entities and the public.	MF	12						
<i>Notes</i>	Maryland Forest Service has for many years developed and implemented an approach to annual (project) and long-term planning that includes significant public involvement. The project plans are detailed in Annual Work Plans, with a formal process for informing the public of proposals and seeking input. Further, each forest's Management Plan provides a good description of activities, and there are public review and comment steps. Finally there are citizen's advisory committees for each forest (CFP and Pocomoke State Forest share a committee) that meet periodically.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
<i>18.1.2</i>	Appropriate contact with local stakeholders over forest management issues through state, provincial, federal or independent collaboration.	MF		12					
<i>Notes</i>	<p>Maryland DNR Forest Service has exceptional programs for public land planning including active advisory committees and accessible and up-to-date web sites.</p> <p>Public can comment through the Annual Work Plan Review meetings, Citizens Advisory Committee meetings, and the management plan review. See detailed description in previous indicator. The Fiscal Year 2012 AWP for the Eastern Region State Forest Lands (Chesapeake Forest and PSF) includes public comments.</p> <p>Examples of press releases and newspaper articles describing public input opportunities were reviewed. A comment on the Potomac/Garrett State Forest 2013 Annual Work Plan was reviewed as well.</p>								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
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18.2	Program Participants with forest management responsibilities on public lands shall confer with affected indigenous peoples.	MF	12						
<i>Notes</i>	See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
18.2.1	Program that includes communicating with affected indigenous peoples to enable Program Participants to: <ul style="list-style-type: none"> a. understand and respect traditional forest-related knowledge; b. identify and protect spiritually, historically, or culturally important sites; and c. address the use of non-timber forest products of value to indigenous peoples in areas where Program Participants have management responsibilities on public lands. 	MF	2012						
<i>Notes</i>	<p>CSF/PSF: Mike Schofield, CFP Manager, DNR Forest Service at request of various tribes who were interested in potential burial sites for Indian remains has shown them some potential areas and has passed the issue on to DNR and Maryland Historic Trust (MHT). MHT has developed criteria for appropriate sites.</p> <p>November 2012 meeting of the Citizens Advisory Committee to review 2013 work plan included involvement by Chief Rudy Hall, who has confirmed credentials. Chief Hall played an active role in the meeting.</p> <p>Managers met with Maryland Commission on Indian Affairs (Mar 7, 2011). Members have been extended an invitation to serve on local Citizens Advisory Boards and some of accepted that invitation.</p>								

Objective 19. Communications and Public Reporting.

To broaden the practice of sustainable forestry by documenting progress and opportunities for improvement.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
19.1	A Certified Program Participant shall provide a summary audit report, prepared by the certification body, to SFI Inc. after the successful completion of a certification, recertification or surveillance audit to the SFI 2010-2014 Standard.	MF	12						
<i>Notes</i>	NSF has prepared the summary report; Maryland Forest Service required to provide this summary audit report to SFI, Inc.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
19.1.1	The summary audit report submitted by the <i>Program Participant</i> (one copy must be in English), shall include, at a minimum, <ul style="list-style-type: none"> a. a description of the audit process, <i>objectives</i> and scope; b. a description of substitute <i>indicators</i>, if any, used in the audit and a rationale for each; c. the name of <i>Program Participant</i> that was audited, including its SFI representative; d. a general description of the <i>Program Participant</i>'s forestland and manufacturing operations included in the audit; e. the name of the <i>certification body</i> and <i>lead auditor</i> (names of the <i>audit team</i> members, including <i>technical experts</i> may be included at the discretion of the <i>audit team</i> and <i>Program Participant</i>); f. the dates the certification was conducted and completed; g. a summary of the findings, including general descriptions of evidence of conformity and any nonconformities and corrective action plans to address them, opportunities for improvement, and exceptional practices; and h. the certification decision. 	MF	12						
Notes	NSF has prepared the summary report to include all of the above items.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
19.2	Program Participants shall report annually to SFI Inc. on their conformance with the SFI 2010-2014 Standard.	MF	12						
Notes	See indicators below.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
19.2.1	Prompt response to the SFI annual progress report.								
Notes	Confirmed with SFI, Inc. 2011 report provided on time and is complete (Rachel Dierolf, SFI Inc. email								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
19.2.2	Recordkeeping for all the categories of information needed for SFI annual progress reports.	MF	12						
<i>Notes</i>	Managers maintain comprehensive and detailed records that cover all aspects of the program needed to complete the annual progress reports (and far more within database and files). Lead Auditor reviewed the interim reports from the various state forest managers which are then compiled into the single, system-wide report.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
19.2.3	Maintenance of copies of past reports to document progress and improvements to demonstrate conformance to the SFI 2010-2014 Standard.	MF	12						
<i>Notes</i>	A copy of most recent report and it was provided to the NSF Lead Auditor.								

