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
24-27/April/2017
DATE OF LAST UPDATE

10 June 2017

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Foreword

Cycle in annual surveillance audits					
1 st annual audit	2 nd annual audit	X 3 rd annual audit	4 th annual audit	Other (expansion of scope, Major CAR audit, special audit, etc.):	
Name of Forest Management Enterprise (FME) and abbreviation used in this report:					
State of Maryland DNR – Forest Service (MD DNR, DNR or FME)					

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 Senior Certification Forester with SCS Global Services. He has been							
	with SCS since 2008 and has conducted FSC FM pre-assessments, evaluations, and							
	surveillance audits in Brazil, Panama, Mexico, Cost	a Rica, Bolivia, I	Indonesia, India,					
	Japan, New Zealand, Spain, and all major forest pr							
	States. He has conducted COC assessments in Or	-						
	South Carolina, West Virginia, Georgia, and Califor		•					
	completed CAR Lead Verifier, ISO 9001:2008 Lead							
	Systems Introduction and Basic Auditor Training C							
	Resource Ecology and Management and a B.A. in S	•	•					
	Michigan; and a Master of Forestry from the Yale	School of Forest	ry and					
	Environmental Studies.		T					
Auditor Name:	Tucker Watts Auditor role: SFI Lead Auditor							
Qualifications:	Tucker Watts has over 30 years' experience in forest management, primarily in the							
	southern U.S. He worked for many years for Inter	•	• •					
	land management and procurement forester, then as an analyst, and finally as an							
	environmental manager with considerable involvement in forest certification.							
	Tucker has a BS in Forestry from Louisiana Tech, and MS in Forestry from Mississippi							
	State University, and an MBA from Centenary College. He has participated in many							
	forestry organizations, notably as a Trainer in the Louisiana Master Logger Program,							
	as a team member for "Recommended Forestry Best Management Practices for							
	Louisiana" and on various SFI State Implementation Committees. Tucker is trained							
	as a Tree Farm Group Certification Auditor and ha							
	auditing from both sides, as an auditor and as the organization being audited. Audit experience includes	_						
	mills, container and box companies, printers, distr	•						
	fiber and recycled content.	ibuters, and aut	aits of recovered					
	inser and recycled content.							

1.2 Total Time Spent on Evaluation

D.	Total number of person days used in evaluation:	7
C.	Additional days spent on preparation, stakeholder consultation, and post-site follow-up:	0
В.	Number of auditors participating in on-site evaluation:	2
A.	Number of days spent on-site assessing the applicant:	3.5

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 FSC International (w	ww.fsc.org)	, the FSC-US

(www.fscus.org) or the SCS Standards page (www.scsglobalservices.com/certification-standards-and-program-documents). Standards are also available, upon request, from SCS Global Services (www.SCSglobalServices.com).

1.3.2. SCS Interim FSC Standards

Title	Version	Date of Finalization
SCS FSC Chain of Custody Indicators for Forest Management	V6-0	December 2016
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

Complex	Location	Acres	Activity	Note	Audit team notes			
	Monday April 24 - Afternoon Sites							
NA	FME offices	NA	Opening meeting	Introductions, FME update, review audit scope, audit plan, intro/update to FSC and SCS standards and protocols, review of open CARs/OBS, final site selection	Significant progress in updating the forest inventory and modeling was recently completed in the Eastern Region.			
WR25	Tankard	29.0	Reforestation	complete	Natural regeneration of loblolly pine attempted, but did not meet stocking requirements of 300 trees per acre in all areas of the stand. So replanting was conducted on 7 X 10 spacing followed by a herbicide application to release pines. Individual retained legacy hardwood and pines were GPS'd and provided to herbicide applicator. Very little damage			
WR25	Tankard Tract, Stand 11	26.8	Herbicide Application	8oz Arsenal+2.5 oz Herbimax	to non-target species, as confirmed in application flight lines and application records. Property boundaries on four sides of the timber sale left with a buffer of screen trees that function as legacy trees. Green-up witness in adjacent stands. Applicators license for Glenn Martin witnessed. Contacts contain required elements.			

WR25	WR25 Tankard, S11	33.5	Final Harvest	99% complete	Legacy and seed trees consisting of pond pine and oak GPS'd and marked with blue paint. Roads matted to protect access. Ditches are clean and stream is free flowing. Stand will be left to regenerate and no seed trees are to be removed. No-harvest areas mapped and equipment limited to skid trails. Buffer left along road for aesthetic management. Green-up requirements met by adjacent stands. Future habitat for Delmarva Fox Squirrel (DFS) and Forest Interior Dwelling Species. Lower elevation site, so operations required dryer conditions. Contacts contain required elements.
P02	Furnace	447.0	Rx Burn	60% complete	Complex of beach dunes with habitat and potential habitat for RTE plants and insects. Observation of habitat management, including deer-exclusion devices. Discussion of habitat and population monitoring and prescribed fire rotation to manage for a mosaic of habitat over time and space. Review of burn plan, prescribed fire safety, training & qualifications. Discussion on collaboration with other government agencies and TNC on prescribed fire.
P02	Nazareth Church T8, s10&14	14.4	Final Harvest	50% complete	Retention of pond pine and short-leaf pine, all GPS'd. 90 year-old regenerated after agricultural abandonment. Observation of SMZ with harvest exclusion and equipment exclusion buffers. Good distribution and use of slash to cover skid trails. Observation of historic cultural site and protection measures. Temporary bridge will be used to cross creek.

