FOREST MANAGEMENT AND STUMP-TO-FOREST GATE CHAIN-OF-CUSTODY SURVEILLANCE EVALUATION REPORT

State of Maryland DNR - Forest Service

Maryland, USA

SCS-FM/COC-00069P

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CERTIFIED EXPIRATION
29/April/2014 28/April/2019

DATE OF FIELD AUDIT
6-10/April/2015
DATE OF LAST UPDATE
17/April/2015

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Foreword

Cycle in annual surveillan	nce audits		
X 1 st annual audit	2 nd annual audit	3 rd annual audit	4 th annual audit
Name of Forest Manager	nent Enterprise (FME) and	abbreviation used in this r	eport:
State of Maryland DNR –	Forest Service (FME or MD	DNR)	

All certificates issued by SCS under the aegis of the Forest Stewardship Council (FSC) require annual audits to ascertain ongoing conformance with the requirements and standards of certification. A public summary of the initial evaluation is available on the FSC Certificate Database http://info.fsc.org/.

Pursuant to FSC and SCS guidelines, annual / surveillance audits are not intended to comprehensively examine the full scope of the certified forest operations, as the cost of a full-scope audit would be prohibitive and it is not mandated by FSC audit protocols. Rather, annual audits are comprised of three main components:

- A focused assessment of the status of any outstanding conditions or Corrective Action Requests (CARs; see discussion in section 4.0 for those CARs and their disposition as a result of this annual audit);
- Follow-up inquiry into any issues that may have arisen since the award of certification or prior to this audit; and
- As necessary given the breadth of coverage associated with the first two components, an additional focus on selected topics or issues, the selection of which is not known to the certificate holder prior to the audit.

Organization of the Report

This report of the results of our evaluation is divided into two sections. Section A provides the public summary and background information that is required by the Forest Stewardship Council. This section is made available to the general public and is intended to provide an overview of the evaluation process, the management programs and policies applied to the forest, and the results of the evaluation. Section A will be posted on the FSC Certificate Database (http://info.fsc.org/) no less than 90 days after completion of the on-site audit. Section B contains more detailed results and information for the use by the FME.

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SECTION A - PUBLIC SUMMARY

1. General Information

1.1 Annual Audit Team

Auditor Name:	Kyle Meister	Auditor role:	FSC Lead Auditor
Qualifications:	Kyle Meister is a Certification Forester with Scienti		vstems. He has
•	been with SCS since 2008 and has conducted FSC F		•
	and surveillance audits in Brazil, Panama, Mexico,	•	
	Japan, New Zealand, Spain, and all major forest pro	· ·	
	States. He has conducted COC assessments in Ore		
	Mr. Meister has successfully completed CAR Lead	-	
	Auditor, and SA8000 Social Systems Introduction a	nd Basic Auditor	Training Courses.
	He holds a B.S. in Natural Resource Ecology and M.	anagement and a	B.A. in Spanish
	from the University of Michigan; and a Master of F	orestry from the	Yale School of
	Forestry and Environmental Studies.		
Auditor Name:	Mike Ferrucci	Auditor role:	SFI Lead Auditor
Qualifications:	Mike Ferrucci is the SFI Program Manager for NSF	- International St	rategic
	Registrations and is responsible for all aspects of the	ne firm's SFI Certi	fication programs.
	He is qualified as a RAB-QSA Lead Auditor (ISO 140		_
	Systems), as an SFI Lead Auditor for Forest Manage	ement, Procurem	ent, and Chain of
	Custody, as an FSC Lead Auditor Forest Manageme	ent and Chain of C	Custody, as a Tree
	Farm Group Certification Lead Auditor, and as a GI	HG Lead Auditor.	Mike has led
	Sustainable Forest Initiative (SFI) certification and	precertification re	eviews throughout
	the United States. He has also led or participated i	n joint SFI and Fo	rest Stewardship
	Council (FSC) certification projects in nearly one do	zen states and a	joint scoping or
	precertification gap-analysis project on tribal lands	-	
	also co-led the pioneering pilot dual evaluation of	the Lakeview Ste	wardship Unit on
	the Fremont-Winema National Forest.		
	Mike Ferrucci has 33 years of forest management		
	sustainable forest management planning; in certifi		•
	managed; in the application of easements for large	_	
	ecology, silviculture, and management of mixed sp		•
	regeneration and management of native hardwood		
	participated in assessments of forest management	•	~
	States, with field experience in 4 countries and 33		
	the Society of American Foresters for over thirty-fi		
	Auditor's Forum. Mike is also a Lecturer at the Yal		•
	Environmental Studies, where he has taught gradu		•
	management, harvesting operations, professional	torest ethics, priv	ate forestry, and
	financial analysis.		

1.2 Total Time Spent on Evaluation

A.	Number of days spent on-site assessing the applicant:	3.5
В.	Number of auditors participating in on-site evaluation:	2
C.	Additional days spent on preparation, stakeholder consultation, and post-site follow-up:	2
D.	Total number of person days used in evaluation:	9

1.3 Standards Employed

1.3.1. Applicable FSC-Accredited Standards

Title	Version	Date of Finalization
FSC-US Forest Management Standard	V1-0	July 8, 2010
All standards employed are available on the websites of F	SC International (<u>wv</u>	vw.fsc.org), the FSC-US
(<u>www.fscus.org</u>) or the SCS Standards page (<u>www.scsglob</u>	alservices.com/certi	fication-standards-and-program-
documents). Standards are also available, upon request,	from SCS Global Serv	vices (www.SCSglobalServices.com).

1.3.2. SCS Interim FSC Standards

Title	Version	Date of Finalization
SCS FSC Chain of Custody Indicators for Forest	V5-1	December 3, 2012
Management Enterprises		

This SCS Interim Standard was developed by modifying SCS' Generic Interim Standard to reflect forest management in the region and by incorporating relevant components of the Draft Regional / National Standard and comments from stakeholders. More than one month prior to the start of the field evaluation, the SCS Draft Interim Standard for the country / region was sent out for comment to stakeholders identified by FSC International, SCS, the forest managers under evaluation, and the National Initiative. A copy of the standard is available at www.scsglobalservices.com/certification-standards-and-program-documents or upon request from SCS Global Services (www.SCSglobalServices.com).

2 Annual Audit Dates and Activities

2.1 Annual Audit Itinerary and Activities

April 6, 2015 Chesapeake and Pocomoke State Forests

Opening Meeting: Introductions, client update, review audit scope, audit plan, intro/update to FSC and SCS standards and protocols, review of open CARs/OBS, final site selection

Site 1. P01 Sturges Creek, Tract 2 – Stand 15- first pine thinning started April 2013 but suspended work; started again and completed in September 2014 (70 square feet of basal area). Retention of hard-mast hardwoods. Minimal rutting and residual stem damage, and reasonable utilization were observed. BMPs to protect RTE species in adjacent power line right-of-way implemented to avoid negative impacts, primarily through designating log landings away from the area. Part of future Delmarva Fox Squirrel zone. Natural Heritage staff signed off on sale after conducting preliminary environmental review.

Site 2. WR10 Ruddick Tract, Stand 20 –first thinning; dry portions cut February 2014, and wetter sections done in September 2014. Confirmed that special sites (ESA 1, ESA 3, and an archeological site) were protected by buffering them from harvesting. Interviews with Citizens Advisory Committee (CAC).

Site 3. P02 Nazareth Church, Tract 7- Stand 8 – Pond Pine seed tree harvest was completed during the fall of 2014. Block #3 was inspected. The prescription had been for a clearcut with reserves, but this was changed to seed-tree harvest. During the harvest set up Parker Forestry (consultants) identified Pond Pine throughout the site and marked them for retention. Each retained tree has been entered as a point on the GIS.

Site 4. WR24 Johnson & Johnson, Stand 3- Planned aerial Herbicide Treatment on a site where hardwood control is needed to achieve stocking goals in a stand that had received a seed-tree regeneration treatment. Foresters have thoroughly assessed the site, mapped the presence of desirable oak sapling and sprouts, and designed a treatment plan to avoid these and to spray areas where undesirable maple and gum trees require control. Also reviewed documentation for and discussed the completed Wango Pine herbicide treatment.

Site 5. P04 Dividing Creek Tract 13 – Stand 8 – first thinning (formerly Dividing Creek Compartment #22) completed mid-January 2015. Residual stocking was 90 square feet of basal area per acre, and there were no issues with rutting or residual stand damage. Use of slash on skid trails to avoid rutting and compaction. Discussion of typical rotation ages, pre-commercial and commercial thinnings.

Site 6. WR 40 Dunn Swamp, Stand 94 – pre-commercial thinning of a planted stand on former farm land intended to develop forest cover to support water-quality improvement goals. A ditch running through the stand has had water control structures installed to slow water movement off site. Plantation has volunteer pine, cedar and hardwood and was overstocked, so a pre-commercial thinning was implemented targeting maple, gum, and pine.

Stop 7. Parker Forestry Services office to review and discuss records pertaining to:

- Safety and training
- Chemical Use
- Timbersales and Chain of Custody

April 8, 2015 Chesapeake State Forests

Sites 1, 2, and 3 are three of four main blocks of the Brookview Ponds Restoration project. The entire 873-acre Indiantown complex is former industrial pine plantation being restored with an emphasis on the Delmarva Bays (also known as Carolina Bays). In the 1970s the tract was cleared, tops and slash windrowed, most areas bedded and ditched, and all planted with Loblolly Pine, followed by chemical release. These treatments altered the vegetation and hydrology to the detriment of biodiversity. The project goal is to "contribute to the restoration of Carolina Bay marshes, rare and endangered species populations, and upland oak forest" by the commercial harvest of all pine and most hardwoods within 200 feet of the edges of the bays, thinning pine stands further away, and later herbiciding all trees within the bays, and then by implementing a regular program of prescribed burns.

Site 1. D14 Indiantown, South Quad – restoration harvest recently completed; work started in January 2014 halted after a few days because conditions were too wet, with some areas of rutting nearly reaching the CFP excessive threshold of 12-inces deep for more than 50 feet; the harvest resumed mid-July and was completed August 5, 2014. Objectives were considered met, with some larger undesirable hardwood trees left standing because loggers believed them to be oak trees. Use of prescribed fire likely should kill these trees as they are less tolerant than oaks to fire.

Site 2. D14 Indiantown, West Quad – restoration harvest recently completed; see harvesting details for Site 1 above. Reviewed a major portion of harvest area including the largest bay, which has some of the desired grasses already.

Site 3. D14 Indiantown, North Quad – restoration harvest completed 3 years ago, prescribed burn attempted but halted after small test burn because conditions were not suitable; goal is to burn in the fall of 2015 if conditions are suitable. Vegetative response met expectations, with dense growth of plant communities associated with Delmarva Bays (e.g., grasses, sedges, and other herbaceous plants), which was the goal. Burns are needed to control undesirable tree invasion of Bay and surrounding clearcut uplands, including undesirable hardwood seedling/sapling/stump sprouts (maple and gum) and volunteer Loblolly pine. Burns are also required to sustain Delmarva Bay plant communities, which are less tolerant of shade.

Site 4. Bennett Tract, second thinning completed in 2014 by Timber Harvest Inc. Stand planted in 1986 with significant amount of volunteer Loblolly, then herbicide release in 1989, resulting in a somewhat natural-looking pine stand. First thinning in 2002 was described as having somewhat wide corridors and not enough thinning between, and thus high stocking. The recent thinning lowered stocking to basal area of about 100, where the target was 90. Logging quality appeared excellent with no residual stem damage or rutting. Harvest took place during deer season with efforts to manage the interactions including investment in gravel and chips to provide alternate parking area for hunters.

April 9, 2015: Green Ridge State Forest

Office Discussions:

- Progress made on road work
- Complaints, training, and updates on forest inventory
- Citizens Advisory Committee: meets annually, very close working relationships between CAC and many of the ID Team Members
- Tours: Home Ground, work with colleges
- Outreach: Appalachian Forest Heritage Area, many others (see AWP).

Site 1. Poly Neil Road Silviculture Site – Sold, not started variable retention/ regeneration harvest covering 32 harvest acres, 54 managed acres. Reviewed harvest area access, layout including avoiding sensitive areas, selection of variable retention, assessment and presence of regeneration, and sale contract, including chain of custody requirements. Multiple species, size classes, and forms are retained for future timber value, biodiversity, and snags/ wildlife habitat.

Site 2. Zumbrun Overlook Recreation Site – This recently-completed recreation site includes a parking area, interpretive signs, a short, accessible trail, a viewing platform, and a vista created through a timber sale reviewed on a past audit. The interpretive signs are high quality and informative, including history, ecology, and forest management information. The site is very well constructed and maintained, links to the existing 12-mile mountain bike trail and the new Great Eastern Trail, and provides an opportunity for a new 2-mile circuit trail. Interviews with CAC members and security personnel.

Site 3. Diehl Shade Barren Restoration Site – The long-term restoration project and the more recent 35-acre Diehl Barren Burn Unit were reviewed. The burn objectives on this moderate to steeply-sloping site were met. Discussed challenges involved with the needed expansion of the prescribed burning program.

Site 4. Green Ridge Road Silviculture Site – This completed 15-acre regeneration/variable retention harvest was planned and implanted in ways to protect the adjacent Environmentally Sensitive Area (ESA) while salvaging infested Ash and regenerating the stand. Interviews with CAC members.

Site 5. Mertens Road Salvage Harvest Site. The harvest activity on this 25-acre salvage/regeneration site is nearly complete, with retention, regeneration, utilization, and site impacts all reviewed and found to be acceptable. This stand and others were severely damaged by a hail storm in 2011. Despite the urgency associated with needed salvage the project went through standard planning and review of the Annual Work Plan process while still being sold quickly by "flipping" the 2013 and 2014 AWPs.

Site 6. Gordon Road proposed culvert replacement, graveling and regarding. Inspected two locations where stream-crossing infrastructure is failing and replacement culverts are needed. Culverts are partially plugged, with some parts of roads failing due to overtopping of culverts. This area was identified prior to the 2013 AWP and the needed work described and approved in that plan, but funding has be challenging to obtain. The site is part of a larger project that was identified as high priority for repairs, but a project plan is pending the completion of higher priority work on other forests.

Site 7. Gordon Road, Black Sulfur Crossing- The stream-crossing here includes a culvert with headwalls constructed from railroad ties. The headwalls are crumbling, the culvert is partially-blocked, and water has crossed and begun to erode the road. The site is part of a larger project that was identified as high priority for repairs, but a project plan is pending the completion of higher priority work on other forests. Overflow ditches and culverts demonstrate evidence of frequent failure and replacement, as well as hydrological disconnectivity of streams on either side of the road.

April 10, 2015: Greenbrier State Park

Closing Meeting and Review of Findings (8:00am-9:30am): Convene with all relevant staff to summarize audit findings, potential non-conformities and next steps

2.2 Evaluation of Management Systems

SCS deploys interdisciplinary teams with expertise in forestry, social sciences, natural resource economics, and other relevant fields to assess an FME's conformance to FSC standards and policies. Evaluation methods include document and record review, implementing sampling strategies to visit a broad number of forest cover and harvest prescription types, observation of implementation of management plans and policies in the field, and stakeholder analysis. When there is more than one team member, team members may review parts of the standards based on their background and expertise. On the final day of an evaluation, team members convene to deliberate the findings of the assessment jointly. This involves an analysis of all relevant field observations, stakeholder comments, and reviewed documents and records. Where consensus between team members cannot be achieved due to lack of evidence, conflicting evidence or differences of interpretation of the standards, the team is instructed to report these in the certification decision section and/or in observations.

3. Changes in Management Practices

There were no significant changes in the FME's management system that affected conformance to FSC requirements. The FME expressed concerns over FSC's new chemical use requirements and its effects

on efforts to control invasive insect pests, especially during initial infestations. Staff completed training in in forest inventory, wild fire, fire equipment, and trail maintenance among other types. Records of training are maintained in personnel files. Several recreational and ecological restoration projects have been started or completed since the last audit.

4. Results of the Evaluation

4.1 Existing Corrective Action Requests and Observations

	Finding Number: 2014.1
Select one: Ma	ajor CAR Minor CAR X Observation
FMU CAR/OBS issue	ed to (when more than one FMU):
Deadline	Pre-condition to certification
	3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
ECC In diagram	State of the state
FSC Indicator:	
	justification): FME's management plans and supporting documents are based on
_	ations, many of which were ratified to comply with federal laws that require
	national treaties. For example, the Endangered Species Act is relevant to the gical Diversity. However, the FME has not conducted an analysis of international
	to determine applicability.
	equest (or Observation): FME should conduct an analysis of international binding
	rmine which are applicable to its management system so that it can ensure that
_	plans and operations comply with relevant provisions of said agreements.
FME response	The DNR-Forest has reviewed the USDA Forest Service International Programs
(including any	website in reference to international laws that govern or may govern forest
evidence	management on Maryland State Forests and have found that only the
submitted)	http://www.fs.fed.us/global/aboutus/policy/multi/bind.htm#1
	Legally Binding Agreements
	Although there is no single legally binding global convention that governs
	sustainable forest management, a number of legally binding agreements have an
	effect on the management of forest resources and trade of forest products. For
	the United States, becoming party to a convention is a two-step process. First, the
	President must sign the convention, and second, the Senate must ratify the
	convention into law.
	We are abiding by the <i>Convention on Biological Diversity</i> through our
	collaborative work with the DNR Natural Heritage Program (NHP), including our
	annual work plan review and ID Teams. Plus, our management plans are a
	reflection of our collaboration with key members of the NHP regional and headquarter staffs.
	neauquarter stairs.
	The Convention on International Trade in Endangered Species of Wild Fauna and

	Flora (CITES) was established to control the trade of endangered species. Again, our collaborative work with NHP, DNR Natural Resource Police (enforcement) and Maryland Department of Agriculture Ginseng Management Program (licensing and data collection). For example, in 2013, the DNR Secretary signed a policy the effectively eliminated ginseng harvests from all DNR lands as a result of information from NHP and licensing data from MDA.
	In addition, the FME contacted the MD Office of the Attorney General regarding international or global laws we must adhere to. Their email reply (Feb 10, 2015) is as follows, "I did a quick search of COMAR and the Natural Resources Articles and saw no mention of our abiding by international laws (which as "global laws" we would have to follow so I would have been surprised if there were such state code or reg. requirements).
SCS review	FME has completed its analysis in consultation with multiple sources and has demonstrated that it meets the intent of applicable international agreements through implementing its management system.
Status of CAR:	 X Closed Upgraded to Major Other decision (refer to description above)
	Finding North and 2044.2
	Finding Number: 2014.2
Select one:	jor CAR X Minor CAR Dbservation
FMU CAR/OBS issue	d to (when more than one FMU):
Deadline	Pre-condition to certification
	3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
	Other deadline (specify):
FSC Indicator:	FSC-US Indicator 1.6.a
Non-Conformity (or	justification): FME describes the importance of FSC to its management system and
is now subject to a la	w that requires that it maintain conformance to forestry certification
1	ever, FME does not have an explicit publicly available statement of commitment to
	conformance with FSC standards and policies.
	equest (or Observation): FME shall prepare a publicly available statement of
	age the FMU in conformance with FSC standards and policies.
FME response (including any	Language has been added to the DNR <u>Forest Certification</u> webpage to serve as, "an explicit publicly available statement of commitment to manage the FMU in

conformance with FSC standards and policies."

"As directed according to EXECUTIVE ORDER 01.01.2004.21 Enhanced Forestry Management on the Department of Natural Resources-Owned Forest Lands and the Natural Resources – Forest Preservation Act of 2013, the Department of Natural Resources shall confer with the Forest Stewardship Council and the Sustainable Forestry Initiative in order to determine the parameters of securing

FME's statement is as follows:

evidence

submitted)
SCS review

	forest certification of the State's efforts for the purpose of managing Maryland's
	State Forests in an environmentally responsible and sustainable manner."
	The statement of commitment fulfills this requirement.
Status of CAR:	X Closed
	Upgraded to Major
	Other decision (refer to description above)
	ther decision (rejer to description above)
	Finding Number: 2014.3
Select one:	jor CAR Minor CAR X Observation
	d to (when more than one FMU):
Deadline	
Deadille	Pre-condition to certification
	3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
	X Other deadline (specify): None
FSC Indicator:	FSC-US Indicator 1.6.c.
Non-Conformity (or	justification): FME is in the process of evaluating land acquisitions for incorporation
into the FMU. FME	does not have a formal process for informing the CB of significant changes in
ownership and/or sig	gnificant changes in management planning within 90 days of such change. Note
	defined what a significant change is.
	equest (or Observation): FME should consider developing a policy or procedure for
-	ertifying Body of significant changes in ownership and/or significant changes in
	ng within 90 days of such change.
FME response	After discussing what "significant ownership changes" and in ownership and/or
(including any	"significant management planning changes" with FME leadership, we have
evidence	decided that the threshold of 2,000 acres (total acres within the scope) will be our
submitted)	policy for when to contact FSC-US. The DNR Acreage Report is the official
	document for DNR Owned Lands Acreage. The 2014 report states there are
	202,679 acres within the state forest and Chesapeake Forest (includes Seth and
	Wicomico Demo Forests) designations. While this is not the most up-to-date
	numbers (state forest managers have more real-time data) it is the official data
	and one in which we can quickly check and reference for acreage changes.
CCC wastern	Link :: http://dnr.maryland.gov/land/stewardship/pdfs/currentacreagereport.pdf
SCS review	FME has created a policy that should allow stakeholders sufficient time to be
	informed of significant changes to the certificate scope. In discussion with FME
	staff, SCS clarified that the certification body must be contacted for any changes
Status of CAD:	to the scope of certification, significant or otherwise.
Status of CAR:	Closed
	Upgraded to Major
	Other decision (refer to description above)

	Finding Number: 2014.4
	ijor CAR
	d to (when more than one FMU):
Deadline	Pre-condition to certification
	3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
	Other deadline (specify):
FSC Indicator:	FSC-US Indicator 4.2.b.
	justification): Large-sale contracts reference safety requirements for both Eastern
	s. However, small-sale contracts, which are contracts for services valued at less
_	include safety requirements.
	equest (or Observation): Contracts or other written agreements shall include safety
requirements.	
FME response	The small-scale timber sale contract has been updated to reflect the language of
(including any	the larger contracts regarding safety requirements.
evidence	
submitted)	See <u>FS-310_REVISED_v1.8_CoC</u> - Timber Sale Agreement (Sales \$5,000 or less – by
	lum sum bid) (revised 7/28/14).
SCS review	Item 4 of the updated contract fulfills this requirement.
Status of CAR:	X Closed
	Upgraded to Major
	Other decision (refer to description above)
	, , , , , , , , , , , , , , , , , , , ,
	Finding Number: 2014.5
	ijor CAR Minor CAR X Observation
FMU CAR/OBS issue	d to (when more than one FMU):
Deadline	Pre-condition to certification
	3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
FSC Indicator:	Street St
	justification): According to 4.2.b, FME's employees and contractors must
• •	work environment. Migrant workers under the H-2B program were conducting tree
	ome workers on-site independently stated that they were nursing students.
	the job site was able to present evidence of certified First AID/CPR training.
Working conditions	and terms must comply with all applicable Federal, State and local employment
laws, including healt	h and safety laws. The audit team contacted the Maryland Department of Labor to
·	ID/CPR requirements for job sites, but did not receive a response.
	equest (or Observation): FME should investigate what the First AID/CPR
•	r employees of tree planting/TSI contractors and determine what corrective actions,
if any, are warranted	d.
FME response	From our research, we do not see where either the US Dept of Labor or the MD