Objective 20. Management Review and Continual Improvement.

To promote continual improvement in the practice of sustainable forestry, and to monitor, measure and report performance in achieving the commitment to sustainable forestry.

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
20.1	Program Participants shall establish a management review system to examine findings and progress in implementing the SFI Standard, to make appropriate improvements in programs, and to inform their employees of changes.	MF	2012						
<i>Notes</i>	See indicators.								

	2010-2014 Requirement	Audit -or	<u>C</u>	<u>EXR</u>	<u>Maj</u>	<u>Min</u>	<u>OFI</u>	<u>Likely Gap *</u>	<u>Likely Conf. *</u>
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20.1.1	System to review commitments, programs and procedures to evaluate effectiveness. Note: For multi-site programs the auditing requirements of Section 9 or the ISO MD-1 requirements must be followed (see Multi-site Checklist); at a minimum internal audits or monitoring that spans all sites and addresses the relevant part of the SFI Standard is expected.	MF	12						
Notes	<p>The system includes the use of harvest monitoring forms as well as meetings between field staff and state forest managers (all staff at each state forest work from the same office as their managers). Discussed and confirmed the new ISA (Internal Silvicultural Audits) procedure which includes “Forest Practice Review” form.</p> <p>The internal audit on March 29-30 for the western State Forests and on April 3, 2012 at the CSF/PSF was led by Jack Perdue, using the post-activity checklist to review 2-3 sites. The internal audit team included the foresters involved in the program (state and contract foresters).</p> <p>State forest managers report to regional managers, and provide information formally (CF State Forest Management Plan, Appendix I “Policy for SFI Management Review and Continual Improvement” specifies “biannual reports will be filed by the State Forest manager”) and informally.</p> <p>Process appears to be robust and useful.</p>								

	2010-2014 Requirement	Audit -or	C	EXR	Maj	Min	OFI	Likely Gap *	Likely Conf. *
20.1.2	System for collecting, reviewing, and reporting information to management regarding progress in achieving SFI 2010-2014 Standard objectives and performance measures.	MF	12						
Notes	<p>Activity Summary By Annual Work Plan” demonstrates clear and steady progress by comparing “the work scheduled in each annual work plan against the amount of work implemented/completed in the field.”</p> <p>New ISA (Internal Silvicultural Audits) procedure which includes “Forest Practice Review” form is operating in both the Western and Eastern Regions. Internal audits on March 29-30 in the west and on April 3, 2012 at the CSF/PSF were led by Jack Perdue, using the post-activity checklist to review 2-3 sites for each forest. The Eastern internal audit team included Mike Schofield, Alex Clark, Kip Powers, Skip Jones, Stacey Esham, and John Connors (last three with Parker Forestry). The western internal audits involved: Wade Dorsey (SRSF), Mark Beals and Jesse Morgan (GRSF) and Noah Rawe (PGSF). Regional Forester Bob Webster was also part of each of the western ISA exams.</p>								

	2010-2014 Requirement	Audit -or	C	EXR	Maj	Min	OFI	Likely Gap *	Likely Conf. *
20.1.3	Annual review of progress by management and determination of changes and improvements necessary to continually improve conformance to the SFI 2010-2014 Standard.	MF	12						

<i>Notes</i>	<p>An annual management review was conducted on December 12, 2011 and the report was reviewed. The review included the senior management team (Annapolis-based), the regional foresters, forest managers for the involved state foresters, and the chief forester from the contract forest consulting firm. The review included topics from the 2012 third-party audit findings, changes in plans and policies, and a statement from Steven W. Koehn, Director / State Forester, Maryland DNR Forest Service regarding his overall goals for the state forests: 1-Roads Inventory and Maintenance; 2 – Improved Forest Stocking; 3- Improved Trails System. These priorities are clearly playing out in field operations to some degree, with much work to be done. The annual review process meets the requirements and appears to be well integrated into the program.</p>
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Multi-site Certification – Two Options

A multi-site organization is defined as an organization having an identified central function (hereafter referred to as a central office – but not necessarily the headquarters of the organization) at which certain activities are planned, controlled or managed and a network of local offices or branches (sites) at which such activities are fully or partially carried out.

Organization does **NOT** meet the definition above; the remaining questions do not apply and all remaining portions of the multi-site checklists may be deleted from the report.