P02	Nazareth Church T4 S1,4,8&10- Honeywell	118.0	1st Thinning	20% complete	Sales from four fiscal years lumped into one to enhance bidding process. Boundaries marked with yellow pain and placards. Observation of SMZ, which was allowed to be thinned to 70 BA (60 BA is allowed). Intended to be future DFS core area. Discussion on use of monitoring results to update management strategy and plans. Man-made ditch buffered. Discussed buffering requirements for man-made ditches. Minor skinning of residual trees. Debris used to stabilize skid trails.
			Т	uesday April 25 - Group 1 Sites	
	FME Offices			Document and record review, and employee interviews	Review of training, complaints, stakeholder communications, ownership, and lease records.
	Parker Forestry			Document and record review, and employee interviews	Review of contracts, harvest records (including COC for stumpage, lump-sum, and gatewood), post-harvest monitoring, chemical use
W17	R F Richardson, Stand 1	35.8	Natural Regeneration	complete	2015 regeneration survey following clearcut and to check survival of overstory retention (oak and pine); 2,000 trees per acre, but some patchiness to regeneration so site was treated with an aerial spray to reduce broadleaf and herbaceous competition; post-spray regeneration of loblolly was 2,500-3,000 trees per acre, which likely will require a pre-commercial thinning, but no supplemental planting. Discussion on repairing ruts and site preparation options.

W21	Louis Horner Tract Stands 6,11 & 16	62.3	1st Thinning	complete	Objective to enhance FIDS habitat and protect natural temporal stream connected to perennial tidal stream within coastal protection zone. Observation of hardwood riparian forest (protected area) and stream crossing with 16" culvert, currently covered with leaves, but water is still flowing freely. Discussion on culvert sizing, invasive species control and prevention. Observation of historic site, skid trails, property boundaries, and residual stand, all of which are in good condition. Thinned to 90 BA.
W23	Greenhill Complex, Stands 17, 20,23 & 28	205.0	1st Thinning	45% complete	Future DFS core area, no other special features. Thinned to 90 BA. Skid trails covered with slash and evidence that mats were used in sensitive sections of trails. Little to no residual stand damage. Gatewood sale.
	Warrington Tract		1st Thinning	15% complete	Stumpage sale in which operations were stopped by logging crew due to wet conditions. Observation of hardwood swamp, which was not entered or harvested. Use of slash on skid trails. Some slash has been piled, but likely will be distributed over the site when operations resume. Discussion on the effects of age classes and timber quality on potential timber markets.
			Т		

WR10	Corddry Tract, Stand 12	92.4	1st Thinning	60% complete	Erosion and Sedimentation Plan discussed. No entrance into area. Bridge used for crossing. Bridge has been removed and area stabilized. Density reduced to 70 BA. Tree selection for thinning well done.			
WR09	Perkins Tract, Stand 3	36.7	Herbicide Application	16oz Arsenal+2oz Escort+2.5oz Herbimax	Shelterwood cut in 2011. Low seed fall and understocked regeneration. Chemical site preparation 8/16. Witnessed and discussed Spill Management and Application Plan. Ditches buffered during spray. Over-spray on adjacent neighbor. Claim discussed and settled with landowner. Seed trees will be removed, soil scarified and planted.			
WR11	Shockley	24.7	Afforestation	complete	Afforestation of agriculture field. Witnessed Reforestation Plan. Powerline buffered for trees. Hand planting at 7 X 10 spacing. Survival of 485 trees per acre. Boundary lines are clearly visible.			
WR01	Timmons- Donaway Tract, Stands 3&7	54.6	1st Thinning	complete	Erosion and Sedimentation Plan reviewed and discussed. Tract check for endangered species. Thinning to 70-0 basal area goal. No cut buffer for SMZ. Man-made ditches have been buffered with no entry. Timbers used to cross ditch. Banks are clean and stabilized. Minor skinning of residual stand. Tree selection during thinning improves stand health. No rutting.			
	Wednesday April 26 - Group 1 Sites							

D21	Bell Tract, Stand 2	16.4	1st Thinning	complete	Discussed Erosion and Sedimentation Plan. Residual BA is 67. Some rutting in main skid trail noted in monitoring. Witnessed rutting and discussed rutting policy and handling of issue. Good tree selection.
D10	Huhne Tract Stand 1	79.9	1st Thinning	10% complete	Vernal pools protected with 50' no cut riparian area. Thinning stand to 60 BA. Erosion and Sedimentation Plan developed. Minor rutting. No damage to soil or water. Boundary well defined. SMZ flagged. Good tree selection. Debris used to stabilize skid trails.
D12	Marshyhope Complex Stands 1,2,8,13&15	138.0	1st Thinning	75% complete	High Conservation Area. Critical Area Plan discussed. Erosion and Sedimentation Plan was developed. Access controlled by gate. Debris used for stabilization of skid trails. Good utilization. No rutting observed. Sale area identified with flagging.
D12	Marshyhope Tract Stands 1 & 49	70.2	1st Thinning	complete	Critical Area Plan discussed. Streams buffered. Erosion and Sedimentation Plan completed. Thinning to 61 BA. Virginia Pine corridors remain to protect residuals and provide wildlife habitat. Debris used to stabilize skid trails. Steam buffer identified with flagging. No entrance in buffer. Buffer has been expanded to compensate for sloping toward stream. Interviewed logger on training, safety meetings and PPE.