(including any DLLR requires that Farm Labor Contractors (FLCs) be first aid or CPR trained. Our evidence reforestation contractor at Chesapeake Forest is a US Dept of Labor certified FLC. submitted) They are not aware of any requirement for first aid/CPR training. We did learn that the state of California does require first aid/CPR training for state of California FLCs and another planting contractor reports that some northern states (Idaho, Maine, Vermont and New Hampshire) require First Aid/CPR training for at least one member of the crew working in remote areas. The FCS Indicator 4.2.b asks that a safe work environment be demonstrated. As I mentioned below, the Chesapeake Forest contractor, Parker Forestry Service, contracts require that their TSI/tree planting sub-contractors be certified US Dept of Labor FLCs. It has been their observation that contractors have been in compliance with US Dept of Labor FLC safety and health requirements including: potable drinking water on site, safe transportation, and safety equipment when performing TSI work (hearing & eye protection, chaps, gloves). Also, the FME has been in contact with our forest tree nursery manager regarding this issue. His statement was, "The nursery labor contract specifies that the contractor(s) have to abide by all requirements of the Migrant Worker Protection Act. This includes working conditions, pay, vehicle transport etc. We do not deal with the daily details of this since we have hired a contractor to do so. Tree planting crews if in the country under H2-B would fall under these guidelines. The crew foreman would be the person to ask and not the individual tree planters." Plus, "If we do begin to exercise daily control over such issues we run the risk of changing our status to employer which then puts the onus of all the above on us." **SCS** review In addition to FME's response, its forestry contractor conducted research into its local pre-commercial thinning and herbicide contractors, as well as US Department of Labor's Farm Labor requirements (for which web search records were supplied). One pre-commercial thinning contractor sent records of First AID/CPR for all of its field workers, which were demonstrated to the audit team. The herbicide contractor sent procedures for handling spills, including those for treating exposed personnel. For example, the names of the nearest hospital and basic procedures on how to stabilize any exposed person were cited. US Department of Labor Farm Labor requirements include several health & safety provisions, but not necessarily First AID/CPR. The forestry contractor also did not find any requirements from the Maryland Department of Labor that discuss First AID/CPR. SCS concludes that based on the research into State law and the practices of individual contractors that risk of nonconformance to this indicator remains low for the time being. As such, closure is warranted. Status of CAR: | X | Closed Upgraded to Major Other decision (refer to description above)

	Finding Number: 2014.6
Select one:	jor CAR X Minor CAR Dbservation
FMU CAR/OBS issue	d to (when more than one FMU):
Deadline	Pre-condition to certification
	3 months from Issuance of Final Report
FCC Indicators	Other deadline (specify):
FSC Indicator: Non-Conformity (or	FSC-US Indicator 4.4.a and 4.4.d.
, · · ·	social impacts that covers the elements of indicator 4.4.a was not available.
4.4.a. A Sullillary Of	social impacts that covers the elements of indicator 4.4.a was not available.
4.4.d: Overall, FMF's	Timber Operations Order directs how the public consultation process is to be
	o indicator 4.4.d. While it states that the AWP is to include the Public Comments,
_	ew by the interdisciplinary team, it does not specifically state that a 30-day public
review is required.	
	aryland state forests' Sustainable Forest Management Plans all state that a 30-day
	s is required (SRSF pg 14, PGSF pg 16, GRSF pg 12). However, the Chesapeake
Forest/Pocomoke pla	
	equest (or Observation): A summary of social impacts that covers the elements of
indicator 4.4.a shall b	oe made available.
1 1 d. For public fore	sets consultation shall include the following companents:
	ests, consultation shall include the following components: ed and accessible methods for public participation are provided in both long and
	planning processes, including harvest plans and operational plans;
	cation is sufficient to allow interested stakeholders the chance to learn of upcoming
	s for public review and/or comment on the proposed management;
	e and affordable appeals process to planning decisions is available.
	corporate the results of public consultation. All draft and final planning documents,
_	data, are made readily available to the public.
FME response	To identify how the FME understands the social impacts of management activities
(including any	and are incorporating these into our management planning and operations, below
evidence	we address the various components of Indicator 4.4.a and have listed each
submitted)	component with our evidence following.
	To summarize these elements and how they are incorporated into our
	management:
	Archeological sites and sites of cultural, historical and community significance (on and off the CMU).
	on and off the FMU; ○ The FME GIS system is used to log all known archeological sites on
	FME lands under certification.
	The FME collaborates with Maryland Historical Trust on Project
	Review (internal and external proposals to alter or use DNR managed
	lands) to document new findings and to allow MHT review of
	proposals for any historical significance. MHT is also sent other

management documents such as the annual work plans for their review.

- Public resources, including air, water and food (hunting, fishing, collecting);
 - The Citizens Advisory Committee for each state forest is comprised of an 11-member team that formally represents a spectrum of forest interests. Each AWP is reviewed by the CAC and the general public (30-day online comment period) and a summary of those comments (along with DNR ID Team comments) become part of the final annual work plan for each state forest.
- Aesthetics;
 - See AWPs, SFMP and other internal review documents for evidence of forest buffers along public roads, riparian buffers, and forest retention.
- Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health;
 - Forest managers serve on a variety of local economic boards and regularly meet with local economic development agencies.
- Community economic opportunities;
 - A review of the Sustainable Forest Management Plans will show the importance of adding timber to the marketplace in support of local forest product companies. Even during economic slow periods when the private sector is not putting timber on the market, the DNR state forests continues to offer timber contracts.
 - The Meadow Mt Trail on Savage River State Forest is a collaborative effort in conjunction with Garrett County and Garrett Trails (business interests) to bring expanded biking opportunities to the region, which in part, include improved access to state forest lands. The forest manager regularly meets with these groups to gain feedback on how this project should develop.
- Other people who may be affected by management operations.
 - Recently several ORV trails were deemed unsustainable and were closed. It was decided by DNR leadership to review all DNR lands to determine if other sustainable sites could be used to add trails to the system. Three sites were forwarded from this process and one was on state forest land. A series of public meetings were held near the proposed sites to gather public information and sentiment regarding these proposals. Due to these efforts, two sites were abandoned and one on Savage River State Forest is currently in the planning stage. Also, as previously mentioned, the Citizens Advisory Committee is a group of advisors comprised to offer the forest manager insight on forest management specific to their area of interest and expertise.

4.4.d: Overall, FME's Timber Operations Order directs how the public consultation process is to be followed according to indicator 4.4.d. While it states that the AWP is to include the Public Comments, and outlines the review by the interdisciplinary team, it does not specifically state that a 30-day public review is required. Also the Western Maryland state forests' Sustainable Forest

	Management Plans all state that a 30-day public review process is required (SRSF pg 14, PGSF pg 16, GRSF pg 12). However, the Chesapeake Forest/Pocomoke plan does not.
	FME Response : The Sustainable Forest Management Plans for all five state forests under our certificate scope have been updated to reflect the entire three-step review process, plus, the DNR-Forest Service Timber Operation Order (Presale Work 10, page 11) has been revised to include this step to the process.
	Each of the specific SFMPs can be found online. The individual references will be under Section 11.2 Annual Work Plan Time Table.
SCS review	4.4.a: FME's summary addresses the topics of this indicator as specified in its
	response and was made available to SCS.
	4.4.d: SCS reviewed each SFMP for the update content and found that the timeline is included as stated in the FME's response.
Status of CAR:	X Closed
	Upgraded to Major
	Other decision (refer to description above)
	Finding Number: 2014.7
Select one: Ma	ior CAR X Minor CAR Observation
	jor CAR X Minor CAR Diservation d to (when more than one EMII):
FMU CAR/OBS issue	d to (when more than one FMU):
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FSC Indicator: Non-Conformity (or with variable retention habitat components expected from nature complexity. Live trees configuration of the designated for removand live oaks were not retained only in islant Corrective Action Reemployed, and during the harvest unit as designated for removant of the live oaks were not retained only in islant corrective Action Reemployed, and during the harvest unit as designated for removant of the live oaks were not retained only in islant corrective Action Reemployed, and during the harvest unit as designated for removant of the live of the	d to (when more than one FMU): Pre-condition to certification 3 months from Issuance of Final Report Next audit (surveillance or re-evaluation) Other deadline (specify): FSC-US Indicator 6.3.f (b), 6.3.g.1 and Appalachian Regional Indicator 6.3.g.1.a. ijustification): GR-02-13 (post-ice storm salvage harvest) and PGSF 34-3 (clearcut on) utilized even-aged silviculture. Management maintains, enhances, or restores and associated stand structures, in abundance and distribution that could be ally occurring processes, particularly in relation to vertical and horizontal es on these sites were not retained in a manner consistent with the proportion and natural disturbance regime. For example, live small diameter white oaks were wall where crown competition was not yet a significant factor in the salvage area; of well-distributed spatially in the clearcut with variable retention (live oaks were ds). In the Western Region, when even-aged systems are g salvage harvests, live trees and other native vegetation shall be retained within escribed in indicators, 6.3.f (b), 6.3.g.1 and Appalachian Regional 6.3.g.1.a. nts, future economic value of retained trees, and effects on desired regeneration

the audit teams. It has been our policy to follow this guidance, but it has been

(including any

evidence written in such a way as to allow flexibility to the forest manager, as necessary, to submitted) apply best silvicultural practices. In the sites specifically mentioned in the 2014 report, abundant retention was maintained in well-defined buffers and islands and is documented in our GIS management systems. The Appalachian Regional Indicator 6.3.g.1.a. Guidance specifically states that this is acceptable and that "in addition, desirable overstory and understory species may be retained outside of buffers or special zones." The emphasis on "may" in this guidance suggests that for former riparian buffers are preferred and in addition the manager can utilize other retention methods. Plus, "if stands have been degraded", which was certainly the situation at the Green Ridge State Forest site, less retention is acceptable for merchantability considerations. Guidance: Even-age silviculture is used only where naturally occurring species are maintained or enhanced. Retention within harvest units can include riparian and streamside buffers and other special zones. In addition, desirable overstory and understory species may be retained outside of buffers or special zones while allowing for regeneration of shade-intolerant and intermediate species consistent with overall management principals. Where stands have been degraded, less retention can be used to improve both merchantable and non-merchantable attributes. As for the Potomac Garrett State site, the forest manager is not afraid to push conventional methods to obtain desirable silvicultural goals. By maintaining retention in islands and riparian buffers and not throughout the main body of the harvest site, he not only avoided blow-down of isolated retention trees, but natural regeneration will benefit due to enhanced protection from deer browse. **SCS** review A more representative sample of harvest sites were visited in 2015, including one salvage harvest site and two regeneration/variable retention sites on Green Ridge State Forest. Retention was examined based on species, quality of individual trees selected for retention, diameter, and spacing. It was found that a variety of oak, pine, cherry, and maple species are retained in a configuration and density found on harvest sites. Where objectives were to release advanced regeneration, the audit team inspected sites for regeneration and found that oaks, maples, and tulip poplars were present and ready to respond to release. Other retention elements included shrubs (e.g., serviceberry, dogwood), snags, and down woody debris. More importantly, this year forest managers and technicians were able to consistently describe harvest types and objectives for each site (see response to OBS 2014.10). Status of CAR: X Closed Upgraded to Major Other decision (refer to description above)

Finding Number: 2	014.8
Select one: Major CAR Minor CAR Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline Pre-condition to certification	
3 months from Issuance of Final Report	
Next audit (surveillance or re-evaluation)	
FSC Other deadline (specify): FSC FSC-US Indicator 6.5.e.1 (Appalachian Regional indicators 6.5.e.1.a-g) and 6.5.e.2.	
Indicator:	
Non-Conformity (or justification): SMZ guidelines are provided in SFMPs for each state forest and	
actual SMZs are mapped in the GIS. FME prepared the Western Maryland Erosion and Sediment	
Control Standards and Specifications for Forest Operations in 2011 that contains SMZ widths based	on
the "50' + (4' * x%)" principle. For smaller slope %, such as those between the APP 1-10% and 11-2	0%
category, minimum widths depart from the minimum widths required by FSC. For larger slope %, F	ME's
SMZ widths exceed APP requirements. These SMZs are based on watershed studies and have been	
reviewed by the FME's hydrologist.	
	_
Minor variations from the minimum widths are permitted as long as the provisions of indicator 6.5.	
are met. FME has not sought a variance per these requirements, such as the requirement of input an independent expert in aquatic ecology or closely related field.	110111
Corrective Action Request (or Observation): FME shall either bring its SMZ widths into conformance	
with Appalachian Regional indicators 6.5.e.1.a-g or seek a variance per indicator 6.5.e.2. If the 6.5.	
option is selected, an independent expert in aquatic ecology or closely related field must be made	
available for consultation to the CB.	
FME August 2014: The Maryland state forests within the Appalachian Region have been	
response following the established rule of a 50-foot minimum buffer plus an additional four f	eet
(including width for each percentage of slope. For example, a ten percent slope would require	a a
any evidence 90-foot SMZ buffer (50+(10*4)). This guideline has been the Maryland standard since	ce
submitted) the early 1980s and is based on the following research:	
Trimble, George R., Jr.; Sartz, Richard S. 1957. How far from a stream should a loggi	ng
road be located? Journal of Forestry 55:339-341	
This research is given greater examination in the document referenced below and i	c
available online:	>
available offilitie.	
Filter Strip Widths for Forest Roads in the Southern Appalachians	
Lloyd W. Swift, Jr., USDA Forest Service, Southeastern Forest Experiment Station,	
Coweeta Hydrologic Laboratory, Otto, NC 28763	
webdoc >> http://coweeta.uga.edu/publications/397.pdf	
As the text describes, the Trimble/Sartz research established an acceptable stream	
buffer width to properly protect municipal watershed streams during forest harves	
This simple to remember formula established a base width at 50-feet and was incre	_

percent slope would establish a buffer of 50+(1*4) = 54' or ten percent slope 50 + (10*4) = 90'.

Maryland has completed BMP effectiveness studies and found these practices effective in preventing sedimentation of streams from forest harvesting practices. Also, the DNR Forest Service will be collecting further BMP effectiveness data over the next few years which will again include state forest harvest sites.

Forestry Best Management Practices In Maryland: Implementation and Effectiveness for Protection of Water Resources (2009)

webdoc >> http://www.dnr.state.md.us/forests/pdfs/MDForestBMPResults2006.pdf

One of the highlights from this research was that BMP compliance with water quality BMPs on State lands was 99%, higher than the statewide average (see Figure 11).

Evaluating the Effectiveness of Maryland's Best Management Practices For Forest Harvest Operations (1995)

webpage >> http://www.dnr.state.md.us/forests/mbmp/

A study of implementation of Maryland's BMPs by Maryland DNR - Forest Service (Koehn and Grizzel 1995) indicated that most loggers across Maryland followed these BMPs. This project took the next logical step, an attempt to determine whether Maryland's Best Management Practices, when used as specified, are effective in protecting water quality, i.e., that sediment, temperature and biological activity are only minimally impacted by forest harvest activities, and that the in-stream parameters measured in this study return to pre-harvest conditions relatively quickly. While there have been studies in other states which address the concern of adequacy of timber harvest BMPs (Adams et al.1995; Whipkey 1991) this is the first significant study done in Maryland, using Maryland BMPs in local conditions, with local logging contractors, and using relatively comprehensive and sophisticated monitoring and analysis techniques. This report documents the activities conducted during this four-year experiment, discusses the findings, and draws conclusions based on these findings.

webpage: http://www.dnr.state.md.us/forests/mbmp/mbmpfho1.html

Below is a table demonstrates the variations between the Maryland DNR SMZ widths and those prescribed in FSC Appalachian Regional indicators 6.5.e.1.a-g. Essentially, the DNR guidelines offer a progressive buffer width that increases relative to the slope while the FSC prescription is a stepped system, widening at certain slope intervals. Based on research DNR has completed specific to our conditions, we have found the 50+4 formula to be effective in preventing sediment from entering streams during a forest harvest. Also, this formula is easy to remember for foresters responsible for planning a forest harvest near the SMZ and for logging operators to implement since it has been in place for many years and part of our logger education program.

A case could be made that while the effectiveness of the DNR SMZ guidelines have

proven to be effective and that the only area of deficiency (compared to the FSC rule) would be on the lower grade slopes (1-7 and 11 percent) of perennial streams (not intermittent streams) where water is far less likely to move sediment into a stream course. As for the higher percent slopes the DNR SMZ width far exceeds that of the FSC recommendation and the DNR SMZ guidelines offer greater stream protection than the FSC formula.

Harvesting Within the SMZ

The FSC guidance for the most restrictive scenario (intermittent/high-quality waters) does not allow any harvesting within the 25-foot inner SMZ, while the DNR guidance has a 50-foot no-cut buffer. While the DNR guidance does not distinguish between an intermittent and perennial stream, FSC would allow single-tree or small group selection within the inner SMZ of non-high-quality intermittent streams where DNR does not.

Revised Best Management Plan guidelines for forest harvest operations have been drafted (currently in review) that would adopt a less restrictive 50+2 rule across the state. However for DNR state forest operations, it has been decided to maintain the more protective 50+4 rule.

FSC 2014.7		perennial			intermittent		
slope%	DNR	FSC	diff	diff%	FSC	diff	diff%
0	50	80	30	60	40	10	(20)
1	54	80	26	48	40	14	(26)
2	58	80	22	38	40	18	(31)
3	62	80	18	29	40	22	(35)
4	66	80	14	21	40	26	(39)
5	70	80	10	14	40	30	(43)
6	74	80	6	8	40	34	(46)
7	78	80	2	3	40	38	(49)
8	82	80	(2)	(2)	40	42	(51)
9	86	80	(6)	(7)	40	46	(53)
10	90	80	(10)	(11)	40	50	(56)
11	94	100	6	6	50	44	(47)
20	130	100	(30)	(23)	50	80	(62)
21	134	130	(4)	(3)	60	74	(55)
30	170	130	(40)	(24)	60	110	(65)
31	174	135	(39)	(22)	70	104	(60)
40	210	135	(75)	(36)	70	140	(67)
41	214	165	(49)	(23)	80	134	(63)

The diff and diff% table figures indicate FSC vs DNR where a figure in black indicates FSC exceeds DNR and red where FSC is less than DNR.

MD DNR contacted Dr. Michael Aust, Professor of Forestry at Virginia Tech, as an

	independent authority. He has read the attached documentation and is willing to support our case for this variance request.			
	support our case for this fariance request.			
	MD DNR conducted a DD BMP evaluation from 2003-2005, the results of which can be			
	found here: http://www.dnr.maryland.gov/forests/pdfs/MDForestBMPResults2006.pdf.			
	MD DNR is currently repeating the study and has just started data collection. Another MD study in the Piedmont did more evaluation of in-stream conditions and benthic			
	community, using standard MD BMPs. http://www.dnr.state.md.us/forests/mbmp/			
SCS review	September 2014: SCS interviewed Dr. Aust on September 19, 2014. Dr. Aust's research			
	focuses on the effectiveness of stream buffer widths in controlling sediment deposition			
	into streams and BMP effectiveness. In relation to the topic of stream buffer widths, he			
	has found in peer-reviewed research in West Virginia and other Appalachian States that			
	buffers for the slope ranges cited in the CAR, that a 25 ft. buffer is as effective in terms			
	of sediment control. One study compared 25 ft. buffers no-cut to 50 ft. buffers no-cut,			
	and 50 ft. buffers that were thinned, and showed no significant difference on areas of 50-100% slope. Dr. Aust provided the citation for a current paper on this topic, which			
	builds upon past research in this region (Lakel <i>et al.</i> 2010. Sediment Trapping by			
	Streamside Management Zones of Various Widths after Forest Harvest and Site			
	Preparation. Forest Science, Volume 56, Number 6, December 2010, pp. 541-551(11)).			
	Given that all of MD DNR's buffer widths have a minimum of 50 ft., MD DNR is at low			
	risk for failure to provide equivalent or greater protection than the minimum FSC buffer			
	width. In fact, in most cases, MD DNR's minimum buffer widths exceed the minimum			
	FSC minimums. More importantly, as long as road and skid trail BMPs are being			
C	adhered to, the current buffer widths should remain effective.			
Status of CAR:	Closed			
CAN.	Upgraded to Major			
	Other decision (refer to description above)			
	Finding Number: 2014.9			
[
Select one:	Major CAR Minor CAR Observation			
	S issued to (when more than one FMU):			
Deadline	Pre-condition to certification			
	3 months from Issuance of Final Report			
	Next audit (surveillance or re-evaluation)			
	Other deadline (specify):			
FSC Indicator:				
	ity (or justification):			
	MPs contain justification for chemical use in certain situations; however, not all situations			
of chemical pe	with explicit justification. Written strategies have not been developed that justify the use			
oi chemical pe	SHUICS.			
6.6.d: Written	prescriptions are not prepared per the requirements of indicator 6.6.d. Written			
	prescriptions prepared by the FME do not contain all provisions (both Regions). In the Eastern Region,			
	the audit team observed that when a contractor applies chemicals, a partial prescription is prepared in			

the care of aerial app	olications.		
Corrective Action Request (or Observation):			
6.6.b: FME shall prov	vide justification for chemical use and develop a written strategy that justifies the		
	icides per indicator 6.6.b.		
6.6.d: FME shall ensu	ure that its chemical use prescriptions address the provisions of indicator 6.6.d.		
FME response	6.6.b: "The Maryland Department of Agriculture is responsible for regulating the		
(including any	sale, use, storage, and disposal of pesticides and for enforcing the Maryland		
evidence	Pesticide Applicators Law. MDA is responsible for establishing guidelines and		
submitted)	requirements for the application of pesticides, the certification of pesticide		
	applicators and the licensing of businesses to ensure that pesticides are applied		
	properly by competent individuals."		
	(Source: MDA website http://mda.maryland.gov/plants-pests/Pages/Pesticide-		
	Applicator-Certification-and-Business-Licensing-Requirements.aspx)		
	As such, the FME is subject to State law and regulations including reporting of		
	pesticide storage and use to Maryland Department of Agriculture. However, to		
	follow the additional requirements of FSC Indicator 6.6.b, the FME will require the		
	FSC Guide: To integrated pest, disease and weed management in FSC certified		
	forests and plantations (FSC Technical Series, No. 2009-001) to be reviewed by		
	each state forest manager and the Core Decision Key (Figure 1, page 16), the		
	Pesticide Decision Key (Figure 2, page 17) and Decision Recording Sheet (Figure 3,		
	page 18) be attached to each pesticide use report with the latter having been		
	completed by the state forest staff or contractor.		
	6.6.d: A <i>Pesticide Use Tracking Form</i> was been modified to include all the		
	requirements of Indicator 6.6.d. See Auditor Dropbox folder.		
SCS review	SCS reviewed the updated guidelines for 6.6.b and found that they meet the		
	requirements. The new form fulfills the requirement to prepare a prescription		
	and consider alternatives to chemical use.		
Status of CAR:	X Closed		
	Upgraded to Major		
	Other decision (refer to description above)		
	Finding Number: 2014.10		
Select one:	jor CAR Minor CAR X Observation		
FMU CAR/OBS issue	d to (when more than one FMU):		
Deadline	Pre-condition to certification		
	3 months from Issuance of Final Report		
	Next audit (surveillance or re-evaluation) Next audit (surveillance or re-evaluation) None		
FCC In diagta	— Guier dedamie (speciny): None		
FSC Indicator:	FSC-US Indicator 7.1.h and 7.1.l.		
Non-Conformity (or			
/.1.h: FME has a non	aconformance to some indicators of C6.6. If chemicals are used, the management		

plan must describe what is being used, applications, and how the management system conforms to Criterion 6.6. FME's chemical use strategy may change as a result of the nonconformance, which may require an update to sections of the management plan.

7.1.l: FME has developed its own silvicultural terms in both the Eastern and Western Regions. In certain cases, these depart from commonly used definitions. In the Western Region, staff used the terms "clearcut with variable retention," "variable retention," and "second step of a shelterwood" for the same harvest area. In the Eastern Region, the seed-tree system in use for pond pine restoration does not include a seed-tree removal step (i.e., the seed-trees are retained). However, the Annual Work Plan 2014 for the Eastern Region provides a definition for the FME's seed-tree harvest system. Such definitions are not provided for the Western Region.

Corrective Action Request (or Observation):

- 7.1.h: FME should update the management plan to include an explanation of how the management system conforms to Criterion 6.6.
- 7.1.l: FME should include a description of commonly used silvicultural systems of the Western Region in the management plan.