Option 1: Alternate Approach to Multi-site Certification Sampling based on the Requirements for the SFI 2010-2014 Program, Section 9, Part 5.1 & Appendix 1

- a) What specific activities are planned, controlled or managed at the central office?
Management review, budgets, personnel, policies
- b) For each activity, provide evidence:
Policies were reviewed and included statements in management plans, Operation Order 2011-601 “Timber Operation Order”, policy documents for each region, and overall policies on certification provided to the team and described above. The program is quite centralized, with variation in the two districts due to different bio-physical conditions.

General Eligibility Criteria:

A legal or contractual link shall exist between all sites.

Yes No Evidence Web sites, plans confirm all lands owned by State of Maryland and covered by laws governing state forests.

The scope and scale of activities carried out by participating sites shall be similar.

Yes No Evidence The four management plans that cover the six state forests within the scope describe the same goals, objectives, and practices.

The management system framework shall be consistent across all sites (allowing for site level procedures to reflect variable local factors).

Yes No Evidence Management plans describe procedures and policies which are consistent across all forests excepting some variation in the two regions that is due to different bio-physical conditions in eastern and western Maryland.

Central Function Requirements:

Provide a commitment on behalf of the whole multi-site organization to establish and maintain practices and procedures in accordance with the requirements of the relevant standard.

Yes No Evidence Governor’s commitment.

Provide all the sites with information and guidance needed for effective implementation and maintenance of practices and procedures in accordance with the relevant standard.

Yes No Evidence Jack Perdue is responsible for “Public Lands Stewardship”. He

provides guidance, templates, etc. used for most aspects of state forest management and for certification-specific issues.

Maintain the organizational or contractual connection with all sites covered by the multisite Organization including the right of the Central Function to exclude any site from participation in the certification in case of serious non-conformities with the relevant standard.

Yes No Evidence State forester's efforts to meet Governor's commitment covers all sites.

Keep a register of all the sites of the multi-site organization, including (for SFI 2010-2014 Standard) the forest area associated with each participating site.

Yes No Evidence Certificate covers all Maryland's state forests listed; the list of certified forests is on the web site..

Maintain an internal audit or monitoring program sufficient to provide annual performance data on overall organizational conformance with the relevant standard.

Yes No Evidence Conformity tables were prepared to assess the readiness of the districts; not conducted at the forest level initially. Harvest monitoring forms. New ISA (Internal Silvicultural Audits) procedure which includes "Forest Practice Review" checklist is in place, and a sample of sites was reviewed prior to the NSF audit.

Operate a review of the conformity of sites based on results of internal audit and/or monitoring data sufficient to assess Organizational performance as a whole rather than at the individual site level.

Yes No Evidence Jack Perdue led internal audits in each of the involved units, involving 9 randomly-selected completed harvests. New ISA (Internal Silvicultural Audits) procedure which includes "Forest Practice Review" form is a key part of these audits, and the completed forms were reviewed by the audit team. This process is quite robust at the field level.

Establish corrective and preventive measures if required and evaluate the effectiveness of corrective actions taken.

Yes No Evidence Corrective measures would be listed on the "Forest Practices Review" form. No follow-up actions were entered on the forms reviewed by the audit team.

Establish procedures for inclusion of new sites within the multi-site organization including an internal assessment of conformity with the standard, implementation of corrective and preventive measures and a requirement to inform the relevant certification body of changes in participation prior to including the sites within the scope of the certification.

Yes No Evidence Maryland's largest state forests are included.

Individual Site Functions and Responsibilities

Sites implement and maintain the requirements of the relevant standard.

Yes No Evidence See matrix above.

Sites respond effectively to all requests from the Central Function or certification body for relevant data, documentation or other information whether in connection with formal audits or reviews or otherwise.

Yes No Evidence Sites are prepared to address non-conformances; program recently

expanded.

Sites provide full co-operation and assistance in respect of the satisfactory completion of internal audits, reviews, monitoring, relevant routine enquiries or corrective actions.

Yes No Evidence Interviews and review of the notes of the formal management review confirmed that the sites provided co-operation.

Sites implement relevant corrective and preventive actions established by the central office.

Yes No Evidence Interviews and review of the notes of the formal management review. No follow-up actions were entered on the forms reviewed by the audit team.