D12	Marshyhope Messenger Tract Stand 4	129.0	Rx Burn 1st Thinning	complete	Prescribed burn conducted for Natural Heritage Commission. Discussed and witnessed Burn Plan. Benefits include wildlife (Turkeys witnessed on site) and fuel reduction. Interaction with private landowners and citizens discussed. Signs placed on road during burn. Sign with contact information remains after burn (Witnessed on site.) Thinning basal area 67. Debris used to stabilize skid trails. Tree selection improves residual stand.
C03	Messenger Branch	67.0	Rx Burn	complete	Prescribed burn conducted for quail at Idyle Wild Management Area. Discussed and witnessed Burn Plan. Burn will be conducted at 2-3 year intervals. Benefits include wildlife and rare plants. (Turkeys witnessed on site) and fuel reduction. Plans are to expand burning program and develop a 15 year plan.
			We	dnesday April 26 - Group 2 Sites	
	Powell Tract		Final Harvest	planned, but not harvested	Observation of pre-harvest meeting between forestry and logging contractor. Completion of pre-harvest checklist and map review with logger, discussion of PPE and use of signage near road and trail entrances, use of mats and other BMPs near sensitive areas, location of sensitive resources, etc.

P02	Furnace T126 S3&4	34.0	1st Thinning	complete	FIDS, DFS future core and ESAs present. Observation of protections for vernal pools. Thinned to 66 BA, which just below desired BA range (70-90); however, smaller trees meant that desired trees per acre were met. Discussion of opportunities to collaborate with Natural Heritage staff.
P05	Milburn Lndg T17 S11	4.7	Final Harvest	50% complete	Observation of plantation established in the 1940s with significant hardwood component and large pines. Two ESA types, DFS Future Core, natural stream with SMZ marked with flagging, and recreational trails. Harvest was closed due to wet conditions. All sensitive features were avoided during harvest, including retention trees. Observation of property boundaries, which are noted with yellow paint and/or signage.
P05	Mohr-Milburn Landing T15 S30	35.0	1st Thinning	50% complete	FIDS, perennial stream with 125-150 ft no-cut buffer, DFS Future Core area, thinned to 86 BA, hardwood retention includes yellow poplar and oak. Discussion of stream protections and hardwood utilization, which is limited due to proximity to mills. Observation of property boundaries.

S27	Wells Tract - Stands 2,5&7	238.9	1st Thinning	complete	DFS Future Core area, and 50-ft buffer established around ditch. Thinned to 73 BA. Logger had to pull out due to wet conditions at one point; no major issues with roads and skid trails observed. Second thinnings and final harvest should have opportunities for release and retention of mast-producing species, mainly oaks. Observation of property boundaries.
S53	Handy Tract - Stands 3,6,7,15 &16	137.3	1st Thinning	60 % complete	Four age classes present, but trees are of similar sizes. Thinned to 75 BA. Observation of stand boundaries, which are marked with tape. Discussion on timber markets and the impacts on types of harvest equipment available.

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 polici Evaluation methods include document and record review, implementing sampling strategies to v 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 c 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 o assessment jointly. This involves an analysis of all relevant field observations, stakeholder comm and reviewed documents and records. Where consensus between team members cannot be ach due to lack of evidence, conflicting evidence or differences of interpretation of the standards, the is instructed to report these in the certification decision section and/or in observations.

3. Changes in Management Practices

$oxed{X}$ There were no significant changes in the management and/or harvesting methods that affect
FME's conformance to the FSC standards and policies.
Significant changes occurred since the last evaluation that may affect the FME's conformance
standards and policies (describe):

4. Results of the Evaluation

4.1 Existing Corrective Action Requests and Observations

				Finding Number:
Select one:	Major CAR	☐ Minor CAR	X Observation	
FMU CAR/OBS is:	sued to (when	more than one FMU):		
Deadline	3 mo	ondition to certification on this from Issuance of Faudit (surveillance or re deadline (specify): no	Final Report e-evaluation)	
FSC Indicator:	FSC-US. 6	.3.a.1, 6.3.d and 6.3.e		

Non-Conformity (or Background/ Justification in the case of Observations): According to the FMP interviews with FME staff, native conifer species were likely more prevalent on the landscape that are currently. FME is considering expanding the use of native and non-native conifers on certain a wildlife management component, to restore native species (both conifer and broadleaf), and put to adapt to climate change and invasive pests/ pathogens.