FME response (including any evidence submitted)

7.1.h: The DNR-Forest Service Timber Operation Order (Submittal of Annual Work Plan, page 6) has been revised to require Pesticide Use as part of the AWP sections.

Also, Sustainable Forest Management Plans will be updated to include a Chemical Use section, as has the Chesapeake Forest Sustainable Forest Management Plan (page 60). See text below.

Chemicals Use

No products on the FSC list of Highly Hazardous Pesticides will be used (see FSC-POL-30-001 EN FSC Pesticides policy 2005 or most recent equivalent) unless a derogation has been successfully awarded. The Pesticide Use Tracking Form will be used to document the identification of an area to be treated, the procedures that will be followed and who will be doing the application, including their qualifications.

The FSC Guide: To integrated pest, disease and weed management in FSC certified forests and plantations (FSC Technical Series, No. 2009-001) to be reviewed by the state forest manager and the Core Decision Key (Figure 1, page 16), the Pesticide Decision Key (Figure 2, page 17) and Decision Recording Sheet (Figure 3, page 18) attached to each pesticide use report with the Decision Recording Sheet having been completed by the state forest staff or contractor.

All pesticides used to control pests and competing vegetation are used only when and where non-chemical management practices are: a) not available; b) prohibitively expensive, taking into account overall environmental and social costs, risks and benefits; c) the only effective means for controlling invasive and exotic species; or d) result in less environmental damage than non-chemical alternatives. If chemicals are used, the forest manager will use the least environmentally damaging formulation and application method practical.

	As opportunities are available, the state forest will employ and encourage the creation and maintenance of habitat that discourages pest outbreak; that encourages natural predators; will work with cooperating agencies to evaluation pest populations and control options; the diversification of species composition and structure; use of low impact mechanical methods; use of prescribed fire; and the use of longer rotations.
	Chemicals and application methods are selected to minimize risk to non-target species and sites under the guidance of cooperating agencies such as Maryland Department of Agriculture and DNR Natural Heritage Program.
	Whenever chemicals are used, the Pesticide Use Tracking Form will be used to prepare a written prescription to describe the site-specific hazards and environmental risks, and the precautions that workers will employ to avoid or minimize those hazards and risks, and includes a map of the treatment area.
	Chemicals are applied only by appropriately trained and licensed workers according to State requirements.
	When chemicals are used, the effects are monitored and the results are used to determine the measure of success and if treatment modifications can be employed, such as reduced application rates. Records are kept according to State requirements.
	7.1.l: Terminology can be a subjective practice, including its jargon, for almost any profession. The Society of American Foresters' <u>Dictionary of Forestry</u> is the definitive guide for of forestry terminology. To learn more about its purpose and genealogy, go to the <u>About Page</u> . To assist with the use of consistent and standard terms used in the DNR-Forest Service annual work plans and subsequent management documents, this source will be used as our guide. To effectively offer this guidance to the public when reviewing the state forest management online, we have provided a reference to the Dictionary of Forestry on our <u>Maryland's State Forest</u> webpage with the following statement:
	"A more complete review of terms used in the State Forest annual work plans and Sustainable Forest Management Plans can be found online through use of the Dictionary of Forestry ." DOF URL :: http://www.dictionaryofforestry.org
SCS review	For 7.1.h, only the Chesapeake SFP has been updated with the new language. Other plans will be updated this year. For 7.1.l, SCS confirmed that the Dictionary of Forestry is on the FME's webpage and is accessible to staff.
Status of CAR:	X Closed Upgraded to Major Other decision (refer to description above)

	Finding Number: 2014.11		
Select one:	jor CAR X Minor CAR Observation		
FMU CAR/OBS issue	d to (when more than one FMU):		
Deadline	Pre-condition to certification		
	3 months from Issuance of Final Report		
	Next audit (surveillance or re-evaluation)		
	Other deadline (specify):		
FSC Indicator:	FSC-US Indicator 7.1.p and 7.1.q.		
Non-Conformity (or	justification):		
and techniques empl explanation is provid logging equipment" a	nent plan does not describe and justify the types and sizes of harvesting machinery loyed on the FMU to minimize or limit impacts to the resource. A partial led in the SFMP for the Eastern Region; however, terms such as "conventional are not defined and/or described. An example of "shovel-logging" is provided for nt. No descriptions and justifications are provided in the management plans for		
7.1.q: Annual Work Plans, or other site-specific plans, do not clearly describe the relationship of planned management activities to objectives and desired outcomes defined in the SFMPs. A review of AWPs for both the Eastern and Western Regions confirmed that such relationships are not explicitly stated.			
Corrective Action Re	equest (or Observation):		
	nent plan shall describe and justify the types and sizes of harvesting machinery and		
techniques employed	d on the FMU to minimize or limit impacts to the resource.		
T	Plans, or other site-specific plans, shall clearly describe the relationship to ed outcomes defined in the SFMPs.		
FME response	The Sustainable Forest Management Plans for all five state forests under our		
(including any	certificate scope have been updated to include a Forest Harvesting Equipment		
evidence	section. Based on the style of the SFMP document, the following text was placed		
submitted)	accordingly:		
	Forest Harvesting Equipment		
	When planning a forest harvest, the forest manager should consider the soils, weather, seasonal restrictions, necessary harvesting equipment and other factors that may influence successfully harvesting the site.		
	In-woods equipment used on forest harvest operations may include: whole tree chippers, processors, feller-bunchers, grapple skidders, cable skidders, cut-off saws and forwarders.		
	Normally, bidding on forest harvest contracts are not restricted or limited by the equipment available to bidders. This is to maintain competitive fairness to all sized operations. However, forest harvest operations are closely monitored by the state forest staff to ensure compliance with the contract and use of Best		

If necessary, the state forest manager can restrict the type of machinery required or allowed on the harvest site. The state forest manager has the authority to temporarily close a forest harvest operation if the conditions become too wet to prevent excessive rutting and damaging of forest soils. Seasonal restrictions may apply during late winter and early spring as the frozen soils begin to thaw. Certain sensitive areas may require specialized equipment such as dual-wheeled skidders, high floatation tires or other specialized equipment.

—— Placement ——

To attempt to minimize the disturbance of the remainder of the SFMP, the above "Amended Language" has been placed in following document locations.

- GRSF 5.7.1 Forest Harvesting Equipment
- SRSF 5.8 Forest Harvesting Equipment
- PGSF 5.7.9 Forest Harvesting Equipment
- Pocomoke State Forest 5.18.1 Forest Harvesting Equipment
- Chesapeake Forest 5.7 Forest Management Activities (created additional heading, Forest Harvesting Equipment)

7.1.q: In reference to major forest management and conservation themes governing state forest management as found in each of the Sustainable Forest Management Plans, the following text will be added to the annual work plans under the section Annual Work Plan Summary.

All projects and proposals within this Plan have been developed to meet one or more of the Land Management Guidelines and Objectives as seen in the Potomac-Garrett State Forest Sustainable Forest Management Plan including:

Forest Economy - management activities with a purpose to maintain an economically sustainable forest and contribute to the local economy through providing forest-related employment and products.

Forest Conservation - management activities with a purpose to protect significant or unique natural communities and elements of biological diversity, including Ecologically Significant Areas, High Conservation Value Forests and old growth Forests. Old growth forest management serves to restore and/or enhance old growth forest structure and function.

Water Quality - management activities designed to protect or improve ecological functions in protecting or enhancing water quality.

Wildlife Habitat - management activities with a purpose to maintain and enhance the ecological needs of the diversity of wildlife species and habitat types.

Recreation and Cultural Heritage - management activities with a purpose to maintain and enhance areas that serve as visual, public camping, designated trails, and other high public use areas.

SCS review

7.1.p: SCS verified that the respective sections of each State Forests' management

	plan were updated in response to this finding. 7.1.q: This text is ready to be inserted into the next year's AWPs since the latest AWPs were worked on prior to
	this CAR.
Status of CAR:	Closed
	Upgraded to Major
	Other decision (refer to description above)
	Finding Number: 2014.12
Select one: Ma	jor CAR
	d to (when more than one FMU):
Deadline	Pre-condition to certification
	☐ 3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
	X Other deadline (specify): None
FSC Indicator:	FSC-US Indicator 7.4.b.
• ' '	justification): FME makes draft management plans, revisions and supporting
	y accessible for public review and comment prior to their implementation via the
	sses public comments and modifies the plans to ensure compliance with FSC
•	nce reviewed includes draft documents and plans that were modified after
	ewed. All comments from the interdisciplinary team and the public are included in
	NPs; however, a clear explanation as to how the comments were considered is not
provided to stakehol	
	equest (or Observation): FME should consider providing an explanation as to how
•	re considered in the modification of management plans (e.g., SFMPs, AWPs).
FME response	As part of the 30-day public review and comment period, we issue a media
(including any evidence	release across the state with the details of how the public can affect forest
	management in their state. Experience has taught that often the comments are vague and too general to decipher clear management plan revisions. We include
submitted)	in that media announcement the following statement:
	in that media announcement the following statement.
	"Each proposal is accompanied with a description, field data summary, objective
	and a map of the vicinity. Comments should reference the specific forest work plan
	with a page and item number so that the forest experts can understand and
	properly utilize the participant's input. Overly general or vague comments may
	make be difficult to accurately interpret."
	, ,
	Also, the annual work plans have a summary of comments and actions taken in
	response to the three-part review process. The following is an example for the
	Potomac Garrett State Forest FY 2015 annual work plan, page 53.
	WELLES TO PERSON AND ADDRESS OF THE PERSON A
	Wildlife Habitat Improvement Proposals
	Comp. 16 Stand 21
	Wildlife Opening / Thinning Proposal
	ID Team Comments: Wildlife biologist suggested, where possible, leave the few

	trees with low hanging branches as they provide good winter cover.
	Advisory Board Comments: No specific comments or concerns.
	Public Comments: Public Comments: No comments received.
	• Final Proposal: Edited to note retention of trees with low hanging branches for
	winter cover, and possibly replanting 2-3 rows of conifers along this new edge to
	further "soften the edge" and replace winter cover values.
SCS review	Specifically, the "Final Proposal" section may include an explanation of how public
	comments were incorporated into the plan (or not), as confirmed through
	interviews with FME staff.
Status of CAR:	X Closed
	Upgraded to Major
	Other decision (refer to description above)
	Cinci accision (rejer to acscription above)
	Finding Number: 2014.13
	jor CAR
	d to (when more than one FMU):
Deadline	Pre-condition to certification
	3 months from Issuance of Final Report
	Next audit (surveillance or re-evaluation)
	Other deadline (specify):
FSC Indicator:	FSC-US Indicator 8.2.d.3
Non-Conformity (or	justification): FME conducts many socioeconomic analyses and monitoring activities
	with other departments within the DNR and other state or federal agencies.
However, a formal m	nonitoring system that addresses the components of indicator 8.2.d.3 has not been
	imple, FME has not defined which monitoring activities currently conducted are
	vement of its mission and socioeconomic objectives.
Corrective Action Re	equest (or Observation): FME shall monitor relevant socioeconomic issues (see
Indicator 4.4.a), inclu	uding the social impacts of harvesting, participation in local economic opportunities
(see Indicator 4.1.g),	the creation and/or maintenance of quality job opportunities (see Indicator 4.1.b),
and local purchasing	opportunities (see Indicator 4.1.e).
FME response	The FME monitors relevant socio-economic issues as referenced in Indicators
(including any	4.4.a, 4.4.g, 4.4.b and 4.4.e through a series of regular, normal activities and
evidence	through involvement in other social-economic opportunities with other agencies
submitted)	and interest groups. It has been our philosophy that this is best performed in not
·	only through larger public forums (e.g. Mapping a Sustainable Forestry Strategy
	for Maryland), but also in the normal, daily engagements, contacts, relationships
	and organizational structures.
	Monitoring State Forest Issues Important to Maryland
	The document Mapping a Sustainable Forestry Strategy for Maryland: Report on
	the Public Engagement Process is a summary of a process to gain insight to the
	interests of an interested cross-section of Maryland.
	"During 2009, a multi-stakeholder partnership led by the Harry R. Hughes Center
	for Agro-Ecology and the Maryland Department of Natural Resources - Forest

Service developed a plan for obtaining public input in identifying key issues and strategies for sustaining forests and forestry in Maryland. The public engagement plan included a public survey of Maryland's forestry leaders and other interested parties, five listening sessions held throughout the State in June 2009, and a Statewide Forestry Summit held in October 2009, in Linthicum, Maryland. The public engagement process resulted in the identification of four issue areas and for each issue, strategies and recommended actions. Strategies and recommended actions are both presented in order of priority with the highest priority first."

Document URL >>

http://dnr.state.md.us/forests/pdfs/sas/ForestrySummitReport.pdf

Several of the key issues and recommended actions identified the public's interest in DNR managed State Forests. For example, Issue 1. Maintaining Viable Forests and a Viable Forest Industry in Maryland, Priority 1: Inventory and manage Stateowned forests as sustainable working forests.

Below is a summary of relevant findings.

Strategy 1.1: Inventory forests that have high environmental, economic and social value at the landscape scale and adjust management accordingly.

RECOMMENDED ACTIONS:

Priority 1:

Inventory and manage State-owned forests as sustainable working forests.

- Inventory all forests.
- Review forest management plans on public lands and ensure that management objectives reflect diverse needs and values; while we argue over what to do about forests, we are losing them.
- Manage State forests with science instead of politics.
- Manage forests under a comprehensive watershed management plan that includes public and private lands.
- Resist pressure on State lands to become locations for commercial enterprises like ski resorts rather than working forests.

Priority 3:

Increase the amount of certified forest land, both public and private.

- Certify State-owned lands to enhance credibility and increase supply of certified products.
- Encourage the use of all major forest certification schemes in State building projects.
- Support umbrella and aggregation programs that allow owners of smaller forest land to share the cost of certification.
- Develop series of indicators for a sustainable forest at the State and large landscape level.

Monitoring Forest Recreation Interests

Maryland Land Preservation and Recreation Plan 2014-2018

Doc URL :: http://www.dnr.state.md.us/land/stewardship/LPRP_2014-2018.asp As stated in the Executive Summary:

"The Maryland Land Preservation and Recreation Plan is a framework for state, county, and local outdoor recreation planning initiatives. This plan has a strong

focus on planning and design for access by people of all abilities, and on encouraging enjoyment and stewardship of Maryland's natural resources, parks, trails, and cultural places. This document presents a clear, concise vision for the next five years. Preserving and enhancing Maryland's outdoor resources corresponds with broader state and national efforts to balance outdoor recreation land use with natural and cultural resource protection."

The FME staff was involved in the development of this effort by serving on the Technical Advisory Committee. While many the resulting Strategies and Actions

The FME staff was involved in the development of this effort by serving on the Technical Advisory Committee. While many the resulting Strategies and Actions were specific to state forests, see below, many others would involve state forest opportunities.

- Work with academic partners in Maryland to conduct Forest Economic Impact Study to show the importance of our state forests, concurrently with carrying capacity studies on overused lands as identified by DNR staff.
- Create connections between trails within Maryland state parks and forests as well as between state, city, county, and federal trail systems.

Components of Monitor Relevant Socioeconomic Issues

FSC Indicator 4.4.a The forest owner or manager understands the likely social impacts of management activities, and incorporates this understanding into management planning and operations.

- Archeological sites and sites of cultural, historical and community significance (on and off the FMU;
- o The FME GIS system is used to log all known archeological sites on FME lands under certification.
- o The FME collaborates with Maryland Historical Trust on Project Review (internal and external proposals to alter or use DNR managed lands) to document new findings and to allow MHT review of proposals for any historical significance. MHT is also sent other management documents such as the annual work plans for their review.
- Public resources, including air, water and food (hunting, fishing, collecting); o The Citizens Advisory Committee for each state forest is comprised of an 11-member team that formally represents a spectrum of forest interests. Each AWP is reviewed by the CAC and the general public (30-day online comment period) and a summary of those comments (along with DNR ID Team comments) become part of the final annual work plan for each state forest.
- Aesthetics;
- o See AWPs, SFMP and other internal review documents for evidence of forest buffers along public roads, riparian buffers, and forest retention.
- Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health;
- o Forest managers serve on a variety of local economic boards and regularly meet with local economic development agencies.
- Community economic opportunities;
- o Cheryl DeBerry, is a member of PGSF CAC is works at the Garrett County Office of Economic Development
- o A review of the Sustainable Forest Management Plans will show the importance of adding timber to the marketplace in support of local forest product companies. Even during economic slow periods when the private sector is not putting timber

on the market, the DNR state forests continues to offer timber contracts. o The Meadow Mt Trail on Savage River State Forest is a collaborative effort in conjunction with Garrett County and Garrett Trails (business interests) to bring expanded biking opportunities to the region, which in part, include improved access to state forest lands. The forest manager regularly meets with these groups to gain feedback on how this project should develop.

- Other people who may be affected by management operations.
- Recently several ORV trails were deemed unsustainable and were closed. It was decided by DNR leadership to review all DNR lands to determine if other sustainable sites could be used to add trails to the system. Three sites were forwarded from this process and one was on state forest land. A series of public meetings were held near the proposed sites to gather public information and sentiment regarding these proposals. Due to these efforts, two sites were abandoned and one on Savage River State Forest is currently in the planning stage. Also, as previously mentioned, the Citizens Advisory Committee is a group of advisors comprised to offer the forest manager insight on forest management specific to their area of interest and expertise.

FSC Indicator 4.1.g The forest owner or manager participates in local economic development and/or civic activities, based on scale of operation and where such opportunities are available.

- o State Forest managers have worked with Garrett County Office of Tourism and Economic Development to promote natural resource and recreational values that make the county attractive to businesses
- o State Forest managers serve on the Appalachian Forest Heritage Area board o State Forest managers have serviced on the Leadership Allegany. This is a 9-month program put on each year organized by the Chamber of Commerce. Its function is to promote networking with business and civic leaders in the county as well as participation in local economic and social services development.
- o State Forest managers have served as a member of a team assembled for Allegany County to attend a week long course focused on "Asset Based Economic Development For Rural Areas
- o State Forest managers meet monthly with the Mountain Maryland Gateway to the West Heritage Area. The goal is to integrate our cultural/natural/historical resources with others in the county to improve the cultural heritage tourism in the county

Indicator 4.1.b Forest work is offered in ways that create high quality job opportunities for employees.

o Actually, working within a state government system that is focused on creating local employment opportunities while at the same time trying to reduce government costs due to budgets and slumping state revenues. This is a difficult task and not largely within the responsibility and ability of the FME to affect change in this regard. The truth is, that it is often difficult to attract and keep talented people in this business environment.

Indicator 4.1.e The forest owner or manager provides work opportunities to qualified local applicants and seeks opportunities for purchasing local goods and

services of equal price and quality.

o The FMEs timber contract bidding procedure includes sending invitations to bid on State Forest timber sale contracts sent to licensed, local Forest Products Operators which supports work opportunities for local businesses and families. o Our procurement policies require competitive bidding on purchases over \$2,500 which removes discriminating business practices, allowing equal opportunities for businesses of all sizes to win local work. This includes not only timber harvesting but also herbicide and fencing work associated with silvicultural plans. These are bid among local, qualified contractors.

o Other examples include repairs of automotive fleet and heavy equipment carried out at local garages.

o Seasonal positions, though advertised state wide, often allows employment opportunities for revolving seasonal and contractual labor force.

Monitoring Through Local Representatives

As stated in the FMEs guidance documents, the Sustainable Forest Management Plans and Timber Operation Order, each state forest has a Citizens Advisory Committee assigned to offer advice on relevant socio-economic issues particular to that state forest. Each CAC has a unique membership but with the assigned role across a spectrum of interests.

The Timber Operation Order states, "It is then the responsibility of the land unit manager to submit the proposed Annual Work Plan to the Citizens Advisory Committee (CAC) for review and comments. A meeting will be scheduled at the convenience of the Citizens Advisory Committee and land manager after the field review by the ID Team has been completed. Comments from the CAC will be submitted to the land manager.

The Citizens Advisory Committee meet with the state forest manager at least twice a year and provides an opportunity for review by individuals with a working familiarity of the forest, representing various interest areas. Interest areas represented on the committee include the following:

- recreational users,
- fishermen,
- hunters,
- ecologists,
- wildlife.
- conservationists,
- forestry professionals,
- recreation professionals,
- timber interests,
- · economic interests, and
- youth representation

Appointments to the committee are made by the State Forester/Director. All members of the existing committee are asked to make nominations for consideration of new members as vacancies occur. While the Secretary makes all appointments, consideration will emphasize retention of a diverse committee make-up representing the variety of advocacy groups, user groups and professional disciplines interested in management of the forest.

	Primary objectives of this step include the following:			
	1. Ensure that the proposals meet the needs of as many interest areas as possible			
	and contain provisions that make the plan sensitive to the concerns of all user			
	groups.			
	2. Follow-up review of all interdisciplinary reviews to eliminate any oversights, or			
	clarify misunderstandings.			
SCS review	FME has prepared a summary of its social impacts monitoring activities and			
	results in response to this finding, which is consistent with achieving its objectives.			
	Through use of the Citizen Advisory Committees and other informal (e.g., Forest			
	Summits) and formal (e.g., recreational trail user counts) monitoring as described			
	in the response, FME obtains information on the social impacts of its			
	management activities.			
Status of CAR:	X Closed			
	Upgraded to Major			
	☐ Other decision (refer to description above)			
	Finding Number: 2014.14			
Calact ana. X Ma				
	•			
	d to (when more than one FMU):			
Deadline	X Pre-condition to certification			
	3 months from Issuance of Final Report			
	Next audit (surveillance or re-evaluation)			
	Other deadline (specify):			
FSC Indicator:	FSC-US Indicator 8.5.a.			
	justification): Partial monitoring results are made available for the Chesapeake			
	website. However, for other State Forests (Eastern and Western), a summary of			
	ults of the most recent monitoring information is not being maintained. The			
content must address the indicators listed in Criterion 8.2, and be made available to the public, free or				
at a nominal price, u				
	equest (or Observation): While protecting confidentiality, either full monitoring			
results or an up-to-date summary of the most recent monitoring information shall be maintained,				
-	ors listed in Criterion 8.2, and be made available to the public, free or at a nominal			
price, upon request.	,,			
FME response	Forest Stewardship Council Audit 2014 – Response to Major CAR			
(including any	.,,			
evidence	Indicator 8.2.a.1 For all commercially harvested products, an inventory system is			
submitted)	maintained. The inventory system includes at a minimum: a) species, b) volumes,			
,	c) stocking, d) regeneration, and e) stand and forest composition and structure;			
	and f) timber quality.			
	FMU Response: A complete forest re-inventory is in progress, entering year four of			
	five, for the Western State Forests and will begin in 2014 for the Eastern state			
	forests (Pocomoke State Forest and Chesapeake Forest). Some preliminary			
	analysis has been completed and is available under the Monitoring sections for the			

relevant state forest webpage. The most recent forest inventories were completed in 2002 for the western state forests, in 2009 for Pocomoke State Forest and in 2004 for Chesapeake Forest. Results are found in the Sustainable Forest Management Plan's available online on the relevant state forest webpages.

Indicator 8.2.a.2 Significant, unanticipated removal or loss or increased vulnerability of forest resources is monitored and recorded. Recorded information includes date and location of occurrence, description of disturbance, extent and severity of loss, and may be both quantitative and qualitative.

FMU Response: This information, unanticipated removal or loss or increased vulnerability of forest resources, would be expressed in each of the state forest annual work plans which is made publically available on the relevant state forest webpage. These events require a response in silvicultural activities that will often be highlighted in the annual work plan. For example, in the fiscal year 2014 work plan for Green Ridge State Forest, the annual work plan summary states:

This work plan includes three silviculture proposals for a total of 281 managed acres within the 24,414 acre general management zone in which area based sustainable forest management is practiced. Within these managed acres, end of rotation harvests are proposed to regenerate the stands while salvaging ice damaged forest resources. These harvests are proposed due to near total mortality of the overstory trees that resulted from a catastrophic hail storm event. There will be some variation between managed acres and actual harvest acres to provide for various buffers and/or retention areas.