Appendix V



Notes and List of Participants

2012 Background and changes

Annapolis Office

1. Moving towards creating an ATV-trail network; very preliminary
2. Program Open Space, funded statewide from the ag-transfer tax, had been focused on land acquisition, for the next two years the focus would be on repairs to and maintenance of existing infrastructure, particularly roads and trails. FY 13 will get \$300,000 for design money for engineering and \$1.6 million for construction of roads, trails, and other recreation infrastructure.
3. Other changes related to the CARs

CSF/PSF

1. Based on the revised **Timber Operations Order**, a longer list has been developed (not yet implemented) of items to include in proposed AWP, as part of the ID Team Process. The purpose is to make certain all required items are addressed.
2. There is a process and checklist for a post-harvest review of completed projects, and the ID Team will review a sample of these. This checklist has been tested and revised, with input from the ID Team and from forest managers.
3. Contract manager is now Parker Forestry, and now works on both PSF and CSF
4. Timber sale revenues handled differently
5. Changes to members of the Citizens Advisory Committee
6. One classified position vacant and possibly will be lost or downgraded to a long-term contractual position
7. Policy changes: rutting policy “tweaked” and placed on the BMP checklist
8. Forest Stand Retention policy changed; have only tweaked the policy in minor ways; statewide bi-annual forest manager meetings provide some informal training.

Participants, Annapolis and Eastern District

- Anne Marie Kittredge, Lead Auditor, SCS
- Mike Ferrucci, Lead Auditor, NSF mferrucci@iforest.com
- Steven W. Koehn, Director / State Forester, Maryland DNR Forest Service
skoehn@dnr.state.md.us
- Kenneth Jolly, Associate Director, DNR Forest Service, kjolly@dnr.state.md.us
- Jack Perdue, DNR Forest Service, jperdue@dnr.state.md.us
- Kip Powers, DNR Forest Service, kpowers@dnr.state.md.us
- Mike Schofield, CFP/PSF Manager, DNR Forest Service, mschofield@dnr.state.md.us
- Alexander Clark, Forester, Maryland DNR Forest Service
- Wesley Knapp, Ecologist, Maryland Natural Heritage Program, wknapp@dnr.state.md.us
- Anne Hairston-Strang, Forest Hydrologist, Maryland DNR
- Brett Coakley, DNR Fisheries Biologist
- Don Kronner, CFP Technician, DNR Forest Service, dkronner@dnr.state.md.us
- Roy Miller, Pocomoke State Forest Technician, Maryland DNR Forest Service
- William DeMar, Tech II, Maryland DNR Forest Service
- Lance Carroll, Natural Resources Technician II, Maryland DNR Forest Service
- Tony DiPaolo, Forester, Cropper Brothers Lumber Company, Citizens Advisory Board
- David Ray, Forester/Ecologist, TNC, Citizens Advisory Board
- Skip Jones, Parker Forestry
- Stacey Esham, Parker Forestry
- John Connors, Parker Forestry
- Robert Feldt, DNR Forest Service, rfeldt@dnr.state.md.us
- Dr. Joan Maloof, Department of Biological Sciences, Salisbury University, Citizen Advisory Committee, jemaloof@salisbury.edu
- Arthur Egolf, Egolf Forest Harvesting, Inc. , Citizen's Advisory Committee – Logger
- NWR, Citizen's Advisory Committee
- Gary Adelhardt, Park Manager, Pocomoke River State Park, ID Team Member
- Rich Turner, Dorchester Lumber Company

Participants, Savage River State Forest (SRSF)

- Jeramie Foy, Maryland DNR Forest Service, SRSF
- Wade Dorsey, Maryland DNR Forest Service, Manager, SRSF
- Noah Rawe, Maryland DNR Forest Service SRSF
- Mark Beals, Maryland DNR Forest Service, Manager, GRSF
- Brent Stemple, Maryland DNR Forest Service, SRSF
- Roger Round, Maryland DNR Forest Service, SRSF
- Scott Campbell, Maryland DNR Forest Service, Forester, SRSF
- Mike Johnson, Maryland DNR Forest Service, SRSF
- Jenny Hady, Maryland DNR Forest Service, SRSF
- James Hare, Maryland DNR Forest Service, SRSF

- Jackie Boyle, Maryland DNR Forest Service, SRSF
- Robert Ney, Maryland DNR Forest Service, SRSF
- Ken Roberts, NewPage
- Ken Gibbs, NewPage
- Jesse Morgan, Maryland DNR Forest Service, Forester, GRSF
- Rusty Leonard, logging contractor, Eastern Hardwoods
- Chuck Hoffeditz, SRSF Advisory Committee
- Ed Thompson, MD Natural Heritage Program
- John Denning, Maryland DNR Forest Service, Manager, PGSF
- Mary Ironside, Maryland DNR Park Service, SRSF ID Team
- Steven Green, SRSF Citizens Advisory Board
- Jim Minogue, SRSF Citizens Advisory Board
- Steven Koehn, Maryland DNR Forest Service, State Forester
- Kenneth Jolly, Maryland DNR Forest Service Assoc. Dir.
- Jack Perdue, Maryland DNR Forest Service,
- Alan Heft, MD DNR Fisheries
- Sunshine Brosi, Frostburg State University, SRSF Citizens Advisory Board