There was one site where native conifer restoration with white pine was written into the site plan option, but FME staff were debating on whether or not to continue with that management traject given deer browse pressure. Certain activities observed, specifically retention of hemlock, white

pitch pine and Virginia pine, within thinning and regeneration harvest units likely contribute to maintaining and/or increasing native conifer cover.

However, at the landscape level, FME has not assessed the desired future condition of the native and non-native conifer component, including selection of species that will meet social, economic, and ecological objectives depending on site conditions.

Corrective Action Request (or Observation): FME should consider conducting a landscape-level analysis of native and non-native conifer distribution and develop desired future conditions for their distribution based on variables such as wildlife, restoration, hydrology, adaptation to climate change and pests/pathogens, socioeconomic conditions, etc. Justification for any use of non-native or non-local growing stock should be justified in the analysis.

Various indicators of Criterion 6.3 may be useful in this assessment; however, of most concern are 6.3.a.1, 6.3.d and 6.3.e.

FME response (including any evidence submitted)

We have begun a conifer analysis for our Western Maryland state forests, beginning with the Green Ridge State Forest. This effort displayed the raw conifer cover at approximately 441 acres. This project has identified individual trees from six-inch resolution imagery, so even in a pure stand of pine the analysis will still show "holes" between the trees. This GIS data layer will show everything over two meters, so smaller plants such as mountain laurel will not be displayed. We will review this draft analysis before running similar tests for the Garrett county state forests.

During the past decade, nesting goshawks have been discovered in plantations of red pine. Goshawks had not been seen in Maryland for many years, so this was a pleasant surprise. These stands had been targeted for regeneration, to be replaced with native hardwoods. Since then, our state forest staff has worked with the Natural Heritage Program to identify the stands likely to be attractive to goshawks and actually plan to modify these stands using silvicultural practices to enhance the habit for goshawk. See Potomac Garrett State Forest annual work plan FY 2017, pages 114-115, and Savage River State Forest annual work plan FY 2017, page 78-79.

Conifers when present in stands proposed for management are identified and when appropriate, given preference for retention in the next stand. This can be noticed in our recent annual work plans. Review of Potomac Garrett State Forest search for "conifer" will help identify this planned work. This awareness for the need to support landscape and species diversity has been identified with such language: "Where appropriate, dominant and co-dominant trees will be removed through single tree and group selection, to release suitable white pine seedlings and saplings from competition. This will facilitate expansion of the important mixed hardwood/conifer cover type."

Red spruce was once an economically important softwood species in Garrett County but has since been harvested to the point on non-existence. Pockets of a few trees are discovered and favored in management practices. Managers have even gone to the point of digging wild seedlings and transplanting them onto the state forests.

Norway spruce has been successfully planted on Savage River State Forest some decades ago. The audit teams have visited these stands and silvicultural work during previous audits. With the success of these plantations and the difficulty of getting red spruce back into the stands, using non-native Norway spruce has been discussed. We have met with the Natural Heritage Program regarding this concept. While they stated that they would not promote planting of non-native species, they could see no reason not allow it. We assured them that any plan for using Norway spruce would not result in large plantations but small pockets. Further discussions will ensue, but the opening dialog has been promising.

SCS review

SCS verified the goshawk information included in the two AWPs. Northern goshawks occur in North America and Eurasia in a variety of forest habitats. Nests may be built in broadleaf or conifer trees depending on factors such as tree size and species composition, canopy closure, adjacent forage areas, and other factors. In the Eastern North America, goshawks may occur in mixed tree species stands. According to interviews with DNR staff, management for goshawks can be compatible with objectives for conifer retention and regeneration, but must be planned in cooperation with Wildlife and Heritage staff. The Red pine stand may be maintained as part of this species' management. So far, risk of Red pine becoming invasive or causing other effects is very low; Red pine occurs with several of the species of flora and fauna of Western Maryland, though in ecosystems of the Midwest and Northeast of the USA.

FME demonstrated a draft of its Norway spruce guidelines, which references a guideline on limited use of this species under specific circumstances as a possible functional surrogate for the loss of Eastern hemlock due to its similar cover type and longevity.

FME prepared a summary of historical conifer cover using publications from the Maryland Geological Survey dating between 1900-1916. Conifer densities reported over the counties of the Western Region's State Forests were lower in that period and that hardwoods dominated. Harvesting of conifers before and during that time, however, likely reduced their abundance and distribution. During the audit, more information was provided by managers in the Western Region:

Regarding the conifer cover summary, there is no summary available yet that compares the 1900s to today. The 1900 information describes the entire county. At that time, we didn't have the state forest system we have today. Today, we can dissect the county to look at just our state forests, which is what we have done.