On 27 May 2011 a major storm event producing very large hail impacted stands in the Mertens Avenue/Oldtown Road intersection area of the forest causing significant canopy loss. One year later the damage was evaluated and we learned that significant mortality occurred in approximately 400 acres of mature oak stands. The silviculture proposals in this work plan are the result of responding to this mortality. These proposals will focus on regenerating these stands while salvaging the timber loss. Once these salvage proposals are approved, they will be moved ahead to be accomplished during the FY-2013 operation cycle to salvage the timber while it is still merchantable. In return, an equivalent number of proposals approved in the FY-2013 AWP will be held for the FY-2014 operation cycle.

The silviculture proposals within this plan include 281 acres of variable retention harvests for an estimated 1,090 mbf of hardwood timber.

Indicator 8.2.b The forest owner or manager maintains records of harvested timber and NTFPs (volume and product and/or grade). Records must adequately ensure that the requirements under Criterion 5.6 are met.

FMU Response: Each state forest maintains a Silvicultural Activity Summary By Annual Work Plan that is available on the relevant state forest webpages. Also, each Sustainable Forest Management Plan has included an explanation of the

annual growth calculations.

Indicator 8.2.c The forest owner or manager periodically obtains data needed to monitor presence on the FMU of:

- 1) Rare, threatened and endangered species and/or their *habitats*;
- 2) Common and rare plant communities and/or habitat;
- 3) Location, presence and abundance of invasive species;
- 4) Condition of protected areas, set-asides and buffer zones;
- 5) High Conservation Value Forests (see Criterion 9.4).

FMU Response: As possible, respecting the security issues of protected species and habitats as guided by the Maryland Natural Heritage Program, the results of this data are covered in each of the Sustainable Forest Management Plans. More recent and specific research and inventories can be found under the Monitoring section on each of the state forest webpages. The HCVF is documented and outlined in the Sustainable Forest Management Plan for each of the state forests (available online).

Indicator 8.2.d.1 Monitoring is conducted to ensure that site specific plans and operations are properly implemented, environmental impacts of site disturbing operations are minimized, and that harvest prescriptions and guidelines are effective.

FMU Response: Operations monitoring is performed by our internal audit. This team includes the Regional Supervisor and Environmental Specialist which receives a list of all silvicultural activities that have been completed within the last year or are currently on going, and either visits each of these sites or a randomly selected subset. The sites are walked, discussed and examined based on established criteria such as how the annual work plan proposal was implemented and how well the operations was conducted considering sensitive areas, unique cultural or geologic resources, forest retention, aesthetic and recreation considerations, water quality, forest health and regeneration, forest roads, and community relations.

The internal audits sheets are made available to the certification audit body and are available to the public for free or at a nominal price upon request.

Indicator 8.2.d.2 A monitoring program is in place to assess the condition and environmental impacts of the forest-road system.

FMU Response: A forest roads inventory has been completed and is maintained in a GIS database for each of the state forests. The Forest Roads Management for Forest Operations on Maryland State Forests established the protocol in how this data would be collected and maintained. This system not only identifies the road structures such as culverts and bridges but also road segments, dimensions and condition. This system was used to create a priority list of culverts and roads to receive maintenance funding.

The inventory protocol or an analysis of the results is available to the public for free or at a nominal price upon request.

Indicator 8.2.d.3 The landowner or manager monitors relevant socio-economic issues (see Indicator 4.4.a), including the social impacts of harvesting, participation in local economic opportunities (see Indicator 4.1.g), the creation and/or maintenance of quality job opportunities (see Indicator 4.1.b), and local purchasing opportunities (see Indicator 4.1.e).

FMU Response: The DNR Forest Service three-step review process involves an Inter-Disciplinary Team of natural resource professions including: forestry, wildlife, natural heritage, fisheries, parks, and water resources. This team reviews each of the annual work plans and performs local site visits for proposals that may have a proximity to sensitive habitats or species. The second level of review involves a Citizens Advisory Committee comprised of an eleven-person team representing a wide arrangement of natural resource interests. These team members are local and knowledgeable in the resource interests they represent, such as recreation, hunting, fishing, forest industry, and special habitats. There purpose is to communicate the pulse of the resource issues and concerns they represent. The third level of review is a 30-day public review of each of the state forest annual work plans.

The comments from each of these three groups then become part of the work plan document itself which is available online.

Indicator 8.2.d.4 Stakeholder responses to management activities are monitored and recorded as necessary.

FMU Response: See Indicator 8.2.d.3 FMU Response above.

Indicator 8.2.d.5 Where sites of cultural significance exist, the opportunity to jointly monitor sites of cultural significance is offered to tribal representatives (see Principle 3).

FMU Response: There are no federally recognized tribes in Maryland.

Indicator 8.2.e The forest owner or manager monitors the costs and revenues of management in order to assess productivity and efficiency.

FMU Response: Each of the state forest annual work plans includes a budget section that outlines expected incomes and expenditures for the forest.

MD DNR have created a new "Monitoring" info block on the right sidebar for each of the state forests. We wanted to get this info collected and up ASAP, but soon will begin work with our webmaster to consolidate the monitoring references to a single webpage for ease of maintenance and access, with references to the appropriate state forests.

	Webpages updated:		
	Potomac Garrett State Forest ::		
	http://dnr.maryland.gov/publiclands/western/garrettforest.asp/		
	http://dnr.maryland.gov/publiclands/western/potomacforest.asp		
	Savage River State Forest ::		
	http://dnr.maryland.gov/publiclands/western/savageriverforest.asp		
	Green Ridge State Forest ::		
	http://dnr.maryland.gov/publiclands/western/greenridgeforest.asp		
	Pocomoke State Forest ::		
	http://dnr.maryland.gov/publiclands/eastern/pocomokeforest.asp		
	Chesapeake Forest ::		
	http://dnr.maryland.gov/forests/chesapeakeforestlands.asp		
SCS review	MD DNR's response provides a summary of how monitoring results are currently available in AWPs or SFMPs on the website or how monitoring results are made		
	available upon request. Those that can be made available upon request were		
	shown to the SCS audit team as evidence for Principle 6 and Criterion 8.2. The		
	websites now present the most up-to-date monitoring results as confirmed on		
	April 29, 2014. MD DNR's current actions are sufficient to warrant closure of this		
	Major CAR.		
	While there are no federally recognized tribes in Maryland, MD DNR has reached		
	out to representatives of indigenous people of the state. No comments from		
	tribal representatives have been received by MD DNR or SCS related to sites of		
	cultural significance on the certified FMU.		
	In addition for 8.2.e, MD DNR is also subject to internal audits and external		
	legislative audits to ensure that funds are received and appropriated according to		
	applicable laws and regulations. This information is public.		
	applicable laws and regulations. This information is passic.		
	Tracking the summary of monitoring results and updates to the same will be done		
	via MD DNR's master checklist of certification requirements. Future audits will		
	focus on updates and completeness of the information presented.		
Status of CAR:	X Closed		
	Upgraded to Major		
	Other decision (refer to description above)		

	Finding Number: 2014.15	
Select one:	ijor CAR	
FMU CAR/OBS issue	d to (when more than one FMU):	
Deadline	Pre-condition to certification 3 months from Issuance of Final Report Next audit (surveillance or re-evaluation) Other deadline (specify):	
FSC Indicator:	FSC-STD-50-001 V1-2, indicator 6.1 (see also COC for FMEs, part 3)	
Non-Conformity (<i>or justification</i>): Website does not include the full promotional panel. Management documents that are linked to the website and observed in hard copy include FSC trademarks that are not in conformance with the most recent version of the trademark standard. The FME requested permission to used trademarks in 2009 and 2011 and the website and management documents were in conformance to the previous trademark standard.		
Corrective Action Request (or Observation): Catalogues, brochures, and websites shall include the promotional panel or its elements in a prominent place. A link or text such as "Look for FSC certified products" is included next to the panel, where the products are not all on the same page. FSC certified products are indicated by using the logo or with "FSC certified" in the product description.		
FME response (including any evidence submitted)		
SCS review	FME demonstrated records of approval for use of the FSC promotional panel in the forest management plans for the Chesapeake and Pocomoke State Forests (approval granted from SCS on July 2, 2014).	
Status of CAR:	X Closed Upgraded to Major Other decision (refer to description above)	

4.2 New Corrective Action Requests and Observations

	Finding Number: 2015.1		
Select one:	ijor CAR X Minor CAR Dobservation		
FMU CAR/OBS issue	ed to (when more than one FMU):		
Deadline	Pre-condition to certification		
	3 months from Issuance of Final Report		
	· · · · · · · · · · · · · · · · · · ·		
	Next audit (surveillance or re-evaluation)		
ECC In directors	Other deadline (specify):		
FSC Indicator:	FSC-US indicator 5.6.c.		
• •	Background/ Justification in the case of Observations): Rates and methods of		
	ot leading to achieving desired conditions, or improving or maintaining health and		
	AU. Overstocked stands and stands that have been depleted or rendered to be		
	etential due to natural events, past management, or lack of management, are not		
_	esired stocking levels and composition at the earliest practicable time as justified in .		
management objecti	ves.		
On Savage River, har	vest levels have been at below planned acres to be treated in annual work plans for		
_	Hinformation shows that sufficient regeneration is not being achieved. These oak		
forest types are olde	er, overstocked, and at risk of becoming distressed, which could make establishing		
regeneration difficul	t. This is a significant deviation from planned activities described in Annual Work		
Plans that are to be i	implemented to achieve desired stocking and species compositions.		
Corrective Action Re	equest (or Observation): Rates and methods of timber harvest shall lead to		
achieving desired conditions, and improve or maintain health and quality across the FMU. Overstocked			
stands and stands that have been depleted or rendered to be below productive potential due to natural			
events, past manage	ment, or lack of management, shall be returned to desired stocking levels and		
composition at the earliest practicable time as justified in management objectives.			
FME response			
(including any			
evidence			
submitted)			
SCS review			
Status of CAR:	Closed		
	Upgraded to Major		
	Other decision (refer to description above)		

	Finding Number: 2015.2		
Select one:	jor CAR Minor CAR X Observation		
FMU CAR/OBS issue	d to (when more than one FMU):		
Deadline	Pre-condition to certification		
	3 months from Issuance of Final Report		
	Next audit (surveillance or re-evaluation)		
	Other deadline (specify): No deadline		
FSC Indicator:	FSC-US Indicator 6.2.b.		
	Background/ Justification in the case of Observations):		
• •	e present or assumed to be present, modifications in management are made in		
·	estore or enhance the extent, quality and viability of the species and their habitats.		
Conservation zones	and/or <i>protected areas</i> are established for RTE species, including those S3 species		
	rare, where they are necessary to maintain or improve the short and long-term		
	es. Conservation measures are based on relevant science, guidelines and/or		
	evant, independent experts as necessary to achieve the conservation goal of the		
Indicator.			
On the Frateur Chan	the second Delivery Devive the still and the		
	e, there are several Delmarva Bay restoration projects that will require consistent		
prescribed fire applications for the first three years after initial restoration activities followed by periodic natural or prescribed fire at certain intervals. FME currently has been hindered by weather and			
·	rces to keep up with these activities. Specialists involved in this project have		
	coration objectives for this community of RTE plants cannot be met without fire.		
	nation with prescribed fire at Shale Barrens in the Western Region.		
	equest (or Observation): FME should ensure that it implements prescribed fire		
activities in a timely manner to better ensure the success of its ecological restoration projects.			
FME response			
(including any			
evidence			
submitted)			
SCS review			
Status of CAR:	Closed		
	Upgraded to Major		
	Other decision (refer to description above)		

	Finding Number: 2015.3		
Select one: Ma	jor CAR		
FMU CAR/OBS issue	d to (when more than one FMU):		
Deadline	Pre-condition to certification 3 months from Issuance of Final Report Next audit (surveillance or re-evaluation)		
FCC In diagton.	X Other deadline (specify): No deadline		
FSC Indicator:	FSC-US Indicator 6.5.d.		
Non-Conformity (or Background/ Justification in the case of Observations): The transportation system, including design and placement of permanent and temporary haul roads, skid trails, recreational trails, water crossings and landings, is designed, constructed, maintained, and/or reconstructed to reduce short and long-term environmental impacts, habitat fragmentation, soil and water disturbance and cumulative adverse effects, while allowing for customary uses and use rights. This includes:			
 access to all roads and trails (temporary and permanent), including recreational trails, and offroad travel, is controlled, as possible, to minimize ecological impacts; road density is minimized; erosion is minimized; sediment discharge to streams is minimized; there is free upstream and downstream passage for aquatic organisms; impacts of transportation systems on wildlife habitat and migration corridors are minimized; area converted to roads, landings and skid trails is minimized; habitat fragmentation is minimized; and unneeded roads are closed and rehabilitated. 			
FME has fallen behind in its road construction and maintenance upgrades or closures due to several factors outside of its control in the Western Region. There are several crossings and other drainage features in need of upgrades (or closures) in order to prevent negative impacts to soil and water.			
Corrective Action Request <i>(or Observation)</i> : FME should consider accelerating the rate of implementation of its road construction and maintenance program to ensure continued conformance to the requirements of 6.5.d.			
FME response			
(including any			
evidence			
submitted) SCS review			
Status of CAR:			
Status of CAIN.	Closed		
	Upgraded to Major		
	U Other decision (refer to description above)		

	Finding Number: 2015.4	
Select one: Ma	jor CAR Minor CAR X Observation	
FMU CAR/OBS issue	d to (when more than one FMU):	
Deadline	Pre-condition to certification 3 months from Issuance of Final Report Next audit (surveillance or re-evaluation) X Other deadline (specify): No deadline	
FSC Indicator:	FSC-US Indicator 6.6.c.	
Non-Conformity (or Background/ Justification in the case of Observations): Chemicals and application methods are selected to minimize risk to non-target species and sites. When considering the choice between aerial and ground application, the forest owner or manager evaluates the comparative risk to non-target species and sites, the comparative risk of worker exposure, and the overall amount and type of chemicals required.		
Aerial spraying is done with a helicopter equipped with sensitive GPS equipment, which coupled with the machine's high maneuverability, helps to reduce the risk to non-target species and sites and virtually eliminates the risk of the pilot's exposure to chemicals.		
On Wango Pines, during an aerial herbicide treatment the helicopter operator sprayed non-target species of concern (horse sugar and sheep laurel) that were clearly designated on maps and in GIS with buffers. The buffer was discussed with the forester in charge prior to the application, but apparently the pilot forgot about this sensitive site (note that others sensitive areas were avoided).		
FME's contractor, Parker Forestry, has suggested some corrective actions to implement during the next application to eliminate this risk in the future (i.e., an onsite briefing just prior to spraying). Initial communication with the applicator on these corrective actions took place well prior to the FSC audit.		
Corrective Action Request (or Observation): FME should ensure that corrective actions are implemented to avoid risk to non-target species during aerial applications.		
FME response (including any evidence submitted)		
SCS review		
Status of CAR:	Closed Upgraded to Major Other decision (refer to description above)	

	Finding Number: 2015.5	
Select one:	jor CAR Minor CAR X Observation	
FMU CAR/OBS issue	d to (when more than one FMU):	
Deadline	Pre-condition to certification 3 months from Issuance of Final Report Next audit (surveillance or re-evaluation) X Other deadline (specify): No deadline	
FSC Indicator:	FSC-US Indicator 7.2.a.	
· · · · · · · · · · · · · · · · · · ·	Background/ Justification in the case of Observations):	
	an is kept up to date. It is reviewed on an ongoing basis and is updated whenever	
necessary to incorpo	rate the results of monitoring or new scientific and technical information, as well as	
to respond to changi	ng environmental, social and economic circumstances.	
	changes to its management plans in response to OBS 2014.10 that have been me SFMPs, but not all.	
Corrective Action Request (or Observation): FME should ensure that its response to OBS 2014.10 is		
fully incorporated int	to management planning documents by the next audit.	
FME response		
(including any		
evidence		
submitted)		
SCS review		
Status of CAR:	Closed	
	Upgraded to Major	
	Other decision (refer to description above)	

5. Stakeholder Comments

In accordance with SCS protocols, consultation with key stakeholders is an integral component of the evaluation process. Stakeholder consultation takes place prior to, concurrent with, and following field evaluations. Distinct purposes of such consultation include:

- To solicit input from affected parties as to the strengths and weaknesses of the FME's
 management, relative to the standard, and the nature of the interaction between the company
 and the surrounding communities.
- To solicit input on whether the forest management operation has consulted with stakeholders regarding identifying any high conservation value forests (HCVFs).

Principal stakeholder groups are identified based upon results from past evaluations, lists of stakeholders from the FME under evaluation, and additional stakeholder contacts from other sources (e.g., chair of the regional FSC working group). The following types of groups and individuals were determined to be principal stakeholders in this evaluation:

5.1 Stakeholder Groups Consulted

Citizen Advisory Committee members	

Stakeholder consultation activities are organized to give participants the opportunity to provide comments according to general categories of interest based on the three FSC chambers, as well as the SCS Interim Standard, if one was used. The table below summarizes the major comments received from stakeholders and the assessment team's response. Where a stakeholder comment has triggered a subsequent investigation during the evaluation, the corresponding follow-up action and conclusions from SCS are noted below.

5.2 Summary of Stakeholder Comments and Responses from the Team, Where Applicable

FME has not received any stakeholder comments from interested parties as a result of stakeholder			
outreach activities during this annual audit.			
Stakeholder comments SCS Response			
Economic concerns			
None.			
Social concerns			
Maryland DNR does a good job	Noted as evidence of conformance.		
of balancing social, economic,			
and environmental			
considerations.			
Environmental concerns			
Maryland DNR's Natural	Noted as evidence of conformance; Maryland DNR implements		
Heritage Program is a very	several restoration projects on natural heritage areas to establish or		
important partner for us. We	maintain communities of rare plants on Eastern Shore and in the		
have a very good relationship	Western Region. For example, the audit team visited Delmarva Bay		
with the DNR on our reserve	restoration harvest and burn sites on the Eastern Shore and Shale		
area management initiative.	Barren Communities in the Western Region.		

6. Certification Decision

The certificate holder has demonstrated continued overall conformance to the	
applicable Forest Stewardship Council standards. The SCS annual audit team	Yes X No
recommends that the certificate be sustained, subject to subsequent annual	
audits and the FME's response to any open CARs.	
Comments:	

7. Changes in Certification Scope

Any changes in the scope of the certification since the previous audit are highlighted in yellow in the tables below.

Name and Contact Information

Organization name		
Contact person		
Address	Telephone	
	Fax	
	e-mail	
	Website	
FSC Sales Information		
FSC Sales contact information same as above.		
FSC salesperson		
Address	Telephone	
	Fax	
	e-mail	
	Website	
Scope of Certificate		
Certificate Type	Single FMU Multiple FMU	
0.000	Group	
SLIMF (if applicable)	Small SLIMF Low intensity SLIMF	
	certificate certificate	
	Group SLIMF certificate	
# Group Members (if applicable)	Group SERVIT CET CITICALC	
Number of FMUs in scope of certificate		
Geographic location of non-SLIMF FMU(s)	Latitude & Longitude:	
Forest zone		
	☐ Boreal ☐ Temperate	
	Subtropical Tropical	
Total forest area in scope of certificate which is:	Units: ☐ ha or ☐ a	ıc
privately managed		
state managed		
community managed		
Number of FMUs in scope that are:		
less than 100 ha in area	100 - 1000 ha in area	
1000 - 10 000 ha in area	more than 10 000 ha in area	
Total forest area in scope of certificate which is in	ncluded in FMUs that: Units: ha or a	ЭС
are less than 100 ha in area		
are between 100 ha and 1000 ha in area		
meet the eligibility criteria as low intensity SLIMF F	·MUs	
Division of FMUs into manageable units:		

Production Forests

Timber Forest Products	Units: ha or ac	
Total area of production forest (i.e. forest from which timber may be harvested)		
Area of production forest classified as 'plantation'		
Area of production forest regenerated primarily by replanting or by a		
combination of replanting and coppicing of the planted stems		
Area of production forest regenerated primarily by natural		
regeneration, or by a combination of natural regeneration and		
coppicing of the naturally regenerated stems		
Silvicultural system(s)	Area under type of management	
Even-aged management		
Clearcut (clearcut size range)		
Shelterwood		
Other:		
Uneven-aged management		
Individual tree selection		
Group selection		
Other:		
Other (e.g. nursery, recreation area, windbreak, bamboo, silvo-		
pastoral system, agro-forestry system, etc.)		
The sustainable rate of harvest (usually Annual Allowable Harvest or		
AAH where available) of commercial timber (m3 of round wood)		
Non-timber Forest Products (NTFPs)	T	
Area of forest protected from commercial harvesting of timber and		
managed primarily for the production of NTFPs or services		
Other areas managed for NTFPs or services		
Approximate annual commercial production of non-timber forest		
products included in the scope of the certificate, by product type		
Explanation of the assumptions and reference to the data source upon	which AAH and NTFP harvest	
rates estimates are based:		
Species in scope of joint FM/COC certificate: (Scientific / Latin Name and	Common / Trade Name)	

FSC Product Classification

Timber products			
Product Level 1	Product Level 2	Species	
Non-Timber Forest Products			
Product Level 1	Product Level 2	Product Level 3 and Species	

Conservation Areas						
Total area of forest and non-forest land protected from commercial ha or ac						
		timber and managed		ition objectives:		
		vation Value Forest / A				
High		vation Values present	•		Units: Lha	
	Code		' Type	Description	on & Location	Area
	HCV1	Forests or areas cont regionally or national				
			odiversity values (e.g.			
		endemism, endange				
	HCV2	Forests or areas cont				
		regionally or nationa				
		•	sts, contained within,			
		or containing the ma	inagement unit, tions of most if not all			
			pecies exist in natural			
		patterns of distributi				
	HCV3	Forests or areas that	are in or contain			
		rare, threatened or e	endangered			
		ecosystems.				
	HCV4	Forests or areas that	•			
services of nature in critical situations (e.g. watershed protection, erosion control).						
	HCV5 Forests or areas fundamental to meeting					
basic needs of local communities (e.g.						
	subsistence, health).					
	HCV6 Forests or areas critical to local					
		communities' tradition	•			
		religious significance	ological, economic or			
			ch local communities).			
		cooperation with sat	in local communices).			
Tota	l Area of	forest classified as 'H	ligh Conservation Val	ue Forest / Area'		
Areas Outside of the Scope of Certification (Partial Certification and Excision)						
\square N/A – All forestland owned or managed by the applicant is included in the scope.						
Applicant owns and/or manages other FMUs not under evaluation.						
Applicant wishes to excise portions of the FMU(s) under evaluation from the scope of certification.						
Explanation for exclusion of						
FMUs and/or excision:						
		sures to prevent				
mixi	ng of cer	tified and non-				

Description of FMUs excluded from, or forested area excised from, the scope of certification:				
Location (city, state, country)	Size (ha or ac)			

8. Annual Data Update

8.1 Social Information

Number of forest workers (including contractors) working in forest within scope of certificate		
(differentiated by gender):		
# of male workers # of female workers		
Number of accidents in forest work since last audit: Serious: # Fatal: #		

8.2 Annual Summary of Pesticide and Other Chemical Use

FME does not use pesticides.					
Commercial name of pesticide / herbicide	Active ingredient	Quantity applied annually (kg or lbs)	Size of area treated during previous year	Reason for use	

SECTION B – APPENDICES (CONFIDENTIAL)

Appendix 1 – List of FMUs Selected For Evaluation

X	FME consists of a single FMU
	FMF consists of multiple FMUs or is a Group

Appendix 2 – List of Stakeholders Consulted

List of FME Staff Consulted

Name	Title	Contact Information	Consultation method
Jack Perdue	DNR-Forest Service	Certificate holder	Field and meeting
Anne Hairston-Strang	DNR-Forest Service		
Mike Schofield	DNR-MFS		
Don VanHassent	DNR-Forest Service		
Stephen Payne	DNR-NRP		
Brett Coakley	DNR-Fisheries		
Gary Adelhardt	DNR-Forest Service		
Wesley Knapp	DNR-Wildlife &		
	Heritage		
George Elberling	DNR-Forest Service		
Kip Powers	DNR-Forest Service		
Alexander Clark	DNR-Forest Service		
John F. Wilson	DNR-LAP		
Pete Dolan	DNR-CCS		
Mark Beals	DNR-Forest Service		
Jesse Morgan	DNR-Forest Service		
Eric Null	DNR-Forest Service		
Steve Carr	DNR LAP Trails		
	planner		
Wade Dorsey	DNR-Forest Service		
John Denning	DNR-Forest Service		
Jason Savage	DNR-Forest Service		
Mike Johnson	DNR-Forest Service		
Noah Rowe	DNR-Forest Service		
Scott Campbell	DNR-Forest Service		
Jeff Sweitzer	DNR-NRP		
Kenneth Jolly	DNR-Forest Service		
Ed Thompson	DNR-Heritage		
Pete Kelley	DNR-Forest Service		

List of other Stakeholders Consulted

Name	Organization	Contact	Consultation	Requests
		Information	method	Cert. Notf.
Skip Jones	Parker Forestry		Field and	No
John Connor			meeting	
Stacy Esham				
Bill Giese	Citizen Advisory			No
Tony DiPaolo	Committee			No
Deborah Barber				No
Donnell Keech				No
Francis Zumbrun				No

Appendix 3 – Additional Audit Techniques Employed

No additional audit techniques were employed.