Participants, Green Ridge State Forest (SRSF)

- Kenneth Jolly, Associate Director FS
- Mark Beals, Forest Manager GRSF
- Jesse Morgan , Asst. Forest Manager GRSF
- Bob Webster, Regional Forester
- Jack Perdue, Supervisor, Forest Stewardship FS
- Wade Dorsey, Forest Manager SRSF
- Scott Campbell, Forester SRSF
- John Denning, Forest Manager PGSF
- Noah Rawe, Forest Technician PGSF
- Jason Savage, Forest Technician PGSF
- Ken Roberts, New Page Inc. & Citizens Advisory Committee
- Jeff Bracken, New Page Inc.
- Donnelle Keech, Nature Conservancy & Citizens Advisory Committee.
- Steve Resh, Allegany College & Citizens Advisory Committee.

Tuesday May 2, 2012, Mike Ferrucci Sites - Chesapeake Forest

WR45 Foster – 1st Thinning and Modified 1st Thinning to favor Shortleaf and associates
Active Harvest site, interviewed Arthur Egoff; Conventional thinning partially completed; Also modified treatment to remove all Loblolly and Virginia Pines and retain all other pine and hardwood to favor Pitch, Pond, Shortleaf and hardwoods on this poor-condition G3 Sand Ridge Community. The harvesting work here is superb, with surprising amount of understory hardwood retained. Botanist described this as a common community locally and not high enough priority for costly ecological restoration effort. Confirmed that botanist and other ID Team members comments getting onto Annual Work Plan and getting into the hands of the field foresters who layout and supervise harvests, including Parker Forestry.

WR45 Foster – Tree Planning

Planted mostly Shortleaf Pine (unprotected) and a variety of native hardwoods (in vented tubes) near a former farm pond on a degraded site.

W18 Humphry – 1st Thinning

Completed thinning goal 70 square feet of basal area per acre; actual 50 but stand still fully stocked; on this site there were some mitigating factors for the low stocking. Data on other thinnings done by this contractor showed a range from 60 to 80 which is generally acceptable. Confirmed ID Team/AWP processes; good residual stand and BMPs; good utilization.

WR46 Campbell– 1st Thinning and Wango Pines Restoration Area

This site was visited during 2011 audit. The clearcut has been completed, including challenging (poor markets) removal of hardwoods from old windrow areas; the site is an ambitious restoration of early successional habitat; will allow 1-2 growing seasons before burning; discussed adjacent non-riparian wetlands.

WR46 Campbell– Powell Road Wetlands Restoration Project

Completed harvest of dense, young pine stand used by Dorchester Lumber Co. for fuel chips. Site formerly had rare, early-successional rare plants (wire grass, red milk weed) but the planted Loblolly pine stand had shaded the site and the plant population was lost, except for expected seed-bank. Goal was to ensure long-term viability of rare plant populations by combatting woody plant succession. Very clean site that will be burned in 1-2 years and then monitored to determine success.

WR12 Purnell– 1st Thinning and Final Harvest in an ESA 3

Original prescription for thinning entire stand was revised to clearcut with retention for the portion of the stand that had a spot infestation of southern pine beetle. Retention meets policies and requirements. Thinning to BA 80 meeting goals and requirements. Site is a good example of management for fiber (pulpwood) and early seral.

WR14 Hopkins-Timmons – 2nd Thinning in a General Management Areas

Stand 4 completed 2nd thinning in 2011 based on prescription in database which also included Stand 2 second thinning. However the 2003 work plan prescribed mid-rotation hardwood control and fertilizing, practices which have been largely phased out and did not prescribe a

second thinning. Maryland DNR is researching older work plans regarding the 2nd thinning in Stand 4. The prescription was clearly appropriate given the zoning, conditions, previous work, and prescribed intensive chemical treatments (approved).

Wednesday May 2 Mike Ferrucci Sites - Chesapeake & Pocomoke State Forest

WR24 Johnson & Johnson, CF– Clearcut, 1st Thinning and Seed Tree Harvest

Stand 3 was a very large stand of 46-year old planted Loblolly pine undergoing various treatments to develop smaller stands and diversity. Stand has had understory burns of varying intensity. Future stand condition sought is a mixed pine-hardwood stand on a longer rotation. Discussed regeneration survey methods and reviewed tracking spreadsheet used by Parker Forestry to track regeneration survey needs and accomplishments.