Conifer Cover on Western Maryland State Forests

Green Ridge - 441 ac Savage River - 6,600 ac Potomac-Garrett - 964 ac

A 2016 <u>county-wide</u> analysis has not been done, but can be easily within a couple days. It would make an interesting project to see how well the info provided from

	1900 can be compared to today. We will run that data and make that summary and if it looks like a comparison can be made, will include in the next updates to		
	the long-term management plans.		
	While current Sustainable Forest Management Plans and Annual Work Plans for the Western Region contain information about conifer cover and some related objectives, such as Northern goshawk habitat, the recent information added to the analysis is only partially complete and not fully incorporated into the management system. Refer to OBS 2017.1.		
Status of CAR:	Closed		
	Upgraded to Major		
	Other decision (refer to description above)		

	Finding Number: 2016.2			
Select one:	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)			
FCC Indicators	Other deadline (specify): no deadline			
FSC Indicator:	FSC-US, 6.5.d and 6.5.g. Background/ Justification in the case of Observations):			
• •	restrictions on its use may not allow for the timely maintenance and closure needs			
	d and unauthorized trails. The audit team observed instances where trail			
~	sting trails did not occur due to lack of funds or difficulty in obtaining them. There is			
	om stakeholders on the density of trails, particularly its effect on hunting success.			
	nsity of unauthorized trails may result in a loss of productive and protected forest			
	ons on use of trail funds may result on greater opportunities for forestry, heritage			
	f to collaborate on the protection of sensitive resources at reduced cost while			
	a positive recreational experience.			
	quest (or Observation):			
Recreational trails ar	nd water crossings should be maintained, and/or reconstructed to reduce short and			
long-term environme	ental impacts, habitat fragmentation, soil and water disturbance and cumulative			
adverse effects, whil	e 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;				
trail density is minimized;				
 erosion is mi 	nimized;			
 sediment dis 	charge to streams is minimized;			
 there is free 	upstream and downstream passage for aquatic organisms;			
 impacts of tr 	ail systems on wildlife habitat and migration corridors are minimized;			
 area convert 	ed to trails is minimized;			
 habitat fragn 	nentation is minimized;			
 unneeded tra 	ails are closed and rehabilitated.			
	e FMU should be managed to avoid negative impacts to soils, water, plants, wildlife			
and wildlife habitats.				
FME response	While there is still much work to be done regarding the Western Maryland state			
(including any	forests roads and trails, we have made great progress at the same time. Lost Land			
evidence	Run road project was completed in 2016, at a cost over \$725,000. Next in line for			
submitted)	extensive maintenance work are the Gordon Road and Twigg Road projects. The			
	audit team visited these sites as part of a previous audit. This project has been funded at over \$700,000 and will begin engineering, planning and contract release			
	in FY 2018, which begins July 1, 2017.			
	mi i 2010, willon begins saly 1, 2017.			
	All other state forests road projects have been entered into our Critical			
	Maintenance project queue and are waiting for to be funded.			

	Each year the state forests are awarded Recreation Trail Grants from the		
	Maryland State Highway Administration. This grant had been capped at \$30,000		
	per project but has recently been increased to \$40,000. However, this does mean that fewer projects can be funded and these grants have become more		
	competitive.		
	competitive.		
	During a recent meeting with the DNR Secretary, Deputy Secretary and Assistant		
	Secretary, funding for state forest roads and trails was discussed as an issue of		
	importance and how this relates to our forest certification program.		
SCS review	During discussions with FME staff during the audit, it was clear that little else can		
	be done currently to push for greater flexibility in funding for road and trail		
	maintenance. As the FME details above, collaboration on larger projects already		
	occurs. While progress has been made in communicating the benefits of greater		
	flexibility and collaboration on smaller projects, this may be a long-term effort		
	that requires support from key stakeholders. In the meantime, FME is prioritizing		
	maintenance projects by fixing critical points in the road and trail system, as		
	observed in the field and confirmed in interviews with staff.		
Status of CAR:	X Closed		
	Upgraded to Major		
	Other decision (refer to description above)		

	Finding Number: 2016.3			
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, 6.9.a			
staff, there was disculoss of native conifer the currently planted Siberian crapabble is	Non-Conformity (or Background/ Justification in the case of Observations): During interviews with FME staff, there was discussion on possibly expanding the use of Norway spruce and Red pine to mitigate the loss of native conifers, and to continue to serve as habitat for RTE species. Any expanded use beyond the currently planted area would have to be justified and based on scientific data. Siberian crapabble is no longer produced in the state nursery, but has been used in the past on early successional habitat projects. State seed mixes for use on log landings and other sensitive areas include			
Siberian crabapple a				
	quest (or Observation):			
that any such species	cies should be contingent on the availability of credible scientific data indicating sare non-invasive and that their application does not pose a risk to native g any significant displacement of native species.			
FME response	No non-native species have been planted on State Forests in recent years. With			
(including any evidence submitted)	the rise of white tail deer populations and the resulting increased pressures on forest regeneration, the difficulty in securing red spruce seedlings and the continued threat on native hemlock from Hemlock Wooly Adelgid, non-native alternatives, specifically Norway spruce, have been considered as a viable option in returning conifers to the forest landscape of Western Maryland. This could be just part of a larger plan which would include favoring native conifers already in the stand and managing already established non-native conifer plantations such as red pine and Norway spruce.			
	See 2016.1 FMU response and Norway Spruce in Forest Management.			
SCS review	FME demonstrated a draft of its Norway spruce guidelines, which references a guideline on limited use of this species under specific circumstances as a possible functional surrogate for the loss of Eastern hemlock due to its similar cover type and longevity. Red pine options are discussed in OBS 2016.1. Potential options for expanded use of Norway spruce and Red pine should be incorporated into management planning documents, as is currently underway. Refer to OBS 2017.1.			
Status of CAR:	Closed Upgraded to Major X Other decision (refer to description above)			