Appendix 4 - Pesticide Derogations

X There are no active pesticide derogations for this FME.			
Name of pesticide / herbicide (active ingredient) Date derogation approved			
Condition Conformance (C / NC)		Evidence of progress	

Appendix 5 – Detailed Observations

Evaluation Year	FSC P&C Reviewed
2014	All – (Re)certification Evaluation
2015	1.3, 1.5, 1.6, 2.3, 3.1, 3.2, 3.4, 4.2, 4.4, 6.2, 6.3, 6.5, 6.6, 6.9, 7.1, 7.2, 7.4, 8.2, and 8.3 (COC indicators for FMEs)
2016	
2017	
2018	

C= Conformance with Criterion or Indicator

NC= Nonconformance with Criterion or Indicator

NA = Not Applicable

NE = Not Evaluated

REQUIREMENT	C/NC	COMMENT/CAR	
Principle #1: Compliance with Laws and FSC Principles			
Forest management shall respect all applicable laws of the country in which they occur, and international treaties and			
agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.			
1.1 Forest management shall respect all national	NE		

and local laws and administrative requirements.		
1.2. All applicable and legally prescribed fees,	NE	
royalties, taxes and other charges shall be paid.	INC	
1.3. In signatory countries, the provisions of all	С	
binding international agreements such as CITES,		
ILO Conventions, ITTA, and Convention on		
Biological Diversity, shall be respected.		C: L:L: ABBRAR
1.3.a. Forest management plans and operations	С	Ginseng, which is not allowed to be harvested on MD DNR
comply with relevant provisions of all applicable		lands, is regulated by the Maryland Department of
binding international agreements.		Agriculture to comply with CITES. See also response to OBS 2014.1.
1.4. Conflicts between laws, regulations and the	NE	
FSC Principles and Criteria shall be evaluated for		
the purposes of certification, on a case by case		
basis, by the certifiers and the involved or affected		
parties.		
1.5. Forest management areas should be	С	
protected from illegal harvesting, settlement and		
other unauthorized activities.		
1.5.a. The forest owner or manager supports or	С	Potomac Garrett State Forest One unauthorized
implements measures intended to prevent illegal		use/occupancy of state forestland. While conducting
and unauthorized activities on the Forest		routine boundary line maintenance, DNR-staff found a
Management Unit (FMU).		neighboring landowner was fencing a piece of state
, ,		forestland. Further investigation indicated that the man had
		made an adverse possession claim on the property. A
		meeting was held to discuss this claim, and the issue was
		resolved. Fence will be removed, and a subsequent claim
		will be recorded in tax office so neighbor will not be
		charged taxes on the state forestland he had mistakenly
		claimed.
		Character Faces (P
		Chesapeake Forest / Pocomoke State Forest There was
		one instance of illegal ATV use, with significant impact on
		RTE species and natural communities. Natural Resource
		Police were notified of this violation and are patrolling the
		area. This issue involved significant ATV damage at a few
		Delmarva Bays and a Wetlands of Special State Concern at
		Brookview Ponds ESA. Buffering and/or special harvesting
		prescriptions are employed to protect these resources.
1.5.b. If illegal or unauthorized activities occur, the	С	See 1.5.a.
forest owner or manager implements actions		

designed to curtail such activities and correct the		
situation to the extent possible for meeting all land		
management objectives with consideration of		
available resources.		
1.6. Forest managers shall demonstrate a long-	С	
term commitment to adhere to the FSC Principles		
and Criteria.		
1.6.a. The forest owner or manager demonstrates	С	See response to Minor CAR 2014.2.
a long-term commitment to adhere to the FSC		
Principles and Criteria and FSC and FSC-US policies,		
including the FSC-US Land Sales Policy, and has a		
publicly available statement of commitment to		
manage the FMU in conformance with FSC		
standards and policies.		
1.6.b . If the certificate holder does not certify their	С	See Section A of 2014 recertification report (or section 7/8
entire holdings, then they document, in brief, the		of annual audit reports) for a list of all lands outside of the
reasons for seeking partial certification referencing		scope of the certificate.
FSC-POL-20-002 (or subsequent policy revisions),		
the location of other managed forest units, the		
natural resources found on the holdings being		
excluded from certification, and the management		
activities planned for the holdings being excluded		
from certification.		
1.6.c. The forest owner or manager notifies the	С	See response to OBS 2014.3.
Certifying Body of significant changes in ownership		
and/or significant changes in management planning		
within 90 days of such change.		
•	land and	forest resources shall be clearly defined, documented and
legally established.	NE	
2.1. Clear evidence of long-term forest use rights	NE	
to the land (e.g., land title, customary rights, or		
lease agreements) shall be demonstrated.	NE	
2.2. Local communities with legal or customary	NE	
tenure or use rights shall maintain control, to the		
extent necessary to protect their rights or		
resources, over forest operations unless they		
delegate control with free and informed consent		
to other agencies.		
2.3. Appropriate mechanisms shall be employed	С	
to resolve disputes over tenure claims and use		
rights. The circumstances and status of any		

		T
outstanding disputes will be explicitly considered		
in the certification evaluation. Disputes of		
substantial magnitude involving a significant		
number of interests will normally disqualify an		
operation from being certified.		
2.3.a If <i>disputes</i> arise regarding tenure claims or	С	Potomac Garrett State Forest See C1.5. Pertinent
use rights then the forest owner or manager		contacts: Nathan Beeman, DNR-LAP Property Specialist.
initially attempts to resolve them through open		
communication, negotiation, and/or mediation. If		
these good-faith efforts fail, then federal, state,		
and/or local laws are employed to resolve such		
disputes.		
2.3.b The forest owner or manager documents any	С	Potomac Garrett State Forest See C1.5. Pertinent
significant disputes over tenure and use rights.		contacts: Nathan Beeman, DNR-LAP Property Specialist.
Principle #3: The legal and customary rights of indig	enous pe	oples to own, use and manage their lands, territories, and
resources shall be recognized and respected.	1	
3.1. Indigenous peoples shall control forest	NA	There are no Federally recognized native American tribes in
management on their lands and territories unless		Maryland. There is no tribal forest management or
they delegate control with free and informed		ownership/ use rights on MD DNR lands. However, with
consent to other agencies.		assistance from the Maryland Commission on Indian Affairs,
		has placed several native American members on the
		Citizens Advisory Committee in the past.
3.1.a Tribal forest management planning and	NA	
implementation are carried out by authorized tribal		
representatives in accordance with tribal laws and		
customs and relevant federal laws.		
3.1.b The manager of a tribal forest secures, in	NA	
writing, informed consent regarding forest		
management activities from the tribe or individual		
forest owner prior to commencement of those		
activities.		
3.2. Forest management shall not threaten or	NA	
diminish, either directly or indirectly, the		
resources or tenure rights of indigenous peoples.		
3.2.a During management planning, the forest	NA	FME reported that no activities have taken place that affect
owner or manager consults with American Indian		any tribal resources in 2015.
groups that have legal rights or other binding		
agreements to the FMU to avoid harming their		
resources or rights.		
3.2.b Demonstrable actions are taken so that forest	NA	There are no tribal forest management or ownership/ use
management does not adversely affect tribal		rights on MD DNR lands. There are no sites of special tribal
L	1	I .

resources. When applicable, evidence of, and		significance on the certified FMU. There are no tribes with
measures for, protecting tribal resources are		legal rights or binding agreements to the FMU.
incorporated in the management plan.		
3.3. Sites of special cultural, ecological, economic	NE	
or religious significance to indigenous peoples		
shall be clearly identified in cooperation with such		
peoples, and recognized and protected by forest		
managers.		
3.4. Indigenous peoples shall be compensated for	NA	No protected traditional knowledge is used for commercial
the application of their traditional knowledge		or forest management purposes.
regarding the use of forest species or		
management systems in forest operations. This		
compensation shall be formally agreed upon with		
their free and informed consent before forest		
operations commence.		
3.4.a The forest owner or manager identifies	NA	
whether <i>traditional knowledge</i> in forest		
management is being used.		
3.4.b When traditional knowledge is used, written	NA	
protocols are jointly developed prior to such use		
and signed by local tribes or tribal members to		
protect and fairly compensate them for such use.		
3.4.c The forest owner or manager respects the	NA	
confidentiality of tribal traditional knowledge and		
assists in the protection of such knowledge.		
Principle #4: Forest management operations shall m	naintain c	or enhance the long-term social and economic well-being of
forest workers and local communities.		
4.1. The communities within, or adjacent to, the	NE	
forest management area should be given		
opportunities for employment, training, and other		
services.		
4.2. Forest management should meet or exceed all	С	
applicable laws and/or regulations covering health		
and safety of employees and their families.		
4.2.a The forest owner or manager meets or	С	There have been no changes to health & safety regulations
exceeds all applicable laws and/or regulations		or FME's internal policies regarding the same since the last
covering health and safety of employees and their		audit.
families (also see Criterion 1.1).		
		In interviews with forestry contractors and state
		employees, these workers demonstrated knowledge of
		safety requirements and had required licenses or

		certificates to demonstrate that they can safely implement
		planned management activities. For example, heritage
		program staff interviewed in 2015 maintain pesticide
		applicator's licenses, as confirmed through interviews.
		Safety laws are referenced in training for licensing/
		certification and in FME's relevant management planning
		policies and procedures. Timber operation plan reviews
		occur prior to all timber sales, in which contractor
		qualifications are reviewed.
4.2.b The forest owner or manager and their	С	On the Eastern Shore, an employee of logging contractor
employees and contractors demonstrate a safe		was cut when skidder door closed on hand, which was the
work environment. Contracts or other written		only lost-time accident that the FME reported in 2015.
agreements include safety requirements.		only lost time accident that the livit reported in 2013.
agreements include safety requirements.		Chesapeake Forest / Pocomoke State Forest Additional
		sections have been added to herbicide applicators contract.
		See also response to Minor CAR 2014.4 and OBS 2014.5.
4.2.c The forest owner or manager hires well-	С	While there were no active jobs during the 2015 annual
qualified service providers to safely implement the		audit, Parker Forestry has continued to demonstrate
management plan.		exemplary performance in planning and overseeing timber
management plant		harvests on the Eastern shore. Where mistakes have been
		detected, it has implemented corrective actions. For
		example, an herbicide contractor sprayed in an area that
		was marked off-limits and Parker Forestry will now conduct
		pre-work consultations to ensure that all off-limits areas.
4.3 The rights of workers to organize and	NE	pre-work consultations to ensure that all on-limits areas.
voluntarily negotiate with their employers shall be	INE	
guaranteed as outlined in Conventions 87 and 98		
Business and customer in control to the control of		
of the International Labor Organization (ILO).		
4.4. Management planning and operations shall	С	
incorporate the results of evaluations of social		
impact. Consultations shall be maintained with		
people and groups (both men and women)		
directly affected by management operations.		
4.4.a The forest owner or manager understands the	С	MD DNR provided a summary of social impacts; see
likely social impacts of management activities, and		response to Minor CAR 2014.6.
incorporates this understanding into management		
planning and operations. Social impacts include		
effects on:		
Archeological sites and sites of cultural,		

historical and community significance (on and off the FMU; Public resources, including air, water and food		
(hunting, fishing, collecting);Aesthetics;		
 Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health; Community economic opportunities; Other people who may be affected by management operations. 		
A summary is available to the CB.		
4.4.b The forest owner or manager seeks and considers input in management planning from people who would likely be affected by management activities.	С	The following procedure is similar for both annual work plan and management plan; however, the most frequently used means of seeking and considering input on an annual basis is the Public consultation process for AWP. The first draft is made by management staff, this is reviewed along with necessary field visits by DNR's internal interdisciplinary team, the revision is reviewed by the Citizen's Advisory Committee, and then it is put on the web for 30 day review period. A public announcement is distributed to every major news outlet in the State, plus Patch.com and several relevant blog sites.
4.4.c People who are subject to direct adverse	С	Chesapeake Forest / Pocomoke State Forest The DNR-
effects of management operations are apprised of relevant activities in advance of the action so that they may express concern.		Natural Resource Police asked about whether a piece of state land was being illegally logged, after an investigation it was determined that there was no timber trespass taking place.
		Examples in 2015 of FME's informing adjacent landowners of management activities include warnings of pending herbicide applications, most of which have yet to occur. See also 4.4.b and 4.4.d.
4.4.d For <i>public forests</i> , consultation shall include	С	See response to Minor CAR 2014.6.
 the following components: 4. Clearly defined and accessible methods for public participation are provided in both long and short-term planning processes, including harvest plans and operational plans; 		See response to winter CAR 2017.0.

5.	Public notification is sufficient to allow		
	interested stakeholders the chance to learn of		
	upcoming opportunities for public review		
	and/or comment on the proposed		
	management;		
6.	An accessible and affordable appeals process to		
	planning decisions is available.		
Pla	nning decisions incorporate the results of public		
COI	nsultation. All draft and final planning		
do	cuments, and their supporting data, are made		
rea	dily available to the public.		
4.5	. Appropriate mechanisms shall be employed	NE	
for	resolving grievances and for providing fair		
COI	npensation in the case of loss or damage		
aff	ecting the legal or customary rights, property,		
res	ources, or livelihoods of local peoples.		
Me	easures shall be taken to avoid such loss or		
da	mage.		
	•	_	the efficient use of the forest's multiple products and
	vices to ensure economic viability and a wide ran	1	rironmental and social benefits.
	. Forest management should strive toward	NE	
	onomic viability, while taking into account the		
ful	l environmental, social, and operational costs of		
pro	oduction, and ensuring the investments		
	cessary to maintain the ecological productivity		
of	the forest.		
	. Forest management and marketing operations	NE	
sho	ould encourage the optimal use and local		
pro	ocessing of the forest's diversity of products.		
5.3	. Forest management should minimize waste	NE	
ass	ociated with harvesting and on-site processing		
ор	erations and avoid damage to other forest		
res	ources.		
5.4	. Forest management should strive to	NE	
str	engthen and diversify the local economy,		
ave	piding dependence on a single forest product.		
5.5	. Forest management operations shall	NE	
	ognize, maintain, and, where appropriate,		
	hance the value of forest services and resources		
cui	de la constanta de la desarra de la constanta	l	
Sut	ch as watersheds and fisheries.		

average lovels which can be narrowently		
exceed levels which can be permanently		
sustained.	_	
5.6.a In FMUs where products are being harvested,	С	See SFMP Chapter 5, Appendix H and CFI Summary for each
the landowner or manager calculates the sustained		State Forest. MD DNR uses Remsoft's Woodstock program
yield harvest level for each sustained yield planning		to analyze forest inventory data to project sustainable
unit, and provides clear rationale for determining		harvest levels based on allowed silvicultural systems.
the size and layout of the planning unit. The		Harvest rates are based on area control rather than volume
sustained yield harvest level calculation is		control at this point in time. For example, the Green Ridge
documented in the Management Plan.		SFMP includes a description of the maximum number of
		acres that may be treated with variable retention harvests.
The sustained yield harvest level calculation for		
each planning unit is based on:		Appendix H includes a description of the assumptions
• documented growth rates for particular sites,		behind the growth and yield modeling, including the
and/or acreage of forest types, age-classes and		elements of the indicator. Summaries of projected growth
species distributions;		and allowable harvests based on growth rates, mortality,
 mortality and decay and other factors that 		disease, etc. are included in Appendix H.
affect net growth;		
 areas reserved from harvest or subject to 		
harvest restrictions to meet other management		
goals;		
• silvicultural practices that will be employed on		
the FMU;		
 management objectives and desired future 		
conditions.		
The calculation is made by considering the effects		
of repeated prescribed harvests on the		
product/species and its ecosystem, as well as		
planned management treatments and projections		
of subsequent regrowth beyond single rotation and		
multiple re-entries.		
5.6.b Average annual harvest levels, over rolling	С	Each State Forest maintains an annual work plan summary
periods of no more than 10 years, do not exceed		to compare actual acres harvested versus projected (e.g.,
the calculated sustained yield harvest level.		http://www.dnr.state.md.us/forests/download/awp_summ
•		ary.pdf). Harvest levels on an area control basis remain
		well below what is allowed per the Woodstock model. See
		Annual Work Plans for more information.
		a Work Fland for more morniadon.
		Chesapeake Forest / Pocomoke State Forest Pine
		pulpwood 39,651 tons harvested, Pine sawtimber 10,096
		tons harvested
		Green Ridge State Forest The allowable harvest at GRSF is

		to manage 200 acres for end of rotation regeneration
		harvests. FME managed 137 acres since the last audit.
		Savage River State Forest Four harvests sold since last
		audit: SR-07-14, 172,766 Bd. Ft., SR-01-15, 41,875 Bd.Ft.,
		SR-02-15, 90,380 Bd.Ft., SR-03-15, 48,406 Bd.Ft.
		Potomac Garrett State Forest ****
5.6.c Rates and methods of timber harvest lead to	NC	FME has been harvesting on overstocked stands of the
achieving desired conditions, and improve or		Eastern Region using pre-commercial thinning and a two-
maintain health and quality across the FMU.		entry thinning regime prior to final harvest. First-entry seed
Overstocked stands and stands that have been		tree harvests are used in pond pine restoration in which the
depleted or rendered to be below productive		seed trees are not removed and are recruited for legacy
potential due to natural events, past management,		trees. See audit itinerary for further details.
or lack of management, are returned to desired		
stocking levels and composition at the earliest		In the Western Region, shelterwood, thinning, clearcut, and
practicable time as justified in management		variable retention are used for treating overstocked stands
objectives.		and controlling species composition to deal with gypsy
		moth outbreaks.
		Notes on future management activities, such as silvicultural
		treatments or TSI, are incorporated into the forest GIS.
		Coo Minor CAD 2015 1
		See Minor CAR 2015.1.
5.6.d For NTFPs, calculation of quantitative	NA	No NTFPs are harvested in significant commercial
5.6.d For NTFPs, calculation of quantitative sustained yield harvest levels is required only in	NA	
	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in cases where products are harvested in significant	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new information that can be reasonably gathered, to set	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new	NA	No NTFPs are harvested in significant commercial
sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new information that can be reasonably gathered, to set harvesting levels that will not result in a depletion of the non-timber growing stocks or other adverse	NA	No NTFPs are harvested in significant commercial
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sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new information that can be reasonably gathered, to set harvesting levels that will not result in a depletion of the non-timber growing stocks or other adverse effects to the forest ecosystem. Principle #6: Forest management shall conserve biol unique and fragile ecosystems and landscapes, and, the forest. 6.1. Assessments of environmental impacts shall be completed appropriate to the scale, intensity of forest management and the uniqueness of the	logical div	No NTFPs are harvested in significant commercial operations. versity and its associated values, water resources, soils, and
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sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new information that can be reasonably gathered, to set harvesting levels that will not result in a depletion of the non-timber growing stocks or other adverse effects to the forest ecosystem. Principle #6: Forest management shall conserve biol unique and fragile ecosystems and landscapes, and, the forest. 6.1. Assessments of environmental impacts shall be completed appropriate to the scale, intensity of forest management and the uniqueness of the	logical div	No NTFPs are harvested in significant commercial operations. versity and its associated values, water resources, soils, and

the impacts of on-site processing facilities.		
Environmental impacts shall be assessed prior to		
commencement of site-disturbing operations.		
6.2 Safeguards shall exist which protect rare,	С	
threatened and endangered species and their		
habitats (e.g., nesting and feeding areas).		
Conservation zones and protection areas shall be		
established, appropriate to the scale and intensity		
of forest management and the uniqueness of the		
affected resources. Inappropriate hunting, fishing,		
trapping, and collecting shall be controlled.		
6.2.a If there is a likely presence of RTE species as	С	Chesapeake Forest / Pocomoke State Forest Numerous
identified in Indicator 6.1.a then either a field		surveys for Rare, Threatened and Endangered species have
survey to verify the species' presence or absence is		been conducted on CF/PSF lands during 2014. The vast
conducted prior to site-disturbing management		majority of these have been updates or monitoring in
activities, or management occurs with the		existing Ecologically Significant Areas (ESAs). Some areas
assumption that potential RTE species are present.		have been surveyed that appeared to contain high quality
		habitats outside of already existing ESAs but these yielded
Surveys are conducted by biologists with the		no new RTE species and thus no new ESAs designations.
appropriate expertise in the species of interest and		Implementation of harvests resulted in discovery of vernal
with appropriate qualifications to conduct the		pools and establishment of buffers on the Chandler Tract
surveys. If a species is determined to be present,		and on the Ruddick Tract.
its location should be reported to the manager of		
the appropriate database.		
6.2.b When RTE species are present or assumed to	С	Chesapeake Forest / Pocomoke State Forest Habitat
be present, modifications in management are made		management is an increasing portion of the role of the
in order to maintain, restore or enhance the extent,		Heritage Ecologist. Areas that have been managed in recent
quality and viability of the species and their		years need to be surveyed to assess success, and numerous
habitats. Conservation zones and/or protected		additional areas have been /are being managed for RTE
areas are established for RTE species, including		species or habitat. The most significant of these are the
those S3 species that are considered rare, where		Brookview Ponds ESA, Wango Pines ESA, and Powell Road
they are necessary to maintain or improve the		Seeps ESA. Final harvests and thinning occur adjacent to
short and long-term viability of the species.		and sometimes within these habitats.
Conservation measures are based on relevant		Green Ridge State Forest One ecological restoration
science, guidelines and/or consultation with		project occurred within an ESA Shale Barren. Sole purpose
relevant, independent experts as necessary to		of the management activity was to restore/enhance rare
achieve the conservation goal of the Indicator.		habitat/plant community.
		Potomac Garrett State Forest All management activities
		that would potentially impact RTE species were field
		verified by the Heritage ecologists as not have an impact.