Prescriptions reviewed (some in field, all via paperwork):

Seed-tree Harvest – seed trees and logging work good; Clearcut with Retention – retention meets guidelines, focused on hardwood and best patches with hardwoods and some larger pine Shelterwood (not viewed in field)

S14 W. Post Office, Stand 1 CF – Final Harvest in a General Management Area

Recently completed (not closed out) clearcut with reserves in a 21 acre, 43-year old Loblolly pine plantation. Retention in blocks. Good job with the road work to ensure access and to protect the riparian zone for adjacent Dividing Creek. Natural regeneration from seed from surrounding stands and retained clumps expected to be sufficient (by policy will monitor) but considering a site-preparation burn (normally between July and October) to develop better seed-bed and to reduce logging slash and competing vegetation.

Nazereth Church Tract 6, Stand 8, PSF – Prescribed Burn Pland # 2012-4016 in an area with combinations of G3 community (sand ridge), ESA Zone 1 and DFS Future Core

Completed understory burn 3-30-12, which proceeded according to the burn plan so that the written burn objectives were met. Goal was to remove 2-3 inches of a much thicker litter layer to promote natural regeneration of pond pine so that the stand can be regenerated. This site is an example of the effectiveness of the ID Team process. The initial prescription for a standard clearcut was modified to include the pre-harvest burn to address botanist's concerns that the standard clearcut would reduce the Pond Pine component in favor of the more aggressive Loblolly pine. Next step will be a harvest in September or October so that they can also harvest some Pond Pine cones for use on other restoration projects.

Dividing Creek Tract 14, Stand 12, PSF – Pre-Commercial Thinning

Completed 23-acre pre-commercial thinning which spaced mostly Loblolly pine leaving some desirable hardwood trees. Forest managers check 6-8 year old naturally-regenerated stands and prescribe PCT as needed. The work is put out to bid and a licensed contractor with a valid tax ID number and USDA designation as a farm labor contractor is selected, in this case a company owned by Melvin Beteta. Interviewed Maryland DNR staff to confirm safe working conditions including posters, sanitary facilities, and periodic inspections by other state agencies.

Maryland DNR – Western Region –Sites Visited by Anne Marie Kittredge

SAVAGE RIVER STATE FOREST**

** This State Forest did not complete any harvest projects during this audit cycle, therefore, all of the following harvest sites were reviewed however note that these site harvests were completed before this western region of MD DNR received FSC/SFI certification.

1. **SR-03-10 (Jacobs Road):** 25-acre regeneration/salvage (gypsy moth and ice damage). Completed with grapple skidders during **2010** as described in the FY 2007 Annual Work Plan. Invasive plants are not yet noted as an issue although small amounts of multi-flora rose (*Rosa spp*), *Barberry* (*Berberis spp*) and Japanese Spiraea (*Spiraea japonica*) are present mostly in association with an old home site and are being monitored. Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges. Boundaries are well-marked. Rutting definition and rutting policy discussed although ruts are not present on this site; field foresters are knowledgeable & ready to implement this new policy. Timber Sale Inspection Reports completed and reviewed by auditor.
2. **SR-07-09 (Swamp Road):** 16-acre regeneration/salvage (gypsy moth and ice damage). Completed with cable skidders during **2009**. Invasive plants are not yet noted as an issue although the presence of invasive plants is monitored following harvest. Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges. Harvest associated with the 17-mile Big Savage Hiking Trail. Signage used to warn hikers. Boundaries are well-marked. Nearby wetland of Special State Concern = Vernal Pools described by Heritage representative although VPs are not defined on this site. Rutting definition and rutting policy discussed although ruts are not present on this site; field foresters are knowledgeable & ready to implement this new policy. Timber Sale Inspection Reports completed and reviewed by auditor.
3. **SR-09-09 (Russell Road):** 53-acre salvage (gypsy moth and ice damage). Completed with skidders during **2009**. Expedited salvage project implemented. As discussed, this salvage harvest represents an example of a missed opportunity. Field foresters recognize that they could have combined this salvage harvest with a regeneration harvest by removing low quality hardwoods (red maple) as well as the standing dead trees. Invasive plants are not yet noted as an issue and are being monitored. Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges. Boundaries are well-marked. Water resource and soil protection is identified as an issue on this site. Rutting definition and rutting policy discussed; 18-24" ruts are present throughout this site and rut pools could be an issue(sink) in association with nearby vernal pools and specifically during the migration of vernal pool dependent species. Field foresters identified and flagged some areas of wetland indicator plants (*Osmunda spp*) but missed other indicators of saturated soil that lacked *Osmunda*. In hindsight, field foresters acknowledged ruts and are ready to implement this new rut policy. This 2009 harvest is not in conformance with FSC/SFI standards however this harvest was completed before this western region of MD DNR including this State Forest received FSC/SFI certification. Timber Sale Inspection Reports completed and reviewed by auditor; these reports did not acknowledge ruts > 10 inches deep although notes occasionally include a description of water on the landing or a request by the operator to move a skid road to avoid standing water.
4. **Bear Pen:** Lunch stop. Invasive plant removal effort completed by volunteers in association with Wildlands. Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges including this