	Finding Number: 2016.4			
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)			
FSC Indicator:	Other deadline (specify): no deadline FSC-US, 7.1.b, 7.1.c and 7.1.e.			
	Background/ Justification in the case of Observations):			
I	an describes the history of land use and past management, current forest types and			
	nent, size class and/or successional stages, and natural disturbance regimes that			
	Indicator 6.1.a). However, the historical presence of conifers in the management			
	ded to include the knowledge presented by local forestry staff during the audit,			
	the stage for conifer objectives on the landscape.			
willen could help set	the stage for conner objectives on the landscape.			
FSA plans may not be	e being completed on time according to draft annual work plans reviewed.			
	rafts, ESA plans for FY2017 were to be completed over the winter of 2016. A failure			
_	ans may result in limited opportunities to avoid negative impacts to these areas,			
	ve management may benefit the species or communities found in them. ESA			
	et the stage for the implementation of maintenance and recovery objectives for			
	ensitive ecosystems, as well as detail monitoring strategies that are compatible			
with these objectives				
•	quest (or Observation):			
	cribe historical ecological conditions, history of land use and past management,			
	and associated development, size class and/or successional stages, and natural			
	that affect the FMU (see Indicator 6.1.a).			
_				
The FMP, specifically	for ESAs, should include a description of the following resources and outline			
activities to conserve	and/or protect:			
 rare, threate 	ned, or endangered species and natural communities (see Criterion 6.2);			
 plant species 	and community diversity and wildlife habitats (see Criterion 6.3);			
 Representati 	ve Sample Areas (see Criterion 6.4);			
High Conserv	vation Value Forests (see Principle 9);			
Other special management areas.				
FME response	We have met with the Wildlife & Heritage Service (WHS) leadership with the sole			
(including any	purpose of continuing the development of the Ecologically Significant Area data			
evidence	for the Western Maryland state forests. The WHS staff person who has started			
submitted)	this work by outlining the ESA areas has not completed this work yet. While this			
	project is important to our forest management planning efforts, it is not within			
	our authority to force this work to be done. We have and will continue to address			
	this issue with DNR staff and look for creative alternatives.			
SCS review	The portion of the OBS on conifers in the Western Region (7.1.b and 7.1.c) has			
	been continued and expanded upon in OBS 2017.1 . In 2016, the FY2017 Annual			
	Work Plans (AWPs) were still under draft and thus the issue with incomplete			
	AWPs was not a nonconformity. While many of the sensitive resources in			
	question may be maintained under passive management, the AWPs are being			

	implemented without sufficient review from Natural Heritage staff. Not only is	
	review of options for conservation and/or maintenance of RTE species and	
	communities an integral part of the FME's procedures, it also is something that	
	stakeholders expect from FSC-certified entities. Refer to Minor CAR 2017.2.	
Status of CAR:	Closed	
	Upgraded to Major	
	X Other decision (refer to description above)	

4.2 New Corrective Action Requests and Observations

	Finding Number: 2017.1
Select one: Maj	or CAR Minor CAR X Observation
FMU CAR/OBS issued	I to (when more than one FMU):
Deadline	Pre-condition to certification/recertification 3 months from Issuance of Final Report 12 months or next audit (surveillance or re-evaluation) X Observation – response is optional Other deadline (specify):
FSC Indicator:	FSC-US 7.1.b, 7.1.c., and 7.1.d

Non-Conformity (or Background/ Justification in the case of Observations): Continuation of OBS 2016.1, 2016.3, and 2016.4. According to interviews with FME staff, the Sustainable Forest Management Plans (SFMPs) for the Western Region are currently being revised for several reasons, including updating the information about the historical presence of conifers in the landscape and desired future conditions for these species. Some options for conifer management are being exercised as described in Annual Work Plans (AWPs), as in the case of the Northern goshawk.

The SFMPs describe the history of land use and past management, current forest types and associated development, size class and/or successional stages, and natural disturbance regimes that affect the FMU (see Indicator 6.1.a). However, the historical presence of conifers in the management plan could be expanded to include the knowledge presented by local forestry staff in 2016, which could help set the stage for conifer objectives on the landscape.

FME is considering expanding the use of native (e.g., Eastern white pine, Eastern hemlock, Virginia pine, Shortleaf pine, etc.) and non-native conifers (e.g., Norway spruce and Red pine) on certain sites as a wildlife management component, to restore native species (both conifer and broadleaf), and possibly to adapt to climate change and invasive pests/ pathogens. At the landscape level, FME has completed a partial assessment of the conifer cover as described in its response to OBS 2016.1, but a way to compare the county-level information from the early 1900s to today is incomplete. Information on current conifer cover on Western State Forests is complete.

At the landscape level, the desired future condition of the native and non-native conifer component, including selection of species that will meet social, economic, and ecological objectives depending on site conditions, has not been fully completed. FME staff pointed out that maintenance of current conditions may be desirable in many instances. However, opportunities to explore connectivity between conifer cover types for wildlife movement, hydrology or other objectives could be explored.