		See OBS 2015.2.
6.2.c For medium and large public forests (e.g. state forests), forest management plans and operations are designed to meet species' recovery goals, as well as landscape level biodiversity conservation goals.	С	The requirements of this section of the standard are primarily accomplished through the ID team process described in detail elsewhere in this report. Harvest operations and restoration projects are reviewed by Heritage members of the ID team. Restoration projects for specific sites are listed within each Annual Work Plan. Evidence of conformance: For example, the Delmarva Bay Restoration and Shale Barren restoration projects (see Audit Itinerary).
6.2.d Within the capacity of the forest owner or manager, hunting, fishing, trapping, collecting and other activities are controlled to avoid the risk of impacts to vulnerable species and communities (See Criterion 1.5).	С	Chesapeake Forest / Pocomoke State Forest There was one instance of illegal ATV use with significant impact on RTE species and natural communities. Natural Resource Police were notified of this violation and are patrolling the area. This issue involved significant ATV damage at a few Delmarva Bays and a Wetlands of Special State Concern at Brookview Ponds ESA. Buffering and/or special harvesting prescriptions are employed to protect these resources.
6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.	С	
6.3.a.1 The forest owner or manager maintains, enhances, and/or restores under-represented successional stages in the FMU that would naturally occur on the types of sites found on the FMU. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is managed to enhance and/or restore old growth characteristics.	C	Chesapeake Forest / Pocomoke State Forest RSA's have been identified and recorded in the GIS. Early successional & ESA's are being managed by WHS guidelines. Potomac Garrett State Forest The seedling/sapling succession stage of hardwood forests could be considered under represented. As such, mngt. work, planned within the AWPs is generally focused on regeneration of hardwood forests and enhancing this stage of forest growth. Distribution if approx.;(Forest wide/general mngt) Seed/sap=6/10%; poles=15/9%; sawtimber=80/75% Green Ridge State Forest Shale barren restoration See 6.2.b and 6.2.c.
present, modifications are made in both the management plan and its implementation in order to maintain, restore or enhance the viability of the community. Based on the vulnerability of the		

existing community, conservation zones and/or protected areas are established where warranted. С **6.3.a.3** When they are present, management No management activity has occurred in or near any old maintains the area, structure, composition, and growth stands 2014-15 according to interviews with MD processes of all Type 1 and Type 2 old growth. DNR staff. Type 1 and 2 old growth are also protected and buffered as necessary with conservation zones, Type 1 and Type 2 old growth forests have been identified unless an alternative plan is developed that and protected as mapped in the State Forest management provides greater overall protection of old growth plans for each of the five state forests. Confirmed that old values. growth layers appear in the GIS layer for PSF, CSF, GRSF, PGSF and SRSF. The Policy and Procedures Handbook, Type 1 Old Growth is protected from harvesting Appendix F Management Guidelines for the Conservation and road construction. Type 1 old growth is also and Protection of Old Growth Forests and details contained protected from other timber management in each State Forest management plan (Chapter 3) covers activities, except as needed to maintain the any old growth. ecological values associated with the stand, including old growth attributes (e.g., remove exotic Note that MD DNR's classification of old growth may species, conduct controlled burning, and thinning include second growth areas that have been identified as from below in dry forest types when and where important to the development of late-seral stands. Many restoration is appropriate). of these areas may not meet the FSC definitions for Type 1 and Type 2, but support MD DNR's conformance to 6.3.a.1. Type 2 Old Growth is protected from harvesting to the extent necessary to maintain the area, structures, and functions of the stand. Timber harvest in Type 2 old growth must maintain old growth structures, functions, and components including individual trees that function as refugia (see Indicator 6.3.g). On public lands, old growth is protected from harvesting, as well as from other timber management activities, except if needed to maintain the values associated with the stand (e.g., remove exotic species, conduct controlled burning, and thinning from below in forest types when and where restoration is appropriate). On American Indian lands, timber harvest may be permitted in Type 1 and Type 2 old growth in

recognition of their sovereignty and unique ownership. Timber harvest is permitted in

situations where:

1. Old growth forests comprise a significant portion of the tribal ownership. 2. A history of forest stewardship by the tribe exists. 3. High Conservation Value Forest attributes are maintained. 4. Old-growth structures are maintained. 5. Conservation zones representative of old growth stands are established. 6. Landscape level considerations are addressed. 7. Rare species are protected. **6.3.b** To the extent feasible within the size of the C **Chesapeake Forest / Pocomoke State Forest | D14** ownership, particularly on larger ownerships Indiantown-Brookview Ponds ESA Project, WR12 Purnell-(generally tens of thousands or more acres), ESA Project. management maintains, enhances, or restores **Green Ridge State Forest** | Removal of overgrown white habitat conditions suitable for well-distributed pine plantations in the Kirk Orchard Early Succession populations of animal species that are Wildlife Habitat Management Area. Overgrown white pine characteristic of forest ecosystems within the plantations were removed, windrow brush piles were generated with debris and series of hard needle conifer landscape. seedlings, fruit trees, and openings were established to enhance American woodcock habitat and other early succession wildlife habitat. **Potomac Garrett State Forest** | A)-RGS Grant funded: Habitat improvements, to permanent grassy openings via planting a grass legume mix, lime and fertilizer to make these small openings as productive as possible for a variety of birds and animals that utilize these openings. B) – "Feathered Edge Cut" around perimeter of wildlife food plot/ grassy opening in handicapped hunter area of Kindness Demo Forest Area. This work marked and in contract negotiations to carry out this marginally commercial habitat improvement work by end of FY. C) – all planned and completed timber harvests include wildlife habitat improvement elements, often leaning toward providing additional early succession habitat critical to a variety of species in need of conservation: including Gold winged Warblers, American Woodcock, etc. **Savage River State Forest** | Thinning operations created a flux of understory vegetation which will benefit a variety of wildlife species. **6.3.c** Management maintains, enhances and/or Chesapeake Forest / Pocomoke State Forest | One-third of

resto	ores the plant and wildlife habitat of <i>Riparian</i>		final harvests and thinning occur adjacent to or within the
Man	agement Zones (RMZs) to provide:		300 foot SMZ buffer.
a)	habitat for aquatic species that breed in		Potomac Garrett State Forest See AWP maps re. HCVF
	surrounding uplands;		blue line stream/wetlands protection.
b)	habitat for predominantly terrestrial species		Savage River State Forest an occasional bridged stream
	that breed in adjacent aquatic habitats;		crossing (permitted by MD Depart. of Environment)
c)	habitat for species that use riparian areas for		
	feeding, cover, and travel;		
d)	habitat for plant species associated with		
	riparian areas; and,		
e)	stream shading and inputs of wood and leaf		
	litter into the adjacent aquatic ecosystem.		
Stan	d-scale Indicators	С	Within the eastern region, an abundance of loblolly pine
6.3.0	Management practices maintain or enhance		exists and management practices (e.g., retain and release
plan	t species composition, distribution and		oaks) are designed to decrease the relative abundance of
freq	uency of occurrence similar to those that would		loblolly over time and increase the presence of other native
natu	rally occur on the site.		species as confirmed through field observations (see Audit
			Itinerary).
			Within the western region, the audit team observed
			instances of promoting early successional habitat in oak
			regeneration and shale barren restoration areas.
6.3.6	When planting is required, a local source of	С	Chesapeake Forest / Pocomoke State Forest The seed
knov	vn provenance is used when available and		source for loblolly pine seedlings is Maryland. The seed
whe	n the local source is equivalent in terms of		source for shortleaf pine seedlings is Missouri. Shortleaf
qual	ity, price and productivity. The use of non-local		has a bimodal distribution within Maryland (coastal and
sour	ces shall be justified, such as in situations		mountain).
whe	re other management objectives (e.g. disease		Potomac Garrett State Forest Couple hundred red oak
resis	tance or adapting to climate change) are best		seedlings planted as supplemental planting in Deer
serv	ed by non-local sources. <i>Native species</i> suited		Exclosure. Seedlings from MD State Nursery, with seed
to th	e site are normally selected for regeneration.		collected in MD.
6.3.f	Management maintains, enhances, or	С	On the Eastern shore (see Audit Itinerary), snags, hardwood
resto	ores habitat components and associated stand		retention, and woody debris were observed on all pine
stru	ctures, in abundance and distribution that		harvest sites. Operators are provided with guidelines on
coul	d be expected from naturally occurring		what elements to retain throughout the stands.
proc	esses. These components include:		
a)	large live trees, live trees with decay or		See response to Minor CAR 2014.7 for the Western Region.
	declining health, <i>snags</i> , and well-distributed		
	coarse down and dead woody material. <i>Legacy</i>		
	trees where present are not harvested; and		
b)	vertical and horizontal complexity.		

Trees selected for <i>retention</i> are generally		
representative of the dominant species found on		
the site.		
6.3.g.1 In the Southeast, Appalachia, Ozark-	С	Chesapeake Forest / Pocomoke State Forest Four even-
Ouachita, Mississippi Alluvial Valley, and Pacific		aged harvests totaling 138 acres were completed or were
Coast Regions, when even-aged systems are		started this year. Some difficulty in retaining understory
employed, and during salvage harvests, live trees		oaks in one five acre area was encountered. This was
and other native vegetation are retained within the		primarily due to the high volume of timber being harvested
harvest unit as described in Appendix C for the		on that particular 5 acres.
applicable region.		Green Ridge State Forest Two of the even-aged
		regeneration harvests that were complete since the past
In the Lake States Northeast, Rocky Mountain and		audit were also salvage harvests where barely any oaks
Southwest Regions, when even-aged silvicultural		remained alive making it difficult to retain living oaks.
systems are employed, and during salvage harvests,		Potomac Garrett State Forest 26 ac. regen harvest in
live trees and other native vegetation are retained		Comp. 16-2 only regen. harvest completed since last audit,
within the harvest unit in a proportion and		though others under contract. No issues with retention.
configuration that is consistent with the		Savage River State Forest Conifer Regeneration harvest
characteristic natural disturbance regime unless		off Bowman Hill Road. No problem retaining standing live
retention at a lower level is necessary for the		conifers and downed woody debris.
purposes of restoration or rehabilitation. See		
Appendix C for additional regional requirements		See response to Minor CAR 2014.7 for the Western Region.
and guidance.		
6.3.g.2 Under very limited situations, the	С	There are no limitations on opening size limits in the
landowner or manager has the option to develop a		Southeastern regional indicators; however, there are
qualified plan to allow minor departure from the		suggested opening size limits (80 acres). The average
opening size limits described in Indicator 6.3.g.1. A		clearcut size is 40 acres, but MD DNR has had openings that
qualified plan:		range from 120-160 acres in the case of restoration of
1. Is developed by qualified experts in ecological		wetland ecosystems where pine was planted or invaded
and/or related fields (wildlife biology,		after disturbance.
hydrology, landscape ecology,		
forestry/silviculture).		For the Western Region, there have been no departures; all
2. Is based on the totality of the best available		harvests contain retention elements required in 6.3.g.1 and
information including peer-reviewed science		Appalachian regional indicators.
regarding natural disturbance regimes for the		
FMU.		
3. Is spatially and temporally explicit and includes		
maps of proposed openings or areas.		
4. Demonstrates that the variations will result in		
equal or greater benefit to wildlife, water		
quality, and other values compared to the		
normal opening size limits, including for		

sensitive and rare species.		
5. Is reviewed by independent experts in wildlife		
biology, hydrology, and landscape ecology, to		
confirm the preceding findings.		
6.3.h The forest owner or manager assesses the	С	Chesapeake Forest / Pocomoke State Forest Power
risk of, prioritizes, and, as warranted, develops and		washing equipment prior to harvest. Backpack sprayed a
implements a strategy to prevent or control		total of 54.6 acres of invasive species. Locations are stored
invasive species, including:		within GIS.
a method to determine the extent of invasive		Green Ridge State Forest Herbicide treatment of
species and the degree of threat to native		ailanthus in and around shale barren restoration sites to
species and ecosystems;		remove ailanthus from barrens and eliminate nearby seed
2. implementation of management practices that		sources.
minimize the risk of invasive establishment,		Potomac Garrett State Forest Monitored and treated 16
growth, and spread;		NNIS occurrences, addressed via. FME's policy of Early
3. eradication or control of established invasive		Detection–Rapid Response, accounting for 55 ac. of treated
populations when feasible: and,		area.
monitoring of control measures and		Savage River State Forest Japanese knotweed control
management practices to assess their		measures taken along road way.
effectiveness in preventing or controlling		measures taken along road way.
invasive species.		
6.3.i In applicable situations, the forest owner or	С	Chesapeake Forest / Pocomoke State Forest Two Rx
manager identifies and applies site-specific fuels		burns occurred this past year for ESA restoration purposes.
management practices, based on: (1) natural fire		Green Ridge State Forest 35-acre prescribed
regimes, (2) risk of wildfire, (3) potential economic		woodland/shale barren restoration fire, approximately 10
losses, (4) public safety, and (5) applicable laws and		acres warm season grass establishment/maintenance
regulations.		prescribed fires.
regulations.		Potomac Garrett State Forest No fires on PGSF this yr.
		Savage River State Forest Warm season grass burns
		conducted by the Wildlife service. No wildfires.
6.4. Representative samples of existing	NE	
ecosystems within the landscape shall be		
protected in their natural state and recorded on		
maps, appropriate to the scale and intensity of		
operations and the uniqueness of the affected		
resources.		
6.5 Written guidelines shall be prepared and	С	
implemented to control erosion; minimize forest		
damage during harvesting, road construction, and		
all other mechanical disturbances; and to protect		
water resources.		
6.5.a The forest owner or manager has written	С	BMP checklists are filled out prior to each planned
	1	

guidelines outlining conformance with the Indicators of this Criterion.		management activity. SFMP and state storm water design manual serve as general guidelines. Certain state forests, such as those in the Western Region, have their own BMP manual adapted to regional conditions.
6.5.b Forest operations meet or exceed Best	С	FORESTRY BEST MANAGEMENT PRACTICES IN MARYLAND:
Management Practices (BMPs) that address		Implementation and Effectiveness for Protection
components of the Criterion where the operation		of Water Resources
takes place.		http://www.na.fs.fed.us/watershed/pubs/bmp/09_md_bm
		p_report.pdf
		During an interview with the MD DNR's forest hydrologist,
		it was confirmed that another statewide BMP study is to
		occur soon.
6.5.c Management activities including site	С	MD DNR's BMP guidelines are implemented to protect soil
preparation, harvest prescriptions, techniques,		and water resources during management activities. During
timing, and equipment are selected and used to		site visits in 2015, for both the Western and Eastern
protect soil and water resources and to avoid		Regions, slash was dispersed relatively evenly over harvest sites due to removal of tops immediately after felling.
erosion, landslides, and significant soil disturbance.		Options for slash control include use of slash to meet BMPs,
Logging and other activities that significantly		crushing, natural decay, and prescribed fire.
increase the risk of landslides are excluded in areas		
where risk of landslides is high. The following		No excessive topsoil disturbance was observed on harvest
actions are addressed:		sites visited. Areas of disturbed topsoil observed were not
Slash is concentrated only as much as		draining into water courses and are for the purposes of regeneration.
necessary to achieve the goals of site		regeneration.
preparation and the reduction of fuels to		Rutting in the Eastern Region was within established limits
moderate or low levels of fire hazard.		set by BMP standards and was limited to principal skid
Disturbance of topsoil is limited to the		trails. No excessive rutting was observed in the Western
minimum necessary to achieve successful		Region.
regeneration of species native to the site.		BMPs were installed at harvest sites in both regions to
Rutting and compaction is minimized.		control erosion.
Soil erosion is not accelerated.		
Burning is only done when consistent with		Whole tree harvesting is not currently in use. Lowest
natural disturbance regimes.		impact equipment is used when available and appropriate
Natural ground cover disturbance is minimized		for site conditions. Loggers sometimes use slash during harvesting on skid trails or for temporary crossings it can
to the extent necessary to achieve		significantly reduce negative impacts without sacrificing
regeneration objectives.		safety and efficiency.
Whole tree harvesting on any site over		
multiple rotations is only done when research		
indicates soil productivity will not be harmed.		
Low impact equipment and technologies is		
used where appropriate.		
6.5.d The transportation system, including design	С	See OBS 2015.3.

and placement of permanent and temporary haul		
roads, skid trails, recreational trails, water crossings		
and landings, is designed, constructed, maintained,		
and/or reconstructed to reduce short and long-		
term environmental impacts, habitat		
fragmentation, soil and water disturbance and		
cumulative adverse effects, while allowing for		
customary uses and use rights. This includes:		
access to all roads and trails (temporary and		
permanent), including recreational trails, and		
off-road travel, is controlled, as possible, to		
minimize ecological impacts;		
 road density is minimized; 		
erosion is minimized;		
 sediment discharge to streams is minimized; 		
there is free upstream and downstream		
passage for aquatic organisms;		
impacts of transportation systems on wildlife		
habitat and migration corridors are minimized;		
area converted to roads, landings and skid		
trails is minimized;		
 habitat fragmentation is minimized; 		
 unneeded roads are closed and rehabilitated. 		
6.5.e.1 In consultation with appropriate expertise,	С	See response to Minor CAR 2014.8.
the forest owner or manager implements written		
Streamside Management Zone (SMZ) buffer		
management guidelines that are adequate for		
preventing environmental impact, and include		
protecting and restoring water quality, hydrologic		
conditions in rivers and stream corridors, wetlands,		
vernal pools, seeps and springs, lake and pond		
shorelines, and other hydrologically sensitive areas.		
The guidelines include vegetative buffer widths and		
protection measures that are acceptable within		
those buffers.		
In the Appalachia, Ozark-Ouachita, Southeast,		
Mississippi Alluvial Valley, Southwest, Rocky		
Mountain, and Pacific Coast regions, there are		
requirements for minimum SMZ widths and explicit		
limitations on the activities that can occur within		

those SMZs. These are outlined as requirements in Appendix E.		
6.5.e.2 Minor variations from the stated minimum SMZ widths and layout for specific stream segments, wetlands and other water bodies are permitted in limited circumstances, provided the forest owner or manager demonstrates that the alternative configuration maintains the overall extent of the buffers and provides equivalent or greater environmental protection than FSC-US regional requirements for those stream segments, water quality, and aquatic species, based on site-specific conditions and the best available information. The forest owner or manager develops a written set of supporting information including a description of the riparian habitats and species addressed in the alternative configuration. The CB must verify that the variations meet these requirements, based on the input of an independent expert in aquatic ecology or closely related field. 6.5.f Stream and wetland crossings are avoided when possible. Unavoidable crossings are located	С	All crossings observed were installed according to specification and only when necessary to access areas for
and constructed to minimize impacts on water quality, hydrology, and fragmentation of <i>aquatic habitat</i> . Crossings do not impede the movement of aquatic species. Temporary crossings are restored to original hydrological conditions when operations are finished.		management and monitoring activities. Bridges or culverts are used for crossings. Appropriate sized culverts were observed, which did not impede aquatic organisms.
6.5.g Recreation use on the FMU is managed to avoid negative impacts to soils, water, plants, wildlife and wildlife habitats.	С	Most ORV trails have been closed. Trail maintenance for other user groups such as mountain bikers and equestrian is accomplished through grants and volunteers of those groups interested in maintaining access. New ORV trails are in the works in the Western Region in cooperation with user groups and environmental stakeholders to ensure that impacts are controlled and reduced (see itinerary for more information).
6.5.h Grazing by domesticated animals is controlled to protect in-stream habitats and water quality, the species composition and viability of the riparian vegetation, and the banks of the stream channel from erosion.	С	No grazing is permitted on State Forests. No grazing by domesticated animals was detected during site visits or reported during stakeholder interviews.

6.6. Management systems shall promote the	С	
development and adoption of environmentally		
friendly non-chemical methods of pest		
management and strive to avoid the use of		
chemical pesticides. World Health Organization		
Type 1A and 1B and chlorinated hydrocarbon		
pesticides; pesticides that are persistent, toxic or		
whose derivatives remain biologically active and		
accumulate in the food chain beyond their		
intended use; as well as any pesticides banned by		
international agreement, shall be prohibited. If		
chemicals are used, proper equipment and		
training shall be provided to minimize health and		
environmental risks.		
6.6.a No products on the FSC list of Highly	С	Only arsenal (imazypyr) and oust (sulfometuron methyl)
Hazardous Pesticides are used (see FSC-POL-30-001		have been applied this year, which are both allowed.
EN FSC Pesticides policy 2005 and associated		
documents).		
6.6.b All toxicants used to control pests and	С	See response to Minor CAR 2014.9.
competing vegetation, including rodenticides,		
insecticides, herbicides, and fungicides are used		
only when and where non-chemical management		
practices are: a) not available; b) prohibitively		
expensive, taking into account overall		
environmental and social costs, risks and benefits;		
c) the only effective means for controlling invasive		
and exotic species; or d) result in less		
environmental damage than non-chemical		
alternatives (e.g., top soil disturbance, loss of soil		
litter and down wood debris). If chemicals are used,		
the forest owner or manager uses the least		
environmentally damaging formulation and		
application method practical.		
Written strategies are developed and implemented		
that justify the use of chemical pesticides.		
Whenever feasible, an eventual phase-out of		
chemical use is included in the strategy. The written		
strategy shall include an analysis of options for, and		
the effects of, various chemical and non-chemical		
pest control strategies, with the goal of reducing or		

eliminating chemical use.		
6.6.c Chemicals and application methods are selected to minimize risk to non-target species and sites. When considering the choice between aerial and ground application, the forest owner or manager evaluates the comparative risk to non-target species and sites, the comparative risk of worker exposure, and the overall amount and type of chemicals required.	С	On the Maryland shore, most planned chemical treatments are by helicopter. This officers a higher level of control than other aerial crafts. For example, on a planned treatment site visited (WR24 Johnson & Johnson), strips of high oak-density are planned to be excluded from the treatment. See SFMPs, which describe situation in which aerial application occurs and what precautions will be applied during application to protect sensitive sites and non-target species. Aerial applicators are highly trained, licensed, and enclosed in helicopters during applications. Staff apply glyphosate or imazypyr using the hack 'n' squirt method, which is among the most direct methods and lowest risk for worker exposure.
6.6.d Whenever chemicals are used, a written prescription is prepared that describes the site-specific hazards and environmental risks, and the precautions that workers will employ to avoid or minimize those hazards and risks, and includes a map of the treatment area. Chemicals are applied only by workers who have received proper training in application methods and safety. They are made aware of the risks, wear proper safety equipment, and are trained to minimize environmental impacts on non-target species and sites.	C	See OBS 2015.4. FME's forestry contractor on the Maryland Shore, Parker Forestry, demonstrated written prescriptions for 2014-15 that meet this requirement, including maps of treatment areas that show site-specific hazards. The summary document (Chesapeake & Pocomoke Forests Herbicide Release 2014) includes some descriptions of management type (e.g. Delmarva fox squirrel area). See response to Minor CAR 2014.9.
6.6.e If chemicals are used, the effects are monitored and the results are used for adaptive management. Records are kept of pest occurrences, control measures, and incidences of worker exposure to chemicals.	С	Parker Forestry demonstrated records of planned and completed chemical treatments in its offices. One plan was completed since the last audit, an aerial spray completed in October 2014. It includes amount and type of chemical. No follow-up monitoring has been completed yet since a full-growing season has not occurred (i.e., sufficient time for arsenal to fully work). GPS data is taken by helicopter-applicators and provided to Parker Forestry, which shows spray lines (i.e., where), what

		chemical was applied, and how much.
		Records of chemical use are maintained and are reported in
		the Section A of the FSC report. FME workers that suffer a
		chemical exposure incident must fill out incident reports.
6.7. Chemicals, containers, liquid and solid non-	NE	
organic wastes including fuel and oil shall be		
disposed of in an environmentally appropriate		
manner at off-site locations.		
6.8. Use of biological control agents shall be	NE	
documented, minimized, monitored, and strictly		
controlled in accordance with national laws and		
internationally accepted scientific protocols. Use		
of genetically modified organisms shall be		
prohibited.		
6.9. The use of exotic species shall be carefully	С	
controlled and actively monitored to avoid		
adverse ecological impacts.		
6.9.a The use of <i>exotic species</i> is contingent on the	С	No exotic species are used for commercial or management
availability of credible scientific data indicating that		purposes in the Eastern region. In the Western Region,
any such species is non-invasive and its application		Norway Spruce and Red Pine exist in legacy plantations that
does not pose a risk to native biodiversity.		are being managed on a trajectory for restoration of mixed native conifer and hardwood stands.
6.9.b If exotic species are used, their provenance	С	The Norway Spruce and Red Pine plantations were
and the location of their use are documented, and		established several decades ago. No offsite regeneration is
their ecological effects are actively monitored.		occurring and plans have been developed to restore these
C.O. a The forest owner or manager shall take timely	6	areas to semi-natural management.
6.9.c The forest owner or manager shall take timely	С	No adverse impacts have been detected from the exotic species mentioned in 6.9.a-b.
action to curtail or significantly reduce any adverse		species mentioned in 0.5.4 b.
impacts resulting from their use of exotic species	NE	
6.10. Forest conversion to plantations or non- forest land uses shall not occur, except in	NE	
circumstances where conversion:		
a) Entails a very limited portion of the forest		
management unit; and b) Does not occur on High		
Conservation Value Forest areas; and c) Will		
enable clear, substantial, additional, secure, long-		
term conservation benefits across the forest		
management unit.		
Principle #7: A management plan appropriate to t	he scale a	and intensity of the operations shall be written,
implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be		
clearly stated. 7.1. The management plan and supporting	С	The general structure of the FMP is based on each state

forest with the structure and content of the documents documents shall provide: a. Management objectives. b) description of the being based on the same templates. Each state forest forest resources to be managed, within the scope of the FSC certificate has an overarching environmental limitations, land use and Sustainable Forest Management Plan (SFMP) and Annual ownership status, socio-economic conditions, Work Plans (AWP) prepared for management activities to and a profile of adjacent lands. occur in the upcoming fiscal year. Summaries of the AWPs b. Description of silvicultural and/or other are also prepared. management system, based on the ecology of the forest in question and information Chesapeake and Pocomoke State Forests additionally have gathered through resource inventories. d) individual summaries for their SFMPs and other supporting Rationale for rate of annual harvest and documentation available online as they have been certified species selection. e) Provisions for monitoring for longer periods of time. of forest growth and dynamics. f) Environmental safeguards based on MD DNR also maintains a Policy Handbook and procedures environmental assessments. g) Plans for the for implementing certain components of the FMP. identification and protection of rare, threatened and endangered species. b) h) Maps describing the forest resource base including protected areas, planned management activities and land ownership. i) Description and justification of harvesting techniques and equipment to be used. C **7.1.a** The management plan identifies the Each SFMP includes a section on the history of the state ownership and legal status of the FMU and its forest, along with an ownership history. Allowable public uses are described in the Chapter 9 of each SFMP. Each resources, including rights held by the owner and FMP contains tables and figures on land use within and rights held by others. surrounding state forests. C Each SFMP includes a section on the history of the state **7.1.b** The management plan describes the history forestlands. Chapters 2, 3 and 4 of each SFMP include a of land use and past management, current forest description of the current forest resource and guidelines on types and associated development, size class management based on natural disturbance regimes. and/or successional stages, and natural disturbance Certain appendices may also cover special disturbance regimes that affect the FMU (see Indicator 6.1.a). regimes, such as fire. The AWP includes a brief description of past land uses and management as an introduction for the basis of the planned management activities for the fiscal year. **7.1.c** The management plan describes: Chapters 2-8 of each SFMP (Resource Assessment, Resource Characterization, Land Management Area a) current conditions of the timber and non-timber Guidelines, Forest Management, Water Quality, Ecologically forest resources being managed; b) desired future Significant Areas, and Wildlife Habitat). Objectives are conditions; c) historical ecological conditions; and stated in various chapters; however, Chapter 5 includes d) applicable management objectives and activities management objectives of forest management/ silviculture. to move the FMU toward desired future conditions.