area. This site represents 5 years of hand pulling efforts by Frostburg student volunteers who removed > 2000 lbs of *Allaria petiolata* and *Spiraea japonica*. One possibly newly established invasive population of chickweed (*Stellaria spp*) also noted and pointed out by Heritage representative during this stop. Newly installed Wildlands sign observed at entrance to this Wildland area as well as elsewhere along roads during this audit program; these Wildlands signs were installed in response to to harvest that mistakenly occurred in a Wildland and was visited during the 2011 audit.

5. **Near Savage River Reservoir:** Newly identified location of the newly identified invasive plant, yellow archangel (*Lamium galeobdolon*). Excellent example of invasive plant control and effective communication between other resource inventory staff (who documented this invasive plant population) and forestry staff. *Lamium galeobdolon* recently treated with Rodeo by forestry staff who continues to monitor this treated area.
6. **Gleason Hill Road:** Road inventory and maintenance plans reviewed at this site. Reviewed the location of 54 broad base dips and 2 culvert locations that have recently been identified and mapped. This specific site's road improvements will be implemented as part of the first stage of this state-wide road inventory and maintenance project and in response to 1 of the 2011 CARs. Multi-flora rose (*Rosa spp*), Barberry (*Berberis spp*) and Garlic mustard (*Allaria petiolata*) are well-established and problematic; these invasive plant populations have been identified previously and were pointed out by forestry staff.
7. **SR-05-10 (Poplar Lick):** 40-acre salvage (gypsy moth and ice damage). Completed during **2010** as described in the FY 2008 Annual Work Plan. Invasive plants are not yet noted as an issue although small amounts of multi-flora rose (*Rosa spp*), Barberry (*Berberis spp*) and Japanese Spiraea (*Spiraea japonica*) are present. Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges. Boundaries are well-marked. Rutting definition and rutting policy discussed in association with an illegal trespass by an ORV which damaged recently installed water bars and dips immediately following the completion of this harvest. DNR installed a gate to prevent future illegal use by ORVs. Damage to this site is not as shocking as it could have been. Field forester's response to this ORV issue including the installation of the gate should be commended although additional work to re-open water bars etc has yet to be completed. As discussed, this salvage harvest represents an example of a missed opportunity. Field foresters recognize that they could have combined this salvage harvest with a regeneration harvest by removing low quality hardwoods (red maple) as well as the standing dead trees. Retention of standing dead snags was noted. Timber Sale Inspection Reports completed and reviewed by auditor.
8. **SR-02-10 (Fairview Road):** 40-acre salvage (gypsy moth and ice damage). Completed during **2009** as described in the Savage River State Forest Gypsy Moth Salvage Proposals 2009. Expedited salvage project implemented. Invasive plants are not yet noted as an issue. Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges. Boundaries are well-marked. Skid roads grassed in and stable. Rutting definition and rutting policy discussed; ruts not observed. As discussed, this salvage harvest represents an example of a missed opportunity. Field foresters recognize that they could have combined this salvage harvest with a regeneration harvest by removing low quality hardwoods (red maple) as well as the standing dead trees. Retention of standing dead snags and live hemlock was noted. Timber Sale Inspection Reports completed and reviewed by auditor.

GREEN RIDGE STATE FOREST

9. **GR-03-11 (Green Ridge Road):** 30-acre old field Virginia pine salvage/removal in 3 separate blocks. Marked to retain. Retention of (painted) standing dead snags and living oaks, serviceberry and cherry is in conformance with the newly established retention policy and the FSC/SFI standards. Sale area was marked and sold before the 2011 audit and the harvest was completed with skidders ~ 2 weeks before this (2012) audit site visit. Invasive plants are not yet noted as an issue although Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges and Japanese stilt grass (*Microstegium vimineum*) is present in this landscape. Boundaries are well-marked. Rutting definition and rutting policy discussed although ruts are not present on this site; field foresters are knowledgeable & described how the operators were held to this new policy through a pre-harvest meeting and description of the new policy as well as more frequent site checks. Un-cut buffer left in consideration of hunting cabin and campsites. Additional aesthetics consideration demonstrated in association with small vista opening and retention of serviceberry and dogwoods.