Corrective Action Request (or Observation): The EMP should describe historical ecological conditions, history of land use and past management.				
The FMP should describe historical ecological conditions, history of land use and past management, current forest types and associated development, size class and/or successional stages, and natural				
,,	that affect the FMU (see Indicator 6.1.a).			
distarbance regimes t	and uncer the rivio (see maleator o.1.a).			
The FME should descr	ribe a) current conditions of the timber and non-timber forest resources being			
managed; b) desired f	future conditions; c) historical ecological conditions; and d) applicable management			
objectives and activiti	es to move the FMU toward desired future conditions			
FME response				
(including any				
evidence submitted)				
SCS review				
Status of CAR:	Closed			
	Upgraded to Major			
	U Other decision (refer to description above)			
	Finding Number: 2017.2			
	or CAR X Minor CAR Dbservation			
FMU CAR/OBS issued	l to (when more than one FMU):			
Deadline	Pre-condition to certification/recertification			
	3 months from Issuance of Final Report			
	12 months or next audit (surveillance or re-evaluation)			
	Observation – response is optional			
	Other deadline (specify):			
FSC Indicator:	FSC-US 7.1.e.			
Non-Conformity (or B	ackground/ Justification in the case of Observations): Upgrade of OBS 2016.4. In 2016,			
•	ork Plans (AWPs) were still under draft and thus the issue with incomplete AWPs			
was not a nonconforn	nity. While many of the sensitive resources in question may be maintained under			
passive management,	the AWPs are being implemented without sufficient review from Natural Heritage			
staff. Not only is review	staff. Not only is review of options for conservation and/or maintenance of RTE species and communities			
an integral part of the	FME's procedures, it also is something that stakeholders expect from FSC-certified			
entities to conform to	indicator 7.1.e. The AWPs are a component of the management plan.			
According to interview	ws with FME staff, of concern is the sensitive nature of some of the natural heritage			
information. As is the case in most states, confidential information may be excluded from publicly				
available documents in order to protect the resource.				

Corrective Action Rec	quest (or Observation): The FMP shall include a description of the following resources			
and outline 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 	re Sample Areas (see Criterion 6.4);			
High Conserva	ation Value Forests (see Principle 9);			
 Other special 	management areas.			
FME response				
(including any				
evidence submitted)				
SCS review				
Status of CAR:	Closed			
	Upgraded to Major			
	Other decision (refer to description above)			
	Finding Number: 2017.3			
Select one: X Maj	or CAR			
FMU CAR/OBS issued	to (when more than one FMU):			
Deadline	Pre-condition to certification/recertification			
	3 months from Issuance of Final Report			
	12 months or next audit (surveillance or re-evaluation)			
	Observation – response is optional			
	Other deadline (specify):			
FSC Indicator:	FSC-STD-50-001 V1-2, 1.15, 1.16, and 6.1.			
Non-Conformity (or B	ackground/ Justification in the case of Observations):			
The appropriate trade	emark symbol (® in superscript font) does not accompany the first use of "FSC" and			
"Forest Stewardship Council" on the FME's website.				
No trademark approv	al records for the three detected uses were available (brochure, website, and AWP			
template).				
The website does not have the promotional panel, or at least the FSC trademark license code, in a				
prominent place.				
Corrective Action Rec	• • •			
· · · · · · · · · · · · · · · · · · ·	corrective actions to resolve the nonconformities described above.			
FME response	FME emailed evidence on 28 April 2017 for the SCS logo use approval			
(including any	(recorded 20 April 2017) of the county guide.			
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

ENGOs	Educational institutions
Industry groups	Citizen Advisory Council 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 resulting from					
stakeholder outreach activities during this annual audit.					
Stakeholder comments	SCS Response				
Economic concerns					
None received.					
Social concerns					
I would like to see:	1. All Citizens Advisory Committee (CAC) meetings and				

- 1. A list of the CAC meetings for the past 2 years, and what representatives attended each one.
- 2. How the annual work plans were advertised for public comment (beyond just posting them on the DNR website). For instance: in the newspaper? What newspapers, when. On the radio? What stations, when.
- 3. 8 likes on Facebook? I get more from posting a picture of my lunch. hardly any Twitter traffic?

 No newspapers on the Eastern Shore?

 Announcement came out Christmas week?

As has been a problem for years...very little effort to get public comment. Almost seems they don't want any comments. And have they replied to those who commented via the website?

attendance records are included in Annual Work Plans (AWPs) on each State Forest's website. For example, when you refer to

http://dnr.maryland.gov/forests/Pages/chesapeakefores tlands.aspx, the AWPs are in PDF format as cited in the left-hand column of the webpage. Within each of those plans you will see the CAC meetings and comments. It is similar for Pocomoke

(http://dnr.maryland.gov/forests/Pages/publiclands/eastern pocomokeforest.aspx) and the other State Forests.

2. FME staff worked with the DNR Director of Communications to disseminate the public comment efforts. FME also works through the DNR-IT program to get the webpage setup.