7.1.d The management plan includes a description of the landscape within which the FMU is located and describes how landscape-scale habitat elements described in Criterion 6.3 will be addressed.	С	The AWP includes a description of the current conditions of resources and what will be done in the fiscal year to accomplish desired future conditions based on a given state forest's ecology or past management. See Chapters 2-8 of each SFMP (Resource Assessment, Resource Characterization, Land Management Area Guidelines, Forest Management, Water Quality, Ecologically Significant Areas, and Wildlife Habitat). The AWP provides a description in the summary. While a non-conformance is found in section 6.3.g.1 that is associated with management activities, it should be noted
		that the required information is found in each SFMP and
 7.1.e The management plan includes a description of the following resources and outlines activities to conserve and/or protect: rare, threatened, or endangered species and natural communities (see Criterion 6.2); plant species and community diversity and wildlife habitats (see Criterion 6.3); water resources (see Criterion 6.5); soil resources (see Criterion 6.3); Representative Sample Areas (see Criterion 6.4); High Conservation Value Forests (see Principle 9); Other special management areas. 	C	AWP including in this case a description of retention. Chapters 2-8 of each SFMP (Resource Assessment, Resource Characterization, Land Management Area Guidelines, Forest Management, Water Quality, Ecologically Significant Areas, and Wildlife Habitat). The AWP includes descriptions of activities planned to protect or enhance RTE species, plant communities (e.g.,, Atlantic white-cedar swamps), wildlife, water and soil resources (e.g., soil series appendix), RSAs, and HCVs. Other management areas are described depending on each state forest's resources (e.g., ORV trails).
7.1.f If invasive species are present, the management plan describes invasive species conditions, applicable management objectives, and how they will be controlled (see Indicator 6.3.j).	С	Chapters 3 and 5 of each SFMP include a section on invasive species based on FSC-US guidelines.
7.1.g The management plan describes insects and diseases, current or anticipated outbreaks on forest conditions and management goals, and how insects and diseases will be managed (see Criteria 6.6 and 6.8).	С	Each SFMP treats insects and diseases in its Resource Assessment and Characterizations (Chapters 2 and 3), but mostly throughout the SFMPs and especially when dealing with fire.
7.1.h If chemicals are used, the plan describes what is being used, applications, and how the management system conforms with Criterion 6.6.	С	Herbicide use is described in Chapters 5, 6, 7 and 10 of the SFMP. Each of these Chapters describes basic use and restrictions near sensitive sites.
		Some SFMPs and AWPs describe some of the chemicals to

7.1.i If biological controls are used, the	С	be used (GRSF MP page 202 'Ailanthus trees will be treated using basal bark applications of Garlon 4 20% or cut treatment of Vanquish (50%)" and GRSF AWP page 39 "Japanese barberry will be foliar sprayed with Garlon 3-A"). The former prescription is specific to Kirk Orchard and the latter is specific to stands located within Shale Barren Communities; however, other chemical prescriptions are not specific as required by this section of the standard. CF-PSF AWP (page 60) includes a prescription for chemical use and does not include all details required by this section of the standard. This FME has a nonconformance to some indicators of C6.6 its chemical use strategy may change as a result of the nonconformance, which may require an update to sections of the management plan. See response to OBS 2014.10. Biological control is maintained as an option in Chapter 10
management plan describes what is being used, applications, and how the management system conforms with Criterion 6.8.	C	of each SFMP. Other State and Federal agencies are in charge of biological control on MD DNR-managed lands. See C6.8 for more details.
 7.1.j The management plan incorporates the results of the evaluation of social impacts, including: traditional cultural resources and rights of use (see Criterion 2.1); potential conflicts with customary uses and use rights (see Criteria 2.2, 2.3, 3.2); management of ceremonial, archeological, and historic sites (see Criteria 3.3 and 4.5); management of aesthetic values (see Indicator 4.4.a); public access to and use of the forest, and other recreation issues; local and regional socioeconomic conditions and economic opportunities, including creation and/or maintenance of quality jobs (see Indicators 4.1.b and 4.4.a), local purchasing opportunities (see Indicator 4.1.e), and participation in local development opportunities (see Indicator 4.1.g). 	С	 Sections of Chapter 2 of western MD SFMPs and Chapter 9 of CFL SFMP include descriptions of traditional cultural resources and rights of use. Sections of Chapter 11 of each western MD SFMP and Chapters 1, 9 and 10 of CFL SFMP describe potential conflicts. Each of the 5 management plans include text from state code that requires protection of these special sites. Chapter 2 of each SFMP describes sites and GIS data points have been established. Sections of Chapter 11 include a description of the process and time table for consultation and review by representatives of tribal groups. Individual AWPs also include details associated with aesthetics (Kirk Orchard). During the 2014 audit, the protection of special sites (Old homesteads and fenced Walker Cemetery and the North Craft Cemetery) were observed. The fencing had been replaced about 5 years ago. Maps of cemeteries and other special sites were presented and reviewed for 1 State Forest on the eastern shore and 1 State Forest located in western MD.

		Aesthetic values are introduced in Chapter 1 and
		described in Chapter 5 within some of descriptions of
		forest management activities (e.g. forest buffer thinning,
		regeneration harvest) and in the some of the AWPs (Kirk
		Orchard).
		Chapter 9 and sections of Chapter 10 of each SFMP
		includes public access, use and education
		Local and regional economic condition and opportunity are introduced in Chapter 1 and described in sections of
		chapters 2, 3, 4, 5, 8 and 9 of each SFMP. Chapter 1 of each
		SFMP includes the following text: "The primary goal of the
		Green Ridge State Forest Sustainable Management Plan is
		to demonstrate that an environmentally sound, sustainably
		managed forest can contribute to local and regional economies" A recent study cited in each SFMP also
		addresses some of this indicator: see Comprehensive
		Strategy for Reducing Maryland's Vulnerability to Climate
		Change, Phase II: Building societal, economic, and
		ecological resilience (Jan 2011)
		http://www.dnr.state.md.us/climatechange/climatechange
		_phase2_adaptation_strategy.pdf
		The AWP's summary includes a description of maintenance
		and protections needs for archeological and historic sites.
		The AWP includes descriptions of special projects, their
		costs, and intended benefits. Many special projects are for
		ecological restoration, public education, road/ trail
		upgrades for management and recreation.
7.1.k The management plan describes the general	С	Chapters 5, 6 and 9 of the SFMP cover this topic.
purpose, condition and maintenance needs of the		The AWP's summary includes a description of road
transportation network (see Indicator 6.5.e).		conditions and planned maintenance activities based on said conditions.
7.1. I The management plan describes the	С	Chapter 5 of the SFMP discusses silvicultural systems based
silvicultural and other management systems used		on the resource assessment. Other management systems,
and how they will sustain, over the long term,		such as those used to control access or maintain protected
forest ecosystems present on the FMU.		areas, are dealt with in other chapters.
Torest ecosystems present on the rivio.		areas, are deart with in other chapters.
		See response to OBS 2014.10.
7.1.m The management plan describes how species	С	Chapter 5 of the SFMP discusses forest inventory and how
selection and harvest rate calculations were		harvest rates are determined. Tables and figures of
developed to meet the requirements of Criterion		inventory and projected harvests are included SFMP.
5.6.		
7.1.n The management plan includes a description	С	Certain monitoring is covered throughout the SFMP, but

of monitoring procedures necessary to address the		Chapters 5 and 10 deal specifically with the subject of
requirements of Criterion 8.2.		monitoring.
7.1.0 The management plan includes maps describing the resource base, the characteristics of general management zones, special management areas, and protected areas at a level of detail to achieve management objectives and protect sensitive sites.	С	MD DNR maintains maps on GIS and many maps are available online to the public that address this indicator. Detailed maps are available in the SFMP and AWP for each state forest.
7.1.p The management plan describes and justifies	С	See response to Minor CAR 2014.11.
the types and sizes of harvesting machinery and techniques employed on the FMU to minimize or limit impacts to the resource.		
7.1.q Plans for harvesting and other significant sitedisturbing management activities required to carry out the management plan are prepared prior to implementation. Plans clearly describe the activity, the relationship to objectives, outcomes, any	С	AWP's summary includes goals for the upcoming fiscal year's management activities. AWP includes a description of proposed management activities, such as sivilcultural prescriptions. The prescriptions include an analysis of resources that could be impacted and how to
necessary environmental safeguards, health and safety measures, and include maps of adequate detail.		reduce/mitigate those risks, as well as objectives and desired outcomes. Pre-sale conferences are held in which a checklist is filled out by loggers and MD DNR staff to review
		the sale prior to operations. Sediment and erosion control permits may also be required prior to plan implementation and are considered a part of the site-plan.
		See response to Minor CAR 2014.11.
7.1.r The management plan describes the stakeholder consultation process.	С	The SFMP describes the role of the Citizens Advisory Committee for each state forest in the development of the plan (Appendix A). The SFMP also includes a flow chart on how AWPs are developed, including when stakeholder consultation and review occurs.
		The AWP's summary includes a description of how MD DNR Forestry Division works with other agencies and local colleges/universities. Citizen Advisory Committee and public comments are included at the end of each AWP.
7.2 The management plan shall be periodically	С	
revised to incorporate the results of monitoring or		
new scientific and technical information, as well as		
to respond to changing environmental, social and		
economic circumstances.		
7.2.a The management plan is kept up to date. It is	С	See OBS 2015.5.

reviewed on an ongoing basis and is updated		
whenever necessary to incorporate the results of		
monitoring or new scientific and technical		
information, as well as to respond to changing		
environmental, social and economic circumstances.		
At a minimum, a full revision occurs every 10 years.		
7.3 Forest workers shall receive adequate training	NE	
and supervision to ensure proper implementation		
of the management plans.		
7.4 While respecting the confidentiality of	С	
information, forest managers shall make publicly		
available a summary of the primary elements of		
the management plan, including those listed in		
Criterion 7.1.		
7.4.a While respecting landowner confidentiality,	С	The entire management plan is available freely to the public
the management plan or a management plan		at http://www.dnr.state.md.us/forests/mdforests.asp .
summary that outlines the elements of the plan		
described in Criterion 7.1 is available to the public		
either at no charge or a nominal fee.		
7.4.b Managers of public forests make draft	С	All draft AWPs are available for comment at
management plans, revisions and supporting		http://www.dnr.state.md.us/forests/workplans/index.asp.
documentation easily accessible for public review		When SFMPs are up for revision, these also are made
and comment prior to their implementation.		available publicly through the website and submitted to the
Managers address public comments and modify the		Citizen Advisory Committee for review. Once draft plans
plans to ensure compliance with this Standard.		undergo complete public review, the revised plan becomes
·		the final plan presented on the website. See response to
		OBS 2014.12.
Principle #8: Monitoring shall be conducted appro	priate to	the scale and intensity of forest management to assess
	, chain of	custody, management activities and their social and
environmental impacts.	T	
8.1 The frequency and intensity of monitoring	NE	
should be determined by the scale and intensity of forest management operations, as well as, the		
relative complexity and fragility of the affected		
environment. Monitoring procedures should be		
consistent and replicable over time to allow		
comparison of results and assessment of change.		
8.2. Forest management should include the	С	
research and data collection needed to monitor,		
at a minimum, the following indicators: a) yield of		
all forest products harvested, b) growth rates,		

regeneration, and condition of the forest, c) composition and observed changes in the flora and fauna, d) environmental and social impacts of harvesting and other operations, and e) cost, productivity, and efficiency of forest management. **8.2.a.1** For all commercially harvested products, an Chesapeake Forest / Pocomoke State Forest | Collected inventory system is maintained. The inventory forest wide CFI data. Regeneration inspections and system includes at a minimum: a) species, b) seedling counts on past harvest sites. volumes, c) stocking, d) regeneration, and e) stand **Green Ridge State Forest** | Forest wide stand inventory and forest composition and structure; and f) timber project continued this past year. Data collection on approximately 9000 acres was completed. quality. Potomac Garrett State Forest | Completed 20% of the 5year, forest-wide forest inventory as planned. **Savage River State Forest** | On going forest inventory FME maintains an inventory system that covers the topics of this indicator. See 5.6.a for a description. Volume can be estimated from area control through use of site index ranges. The inventory system for the Eastern Region is about to be updated. The Western Region is four years into a five-year project to update its inventory system. SILVAH inventory is used for MD DNR acreage - even those that have been reserved from active timber management (e.g. ESA's or HCVF's). As described in each State Forest management plan, sample points for sensitive resources are selected through the use of random sampling or stratified random sampling. Cluster sampling is occasionally used for rare plants and monitoring may be ongoing or of limited duration. Broader monitoring efforts are part of the program as well. Standard methods available in federal or state manuals or published peer-reviewed research are used to collect data for the following resources: water quality indicators including for example stream nutrient

export, wetland condition, fish and aquatic macro

including (a) species; (b) volumes; ((c) stocking; (d)

invertebrate assemblages; forest stand condition indicators including for example vegetative structure and composition

regeneration; (e) stand composition and structure and (f) timber quality, invasive species, natural plant communities, insect and disease impacts, fuel loading and stand density;

8.2.a.2 Significant, unanticipated removal or loss or increased vulnerability of forest resources is monitored and recorded. Recorded information shall include date and location of occurrence, description of disturbance, extent and severity of loss, and may be both quantitative and qualitative.	С	rare, threatened and endangered species presence, diversity and abundance; and presence of invasive species that threaten the survival of rare, threatened or endangered species; natural community diversity metrics; and other indicators of ecosystem recovery and function. As confirmed through interviews with field foresters, regeneration surveys are conducted following regeneration treatments within one or two years for loblolly in the eastern region and after 3-5 years for hardwood stands in the western region. If regeneration surveys conclude that regeneration levels are not sufficient, planting or other measures are discussed. CFI summary and the stand data collection program (SILVAH protocol) are detailed in SFMP Chapter 12. The inventory and monitoring programs are linked to a GIS-based data management system. CFI summary and current stand data collection program (SILVAH OAK protocol in the western region) provides monitoring and records as confirmed through review of SFMP Chapter 12 and interviews. For example the 160-acre gypsy moth mortality (SR-01-11) was first documented in 2009 including a salvage prescription. Records are linked to the GIS-based data management system and include dates and locations, description of the gypsy moth and ice storm incident, acreage and percent mortality estimates including maps of the area. In another example > 400 acres of GRSF received overstory mortality that approaches 100% as a result of a Memorial Day 2011 hail storm. The affected areas are mapped. Records include required details. In the Western Region, the winter storms of 2011 led to much loss. Some of the affected areas were salvaged. FME detected the losses after post-storm monitoring.
		much loss. Some of the affected areas were salvaged. FME
8.2.b The forest owner or manager maintains records of harvested timber and NTFPs (volume	С	Chesapeake Forest / Pocomoke State Forest 49,710 tons Green Ridge State Forest 239,430 bf hardwood
·		l sawtimber, 28,180bf hard nine sawtimber, 577cds
and product and/or grade). Records must adequately ensure that the requirements under		sawtimber, 28,180bf hard pine sawtimber, 577cds hardwood pulp, 24 cds hard pine pulp.

sold 492,401 Bd. Ft. of timber. (AWP called for 552,000 Bd. Ft., difference lost to field delineated buffer and protective areas.)

Savage River State Forest | 353,427 Bd.Ft.

Ledgers, annual timber summaries and compartment files that relate to harvested timber are maintained in the state

8.2.c The forest owner or manager periodically obtains data needed to monitor presence on the FMU of:

- Rare, threatened and endangered species and/or their *habitats*;
- Common and rare plant communities and/or habitat;
- Location, presence and abundance of invasive species;
- Condition of protected areas, set-asides and buffer zones;
- 5) High Conservation Value Forests (see Criterion 9.4).

See also 8.2.a.

C

1) RTE data and monitoring is accomplished through the ID team process and an established relationship with the MD Natural Heritage Program as confirmed through interviews with Natural Heritage Program staff.

office. MD DNR maintains records of harvested timber on

GIS and a timber sale contract database (area, acres, volumes, income tracking). These records are used to

compare projected harvest to actual harvest.

- 2) Common and rare plant communities and habitats are monitored through the use of SILVAH OAK inventory system. In addition, the Wildlife and Heritage Service, and Fresh Water Fisheries gather information on plant and animal populations.
- 3) The recently developed Early Detection and Rapid Response Plan, associated monitoring protocol and 2 associated recent research projects are led by DNR's Heritage program to monitor invasive species. SILVAH OAK inventory system also includes documentation of the presence of invasive plants. In addition, it is clear from site observations and staff interviews that the DNR staff is well-trained and knowledgeable about this issue.
- 4) Zones including protected HCVF, buffer zones, Wildlands, RSAs and Old Growth are monitored through stand level inventory (SILVAH OAK protocol).

Chesapeake Forest / Pocomoke State Forest | RTE species surveys have been conducted in ESAs with management being implemented. Management includes cutting of loblolly pine or Rx Fire for habitat improvement. Additional to RTE species surveys having been done by the Regional Ecologist. The Invertebrate Ecologist and State Zoologist have conducted surveys for various listed Invertebrate

		Species. FME's Community Ecologist has also conducted
		inventory work toward a classification of Non-Riverine
		Atlantic White Cedar Forests and Pond Pine Forests.
		Green Ridge State Forest Woodcock singing ground
		survey, annual wood turtle survey and herp surveys, wild
		turkey poult production survey, ber den reproduction
		surveys, bear bait survey, shale barren plant community
		survey,.
		Potomac Garrett State Forest A) Completed 20% of the
		5Yr, forest wide forest inventory as planned.
		B) Completed NNIS assessment/inventory in High Priority
		Watersheds, per 6.9-3 above.
		Savage River State Forest DNR Wildlife & Heritage Service
		monitored for black bear and golden eagles.
8.2.d.1 Monitoring is conducted to ensure that site	С	Chesapeake Forest / Pocomoke State Forest Bi-weekly
specific plans and operations are properly		logging inspections & seedling survival/regeneration
implemented, environmental impacts of site		counts. Trail counters have been installed on recreational
disturbing operations are minimized, and that		trails.
harvest prescriptions and guidelines are effective.		
		In the eastern region, Parker Forestry completes inspection
		forms on Chesapeake Forest Project and MD DNR foresters
		also inspect tracts and fill out reports. Pocomoke State
		Forest inspections are completed solely by DNR forestry
		staff. In the western region, MD DNR field foresters conduct
		post-harvest monitoring and complete Timber Sale
		Inspection Reports that were presented and reviewed for
		each of the sites visited during this audit program. This FME
		also instituted an internal silvicultural audit system to
		examine the environmental and management impacts of
		silvicultural activities. This monitoring system was recently
		been expanded to include a post-harvest review by the ID
		team.
		Logging contractors reported that MD DNR staff conduct
		site visits at least once per week during active harvests.
		Timber Sale Inspection forms are maintained for these
		visits. This form is used for the final inspections.
8.2.d.2 A monitoring program is in place to assess	С	A Forest Roads Management For Forest Operations on
the condition and environmental impacts of the		Maryland State Forests has been implemented. This policy
forest-road system.		creates a systematic inventory of the State Forest roads
	1	including ORV trails. This plan documents each road

		segment and drainage feature in a GIS-based identification
		system and allows the development of a priority plan for
		road maintenance and feature replacement that is
		incorporated into annual work plans for each state forest.
		A bill was introduced in the current session of the Maryland
		Legislature that annually adds funds into State Forest roads
		maintenance projects. The road inventory portion of this
		process has been completed as confirmed through
		interviews and review of the prioritization list of road
		inventory improvement projects. MD DNR also instituted an
		internal monitoring system to examine the environmental
		and management impacts of silvicultural activities. This
		monitoring system was recently been expanded to include
		a post-harvest review by the ID team as described
		elsewhere in this report.
8.2.d.3 The landowner or manager monitors	С	Potomac Garrett State Forest Visitor use / car counts
relevant socio-economic issues (see Indicator		conducted monthly to monitor trends in general visitor use
4.4.a), including the social impacts of harvesting,		over time.
participation in local economic opportunities (see		Savage River State Forest In conjunction with Garrett
Indicator 4.1.g), the creation and/or maintenance		Trails that the FME examined the impact of bike trails on
of quality job opportunities (see Indicator 4.1.b),		the forest.
and local purchasing opportunities (see Indicator		
4.1.e).		See response to Minor CAR 2014.13.
8.2.d.4 Stakeholder responses to management	С	MD DNR maintains a complaint log in field offices. Records
activities are monitored and recorded as necessary.		were examined for the Eastern shore state forests.
		Each forest manager responds to inquiries and complaints
		with direct communications. When these cannot be
		resolved locally the issue is occasionally referred to the
		Annapolis office. The main mechanism for soliciting
		comments is response to each posted State Forest
		Management Plans and Annual Work Plan that details the
		proposed activities for the upcoming year.
8.2.d.5 Where sites of cultural significance exist,	С	There are no such sites on FME lands. However, FME
the opportunity to jointly monitor sites of cultural		offered this opportunity to Tribes participating in the CAC.
significance is offered to tribal representatives (see		
Principle 3).		In addition, FME is cooperating with the MD Commission of
8.2.e The forest owner or manager monitors the	С	In addition, FME is cooperating with the MD Commission of
	С	In addition, FME is cooperating with the MD Commission of Indian Affairs.

		productivity per site. Quarterly reports are also provided to the Forest Manager, which include volume and income. Savage River State Forest As a result of a study of its harvesting levels, FME has implemented an accelerated harvest plan for approved harvests. Also, it has been part of a planned reorganization that the administration of both Savage River Potomac Garrett State Forests would be combined for agency efficiencies. As a result of retirement announcements, the Savage River State Forest silvicultural management has been combined with that of Potomac Garrett State Forest, both in Garrett County.
		Cost and revenue is monitored as part of the Annual Work Plan process. The current Annual Work Plan contains a summary of cost and revenue information. Each SF has its own operational budget. Each SF maintains a spreadsheet and reports these to state offices in Annapolis. Accounting reviews all expenditures.
8.3 Documentation shall be provided by the	С	·
forest manager to enable monitoring and		
certifying organizations to trace each forest		
product from its origin, a process known as the		
"chain of custody."		
8.3.a When forest products are being sold as FSC-	С	See COC indicators for FMEs.
certified, the forest owner or manager has a system		
that prevents mixing of FSC-certified and non-		
certified forest products prior to the point of sale,		
with accompanying documentation to enable the		
tracing of the harvested material from each		
harvested product from its origin to the point of		
sale.		
8.3.b The forest owner or manager maintains	С	See COC indicators for FMEs.
documentation to enable the tracing of the		
harvested material from each harvested product		
from its origin to the point of sale.		
8.4 The results of monitoring shall be incorporated	NE	
into the implementation and revision of the		
management plan.		
8.5 While respecting the confidentiality of	NE	
information, forest managers shall make publicly		
available a summary of the results of monitoring		
,	<u> </u>	

indicators, including those listed in Criterion 8.2.