10. **GR-04-12 (Gordon Road):** 25-acre variable retention harvest of 95-year old oak/hardwood stand in 2 separate blocks. Block #1 - Marked to retain primarily in groups including a 1-acre island of retention. Excellent retention of (painted) living oaks, serviceberry and other shrubs is in conformance with the newly established retention policy and the FSC/SFI standards. Minimal LWD and snag retention due to lack of these resources before sale. These resources occur in the uncut stream buffer and uncut island of retention. No deer pressure issues. Block #2 - Marked to retain primarily in groups including a ~2-acre island of retention on the ridge and other smaller islands below the ridge. Excellent retention of (painted) living oaks, white pine, serviceberry and other shrubs is in conformance with the newly established retention policy and the FSC/SFI standards. Snags and LWD retention observed throughout this block of the harvest area. These resources also occur in the uncut stream buffer and uncut islands of retention. No deer pressure issues. Both block #1 and block #2 sale areas were marked and sold before the 2011 audit and the harvest was completed with skidders ~ 2 weeks before this (2012) audit site visit. Invasive plants are not yet noted as an issue although Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges and Japanese stilt grass (*Microstegium vimineum*) is present in this landscape. Boundaries are well-marked. Rutting definition and rutting policy discussed although ruts are not present on this site; field foresters are knowledgeable & described how the operators were held to this new policy through a pre-harvest meeting and description of the new policy as well as more frequent site checks. Un-cut buffer left in consideration of road and campsites. Additional aesthetics consideration demonstrated in association with retention of serviceberry and dogwoods.

11. **GR-05-10 (Jacobs Road):** 38-acre variable retention harvest of oak/hardwood stand in 3 separate blocks. New gate installed by operator. This is a challenging situation; implementation demonstrates the use of excellent pre-harvest planning steps and on-site supervision. The first 2 blocks are separated by an uncut filter strip and temporary bridge across a small stream. Block #1 - Marked to retain primarily in groups including a > 1-acre island of retention. Excellent retention of (painted) living oaks, serviceberry and other shrubs is in conformance with the newly established retention policy and the FSC/SFI standards. LWD and snag retention observed throughout. These

resources also occur in the uncut stream buffer and uncut island of retention. No deer pressure issues. Block #2 - Marked to retain primarily in groups including a > 2-acre island of retention. Excellent retention of (painted) living oaks, serviceberry and other shrubs is in conformance with the newly established retention policy and the FSC/SFI standards. Snags and LWD retention observed throughout this block of the harvest area. These resources also occur in the uncut stream buffer and uncut islands of retention. No deer pressure issues. Block #3 - Not observed. Block #1 - Block #3 sale areas were marked and sold before the 2011 audit and the harvest is about 50% complete using a skidder although the operator was not present during this (2012) audit site visit. Invasive plants are not yet noted as an issue although Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges and Japanese stilt grass (*Microstegium vimineum*) is present in this landscape. Boundaries are well-marked. Water resource protection implemented through the use of a no-cut buffer on the stream and the required application and grated request for the installation of a temporary bridge (owned by MD DNR) to provide the only reasonable access between the 2 largest harvest blocks and the landing. The stream channel below the bridge was checked; silt has not been deposited in the stream channel. The locations of temporary water bars have been identified. These water bar locations are opened up at the end of a day that precedes a rain event in an effort to prevent erosion on the steepest sections of road that approach the stream and temporary stream crossing. Rutting definition and rutting policy discussed although ruts are not present on this site; field foresters are knowledgeable & described how the operator is being held to this new policy through a pre-harvest meeting and description of the new policy as well as frequent site checks.

12. **GR-03-12 (Gorman Road):** 26-acre variable (diffuse) retention harvest of oak/hardwoods. Marked to retain. Retention of (painted) standing dead snags and living oaks, serviceberry and all hickory is in conformance with the newly established retention policy and the FSC/SFI standards. Excellent LWD and snag retention was observed (better than observed at other sites reviewed during this same day) and included for example ~ 20 inch white oak. This sale area was marked and sold before the 2011 audit and the harvest was completed with skidders very recently. This sale is not yet closed. The operator still needs to complete a minor amount of grading, etc. Invasive plants are not yet noted as an issue although Garlic mustard (*Allaria petiolata*) is scattered along most road-side edges and Japanese stilt grass (*Microstegium vimineum*) is present in this landscape. Boundaries are well-marked. Rutting definition and rutting policy discussed although ruts are not present on this site; field foresters are knowledgeable & described how the operators were held to this new policy through a pre-harvest meeting and description of the new policy and especially through unusually frequent site checks (every day). Excellent roads and rutting control throughout. A 200-foot un-cut buffer was retained in between the road and the harvest site.
13. **Anthony's Ridge:** Wildlife Habitat area. Management issues not observed.
14. **Re-visit of 2011 Audit Rutting Issue:** Ruts repaired.

Appendix IV



SFI Reporting Form

**One change:
204,517 total acres**