Principle #9: Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

High Conservation Value Forests are those that possess one or more of the following attributes:

- a) Forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g., endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
- b) Forest areas that are in or contain rare, threatened or endangered ecosystems
- c) Forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control)
- d) Forest areas fundamental to meeting basic needs of local communities (e.g., subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

identified in cooperation with such local co	mmuniti	es).
9.1 Assessment to determine the presence of the	NE	
attributes consistent with High Conservation		
Value Forests will be completed, appropriate to		
scale and intensity of forest management.		
9.2 The consultative portion of the certification	NE	
process must place emphasis on the identified		
conservation attributes, and options for the		
maintenance thereof.		
9.3 The management plan shall include and	NE	
implement specific measures that ensure the		
maintenance and/or enhancement of the		
applicable conservation attributes consistent with the precautionary approach. These measures shall		
be specifically included in the publicly available		
management plan summary.		
9.4 Annual monitoring shall be conducted to	С	
assess the effectiveness of the measures		
employed to maintain or enhance the applicable		
conservation attributes.		
9.4.a The forest owner or manager monitors, or	С	Chesapeake Forest / Pocomoke State Forest Monitoring
participates in a program to annually monitor, the		of ESA restoration projects by Heritage.
status of the specific HCV attributes, including the		Cooperation with the USFWS on the delisting of the
effectiveness of the measures employed for their		Delmarva Fox squirrel based on current habitat conditions
maintenance or enhancement. The monitoring		from management activities. A summary table of annual
program is designed and implemented consistent		HCVF activities.
with the requirements of Principle 8.		Potomac Garrett State Forest NNIS inventory in the HCVF
		/ High Priority Watershed per 6.9-3 above. Data to be
		analyzed.
9.4.b When monitoring results indicate increasing	С	Monitoring activities have not indicated any increasing risks

risk to a specific HCV attribute, the forest owner/manager re-evaluates the measures taken to maintain or enhance that attribute, and adjusts the management measures in an effort to reverse the trend.

to specific HCV attributes, per interviews with staff. However, it is know that if certain activities are not implemented that HCVs may be temporarily lost in Delmarva Bays (see OBS 2015.2).

APPENDICES

APPENDIX C: REGIONAL LIMITS AND OTHER GUIDELINES ON OPENING SIZES Indicator 6.3.g.1

This Appendix contains regional Indicators and guidance pertinent to maximum opening sizes and other guidelines for determining size openings and retention. These Indicators are requirements based on FSC-US regional delineations

C

APPALACHIA REGION

6.3.g.1.a When even-aged silviculture (e.g., seed tree, regular or irregular shelterwood), or deferment cutting is employed, live trees and native vegetation are retained and opening sizes are created within the harvest unit in a proportion and configuration that is consistent with the characteristic natural disturbance regime in each community type, unless retention at a lower level is necessary for restoration or rehabilitation purposes. Harvest openings with no retention are limited to 10 acres.

Guidance: Even-age silviculture is used only where naturally occurring species are maintained or enhanced. Retention within harvest units can include riparian and streamside buffers and other special zones. In addition, desirable overstory and understory species may be retained outside of buffers or special zones while allowing for regeneration of shade-intolerant and intermediate species consistent with overall management principals. Where stands have been degraded, less retention can be used to improve both merchantable and non-merchantable attributes.

6.3.g.1.b When uneven age silvicultural techniques are used (e.g., individual tree selection or group selection), canopy openings are less than 2.5 acres. **Applicability note:** Uneven age silvicultural techniques are used when they maintain or enhance the overall species richness and biologic diversity, regenerate-shade tolerant or

See response to Minor CAR 2014.7.

Where uneven-aged management is in use, canopy openings are less than 2.5 acres in size. A very small amount of the Western Region is under this type of management.

С

intermediate-tolerant species, and/or provide small canopy openings to regenerate shade-intolerant and intermediate species. Uneven-age techniques are generally used to develop forests with at least three age classes. Uneven age silviculture is employed to prevent high-grading and/or diameter limit cutting.

SOUTHEAST REGION

6.3.g.1.a Primary and natural forests: clear-cutting is not allowed. Harvesting is not allowed at all in *primary forests*.

Semi-natural forests: stands with trees greater than 100 years old: clear-cutting is not allowed; evenaged stands of hardwood and cypress: clear-cutting is allowed; the size of openings should be conservative.

Even-aged stands of pine and pine/hardwood: clear-cutting is allowed; the size of openings should not be higher than the limit for plantations and should be justified by natural regeneration requirements.

Clear-cuts up to 80 acres are allowed in cases where a 40-acre stand would not provide enough timber volume to secure an economically operable timber sale, meaning that the sale would not attract a buyer and/or the landowner would not make a profit from the sale. Examples of such cases include stands that have been high graded and the most valuable species of trees have already been removed, or where a site has been planted with inappropriate, poorly growing species and the landowner/manager wants to clear and restore the site. This exception cannot be used when a 40-acre clearcut would be economically operable and a landowner wants to cut 80 acres simply to make a greater profit.

Clearcuts up to 80 acres are allowed in cases where

Within the eastern shore State Forests (Southeast Region) even-aged silviculture including final stage of shelterwood (overstory removal) are restricted to previously established pine plantations that are being managed as natural stands and openings that are less than 40 acres in size (except in the case of restoration plans developed by in cooperation with the MD DNR Natural Heritage and which is based on best available science).

See also audit itinerary.

There are no limitations on opening size limits in the Southeastern regional indicators; however, there are suggested opening size limits (80 acres). The average clearcut size is 40 acres, but MD DNR has had openings that of 120-160 acres in the case of restoration of wetland ecosystems where pine was planted or invaded after disturbance (e.g., Indian Town Delmarva Bay Restoration Project). In these cases, wetland hydrology is often restored and pines are removed with the intent of restoring natural plant communities.

As confirmed through interviews with biologists, MD DNR Heritage staff and plan review the completed Indian Town Delmarva Bay Restoration Project that has involved several smaller clearcuts (~30-40 acres) that effectively become a single large opening over what was once a Delmarva Bay Ecosystem.

harvesting a stand in 40 acre blocks would cause						
unnecessary environmental disturbance to the area						
surrounding the stand.						
An exception to all of the limits on the use and size						
of clearcuts can be made in cases of ecologic						
necessity. Clearcutting may be used in natural						
forest standswhere appropriate and necessaryas						
a tool for maintaining ecosystems that are						
dependent on large, contiguous openings. An						
example is the sand pine scrub ecosystem, which						
supports the ecologically significant Florida scrub						
jay and is currently being managed with large,						
contiguous clear-cuts. Ecologists urge the use of						
large clearcuts in the sand pine scrub ecosystem to						
mimic the stand-replacing, catastrophic fires that						
historically maintained the ecosystem. This						
exception may only be used when supported by						
scientific literature.						
APPENDIX E: STREAMSIDE MANAGEMENT ZONE (SM	Z) REGIC	NAL RE	QUIREM	ENTS		
Indicator 6.5.e						
This Appendix addresses regionally explicit requireme	nts for Ir	ndicator	6.5.e and	d includes SN	MZ widths and activity li	mits
within those SMZs for the Appalachia, Ozark-Ouachita	, Southe	ast, Mis	sissippi A	lluvial Valle	y, Southwest, Rocky Mo	untain,
and Pacific Coast regions. The forest owner or manage	er will be	evaluat	ted based	d on the sub-	indicators within their s	specific
region, below.						
APPALACHIA REGION						
The SMZ is designed to allow harvesting and provide for	lexibility	for silvi	cultural n	nanagement		
6.5.e.1.a All <i>perennial streams</i> have buffers	С	See re	sponse to	Minor CAR	2014.8.	
(streamside management zones, SMZs) that include						
an inner SMZ and an outer SMZ. SMZ sizes are						
minimum widths that are likely to provide						
adequate riparian habitat and prevent siltation. If						
functional riparian habitat and minimal siltation are						
not achieved by SMZs of these dimensions, wider						
SMZs are needed.						
Table 6.5.f (APP only) Widths of inner and outer Stre	amside I	Vlanage	ment Zoi	nes. Widths	of outer SMZs are appl	icable
where data do not support narrower widths*						
Stream Zone Type				SLOPE CA	TAGORY	
	1-10%	6	11-	21-30%	31-40%	41%+
			20%			
Inner Zone (Perennial)	25'		25'	25'	25'	25'

Outer Zone	55'		75′	105′	110′	140′	
(Perennial)							
Total For Perennial	80'		100′	130'	135'	165′	
Zone For Intermittent	40'		50'	60'	70'	80'	
*All distances are in feet -slope distance and are mea	sured fro	om the hi	gh wate	r mark.	1	•	
6.5.e.1.b (APP only) The inner SMZ for <i>non-high-</i>	С	See res	ponse to	o Minor CA	R 2014.8.		
quality waters (see state or local listings describing							
the highest quality waters in the state or region)							
extends 25 feet from the high water mark. Single-							
tree selection or small group selection (2-5 trees) is							
allowed in the inner SMZ, provided that the							
integrity of the stream bank is maintained and							
canopy reduction does not exceed 10 percent (90							
percent canopy maintenance). Trees are							
directionally felled away from streams. Note: The							
inner SMZ is designed as a virtual no-harvest zone,							
while allowing the removal of selected high-value							
trees.							
6.5.e.1.c (APP only) Along perennial streams that	С	See res	ponse to	o Minor CA	R 2014.8.		
are designated as high-quality waters (see state or							
local listings describing the highest quality waters in							
the state or region), no harvesting is allowed in the							
inner SMZ (25 feet from the high water mark),							
except for the removal of wind-thrown trees.							
Stream restoration is allowed if a written							
restoration plan provides a rational justification and							
if the plan follows local and regional restoration							
plans.							
6.5.e.1.d (APP only) Outer SMZs, outside and in	С	See res	ponse to	o Minor CA	R 2014.8.		
addition to inner SMZs, are established for all							
intermittent, and perennial streams, as well as							
other waters. When the necessary information is							
available, the width of a stream management zone							
is based on the landform, erodibility of the soil,							
stability of the slope, and stability of the stream							
channel as necessary to protect water quality and							
repair habitat. When such specific information is							
not available, the width of streamside management							
zone is calculated according to Table 6.5.f							
6.5.e.1.e (APP only) Harvesting in outer SMZs is	С	See res	ponse to	o Minor CA	AR 2014.8.		
limited to single-tree and group selection, while							

maintaining at least 50 percent of the overstory.		
Roads, skid trails, landings, and other similar		
silviculturally disturbed areas are constructed		
outside of the outer SMZ, except for designated		
stream crossings or when placement of		
disturbance-prone activities outside of the SMZ		
would result in more environmental disturbance		
than placing such activities within the SMZ.		
Exceptions may be made for stream restoration.		
6.5.e.1.f (APP only) The entire SMZ of intermittent	С	See response to Minor CAR 2014.8.
streams is managed as an outer buffer zone.		
6.5.e.1.g (APP only) The activities of forest	С	See response to Minor CAR 2014.8.
management do not result in observable siltation of		
intermittent streams. The activities of forest		
management do not result in observable siltation of		
intermittent streams.		
SOUTHEAST REGION	·	
6.5.e.1 (SE only) Streamside or special management	С	FME follows its BMP guidelines for water courses in the
zones (SMZs) are specifically described and/or		Eastern Region. Buffer widths and management practices
referenced in the management plan, included in a		are the same as for the Western Region, so retention is
map of the forest management area, and designed		typically at a level that meets or exceeds the suggestions of this indicator. See
to protect and/or restore water quality and aquatic		http://www.dnr.state.md.us/forests/landplanning/bmp.ht
and riparian populations and their habitats		ml for further details.
(including		
river and stream corridors, steep slopes, fragile		
soils, wetlands, vernal pools, seeps and springs,		
lake and pond shorelines, and other hydrologically		
sensitive areas).		
At a minimum, management of SMZs has the		
following characteristics:		
Management meets or exceeds state BMPs.		
SMZ width reflects changes in forest condition,		
stream width, slope, erodibility of soil, and		
potential hazard from windthrow along the length		
of the watercourse.		
SMZs provide sufficient vegetation and canopy		
cover to filter sediment, limit nutrient inputs and		
chemical pollution, moderate fluctuations in water		
temperature, stabilize stream banks, and provide		

habitat for riparian and aquatic flora and fauna.							
Characteristic diameter-class distributions, species							
composition, and structures are adequately							
maintained within the SMZs.							

Appendix 6 – Chain of Custody Indicators for FMEs

REQUIREMENT	C/NC	COMMENT/CAR			
1. Quality Management					
1.1 The organization shall appoint a management representative as having overall responsibility and authority for the organization's compliance with all applicable requirements of this standard.	С	As confirmed through review of COC procedures, interviews with Jack Perdue and field staff, Jack Perdue has been appointed as the Chain of Custody Administrator with responsibility and authority for this FME's conformance with the requirements of this standard.			
1.2 The FME shall maintain complete records of all FSC-related COC activities, including sales and training, for at least 5 years.	С	FME's sale records were presented and reviewed and are complete for at least the past 5 years. Special attention was given to 2014-15 sales, which are tracked using spreadsheets. COC procedures and training records have been created, maintained and presented.			

1.3 The FME shall define its forest gate(s) (check all that apply): The forest gate is defined as the point where the change in ownership of the certified-forest product occurs.	С	Stump X Stumpage sale or sales of standing timber; transfer of ownership of certified-forest product occurs upon harvest. On-site concentration yard Transfer of ownership of certified-product occurs at concentration yard under control of FME. Off-site Mill/Log Yard Transfer of ownership occurs when certified-product is unloaded at purchaser's facility. Auction house/ Brokerage Transfer of ownership occurs at a government-run or private auction house/ brokerage. Lump-sum sale/ Per Unit/ Pre-Paid Agreement X A timber sale in which the buyer and seller agree on a total price for marked standing trees or for trees within a defined area before the wood is removed — the timber is usually paid for before harvesting begins. Similar to a per-unit sale. Log landing Transfer of ownership of certified-product occurs at landing/yarding areas. Other (Please describe):
1.4 The FME shall have sufficient control over its forest gate(s) to ensure that there is no risk of mixing of FSC-certified forest products covered by the scope of the FM/COC certificate with forest products from outside of the scope prior to the transfer of ownership.	С	FME sells certified materials as stumpage and lump sum, pre-paid agreements from western MD State Forests In western MD volume is paid for before the trees are harvested with no risk of mixing certified products with non-certified products. FME sells certified materials as gate-wood (in essence stumpage sales; the contract for gate-wood specifies that the sale is at the stump) and stumpage and lump sum, prepaid agreements from eastern shore State Forests. There is no risk of mixing of FSC-certified forest products with noncertified forest products (gate-wood sales) because deliveries include specific trip ticket delivery documents that are associated with each product sale area. Other lands owned and managed by this FME are not certified; however, those lands are geographically distinct from certified land as confirmed through interviews and review of the maps of the other properties and rarely include timber harvest activities.

1.5 The FME and its contractors shall not process FSC-certified material prior to transfer of ownership at the forest gate without conforming to applicable chain of custody requirements. NOTE: This does not apply to log cutting or de-barking units, small portable sawmills or on-site processing of chips/biomass originating from the FMU under evaluation.	С	No processing occurs prior to transfer of ownership. FME sells certified materials as stumpage and lump sum, prepaid agreements and gate-wood. The gate-wood sales include tree cutting and log hauling and are in conformance to the COC requirements.
2. Product Control, Sales and Delivery		
2.1. Products from the certified forest area shall be identifiable as certified at the forest gate(s).	С	A variety of contracts were presented and reviewed. These documents include the identification of these products as certified (FSC 100%).
2.2 The FME shall maintain records of quantities/volumes of FSC-certified product(s).	С	A variety of timber sale contracts, trip tickets, wood settlement sheets and a timber harvest summary spreadsheet (2004 to 2014) were presented and reviewed and include the volume of products sold. Records are maintained by the FME and by Parker Forestry on the Maryland shore state forests. Records were demonstrated at Parker Forestry.

C

С

2.3. The FME shall ensure that all sales documents issued for outputs sold with FSC claims include the following information:

- a) name and contact details of the organization;
- b) name and address of the customer;
- c) date when the document was issued;
- d) description of the product;
- e) quantity of the products sold;
- f) the organization's FSC Forest Management (FM/COC) or FSC Controlled Wood (CW/FM) code;
- g) clear indication of the FSC claim for each product item or the total products as follows:
 - i. the claim "FSC 100%" for products from FSC 100% product groups;
 - ii. the claim "FSC Controlled Wood" for products from FSC Controlled Wood product groups.
- h) If separate transport documents are issued, information sufficient to link the sales document and related transport documentation to each other.

Contracts were checked for all timber harvest sites visited, and include all information of this indicator (see Audit Itinerary) even when the purchaser does not maintain COC. Since most sales are lump-sum (i.e., ownership transferred before harvest), no load tickets would be issued with the FME's information for those types of sales. Contracts contain COC information in item 22.

Contracts are created on the basis of an existing template that includes each of the required items a-g. Specifically, this FME's FSC Forest Management (FM/COC) code and a clear indication of the FSC claim (FSC 100%) are included in this template and recent contracts.

Separate transport documents (item h) are used in Eastern shore State Forest contracts for gate-wood only and include sale name to link the trip ticket to the sale document (timber sale contract). Parker Forestry maintains a spreadsheet of all timber sales, including contract numbers. Trip ticket books are assigned to specific contractors and may be used on multiple tracts. Harvest contractors report used tickets to Parker Forestry, the numbers of which are entered into the spreadsheet and tied to each timber sale. Trip tickets contain reference to the specific sale contract and the information a)-d), f) and g). Quantity is obtained at the scale (e), which is then printed off and provided to FME by purchaser. This print off is traceable to the load ticket via the ticket's number. Harvest contractors also provide a weekly report of loads delivered by load ticket, which is then compared to the spreadsheet.

Gate-wood load tickets and wood settlement sheets associated with contracts were checked for:

- P01 Sturges Tract 1, Stand 15 (Contract P-23-13):
 0309001, 0309201, and 03093-01.
- P04 Dividing Greek, Tract 13, Stand 3 (Contract P-2-15): 03556-01, 03564-1, and 03571-01.

When FME sells certified materials as stumpage and lump sum, pre-paid agreements, the trees are paid for before the trees are harvested and the purchaser is responsible for shipping documents.

When FME sells certified materials as gate-wood, the sales document (contract) is not included with the shipment of this product (eastern shore State Forest contracts only). In these cases, the shipping documents include each of the requirements (a-h) of section 2.3 and FSC-STD-40-004 V2-1 Clause 6.1.1. See 2.3 for more information.

2.4 The FME shall include the same information as required in 2.3 in the related delivery documentation, if the sales document (or copy of it) is not included with the shipment of the product.

Note: 2.3 and 2.4 above are based on FSC-STD-40-004 V2-1 Clause 6.1.1 and 6.1.2

 2.5 When the FME has demonstrated it is not able to include the required FSC claim as specified above in 6.1.1 and 6.1.2 in sales and delivery documents due to space constraints, through an exception, SCS can approve the required information to be provided through supplementary evidence (e.g. supplementary letters, a link to the own company's webpage with verifiable product information). This practice is only acceptable when SCS is satisfied that the supplementary method proposed by the FME complies with the following criteria: a) There is no risk that the customer will misinterpret which products are or are not FSC certified in the document; b) The sales and delivery documents contain visible and understandable information so that the customer is aware that the full FSC claim is provided through supplementary evidence; c) In cases where the sales and delivery documents contain multiple products with different FSC Claims, a clear identification for each product shall be included to cross-reference it with the associated FSC claim provided in the supplementary evidence. FSC-ADVICE-40-004-05 	NA	No space constraints
3. Labeling and Promotion		n/a
3.1 Describe where/how the organization uses the SCS and FSC trademarks for promotion.	С	FME uses trademarks on its webpage within management plans for the Eastern Shore. See response to Minor CAR 2014.15.
3.2 The FME shall request authorization from SCS to use the FSC on-product labels and/or FSC trademarks for promotional use.	С	See response to Minor CAR 2014.15.
3.3 Records of SCS and/or FSC trademark use authorizations shall be made available upon request.	С	Email correspondence from 2009 and 2011 between MD DNR and SCS were presented and reviewed.
4. Outsourcing		x n/a
4.1 The FME shall provide the names and contact details of all outsourced service providers.		Logging and transportation of forest products are considered low risk and therefore these indicators are NA.

4.2 The FME shall have a control system for the		
outsourced process which ensures that:		
a) The material used for the production of FSC-		
certified material is traceable and not mixed with		
any other material prior to the point of transfer		
of legal ownership;		
b) The outsourcer keeps records of FSC-certified		
material covered under the outsourcing		
agreement;		
c) The FME issues the final invoice for the processed		
or produced FSC-certified material following		
outsourcing;		
d) The outsourcer only uses FSC trademarks on		
products covered by the scope of the outsourcing		
agreement and not for promotional use.		
5. Training and/or Communication Strategies		
	1	
5.1 All relevant FME staff and outsourcers shall be trained		FME staff members are knowledgeable of the COC control
in the FME's COC control system commensurate with the		system and standard. A COC plan has been established,
scale and intensity of operations and shall demonstrate	С	implemented, presented and reviewed.
competence in implementing the FME's COC control		implemented, presented and reviewed.
system.		
5.2 The FME shall maintain up-to-date records of its COC		
training and/or communications program, such as a list of		
trained employees, completed COC trainings, the	С	A COC communications program and records of training
intended frequency of COC training (i.e. training plan),		were presented and reviewed.
and related program materials (e.g., presentations,		

memos, contracts, employee handbooks, etc).