For the work plans, FME posted the release on the DNR news page, shared it with press via an email message and with the public via the monthly newsletter. The release was also displayed on social media channels.

Communications facilitated comments and questions from the public with assistance from FME staff.

Communications also uses a service to monitor and distribute media clips and mentions, which it shares with staff and others in the government each business day.

SCS confirmed these actions via email records, files, websites, and interviews with FME staff. For example, the following announcements were verified:

Twitter >> https://twitter.com/search?q=%22State%20f orest%20work%20plans%20released%22&src=typd Facebook >> https://www.facebook.com/search/top/?q =%E2%80%9CState%20Forest%20Work%20Plans%20Rel eased%E2%80%9D

DNR online newsletter

>> http://news.maryland.gov/dnr/2016/12/19/state-forest-work-plans-released/

Western Maryland newspaper

DNR makes the story available, the newspapers decide whether to run it or not. Cumberland Times ran it.

3. In regards to media outlets, FME sends the announcement to multiple outlets and the managers/ editors of those organizations decide which stories to run, which was confirmed in email records. FME has no control over which stories are selected for publication.

As for Twitter and Facebook, FME has no control over who decides to like or retweet them.

The announcement came out on December 19. According to interviews with staff, it was FME's intention to have the news release go out after January 1, which was communicated to the Communications team, but ultimately that decision was in the hands of the DNR Communications Director. There is usually a delay in getting announcements posted, but this one went out very quickly.

The FME normally does not reply directly to comments received, but will if their nature requires clarification or needs to be addressed quickly.

While comments deserve attention, many comments are not specific, addressing an opinion rather than a specific work plan proposal. For example, comments are frequently received that oppose any timber harvest on state lands. As part of the FME's public mandate is to manage forests for multiple values, including timber, these types of comments are rarely given a response. This year, there was one forest harvest proposal of concern to a stakeholder group in the Savage River State Forest Annual Work Plan, and FME responded directly and invited the constituents to meet with the forest manager in the office or at the site. The stakeholder group so far has not accepted the invitation. These comments were verified via communication records and interviews with FME staff since the AWP for 2018 is still under development.

FME has met with various constituents over the years when issues arise over its forest management practices and continues to do so. Also, FME received two comments from Eastern Shore constituents. All comments from the AWP review process become part of the official annual work plan when completed. Final AWPs are all made publicly available online on the DNR website. These actions were verified through email records, visitor logs, review of AWPs, and interviews with FME staff.

SCS concludes that the FME uses multiple outlets to receive stakeholder feedback and responds to substantiated comments in a timely manner. The FME

Ì		leo has a Citizons Advisor	ry Committe	ae (CAC) which	
	also has a Citizens Advisory Committee (CAC), which includes members of environmental, social, economic,				
		and tribal concerns. Members are rotated periodically			
		to ensure that different citizens and organizations may			
		be represented. A recreational member of the CAC			
		commented during the audit that their constituents now			
		can learn about forest management planning and the			
		rationale behind harvests in discussion with FME staff.			
	No non-conformance is warranted.				
Environmental conc					
None received.					
6. Certification					
The certificate holde	r has demonstrated contir	nued overall conformanc	e to the		
applicable Forest Ste	wardship Council standard	ds. The SCS annual audit	team	Yes X No	
	e certificate be sustained,	•	nnual		
audits and the FME's	response to any open CA	Rs.			
Comments:					
7. Changes in	Certification Scop	е			
Any changes in the se	cope of the certification si	nce the previous audit a	re highlight	ed in <mark>yellow</mark> in the	
Any changes in the setables below.	cope of the certification si	nce the previous audit a	re highlight	ed in <mark>yellow</mark> in the	
	cope of the certification si	nce the previous audit a	re highlight	ed in <mark>yellow</mark> in the	
		nce the previous audit a	re highlight	ed in <mark>yellow</mark> in the	
tables below. Name and Contact	Information		re highlight	ed in <mark>yellow</mark> in the	
tables below.			re highlight	ed in <mark>yellow</mark> in the	
Name and Contact Organization name	Information State of Maryland DNR – Jack Perdue	- Forest Service		ed in <mark>yellow</mark> in the	
Name and Contact Organization name Contact person	Information State of Maryland DNR – Jack Perdue 580 Taylor Ave, E1		410-26		
Name and Contact Organization name Contact person	Information State of Maryland DNR – Jack Perdue	- Forest Service Telephone	410-26 410-26	60-8505 60-8595	
Name and Contact Organization name Contact person	Information State of Maryland DNR – Jack Perdue 580 Taylor Ave, E1	- Forest Service Telephone Fax	410-26 410-26 jack.pd	60-8505 60-8595 erdue@maryland.gov	
Name and Contact Organization name Contact person	Information State of Maryland DNR – Jack Perdue 580 Taylor Ave, E1 Annapolis, MD 21401	- Forest Service Telephone Fax e-mail	410-26 410-26 jack.pd	60-8505 60-8595	
Name and Contact Organization name Contact person Address FSC Sales Informat	Information State of Maryland DNR – Jack Perdue 580 Taylor Ave, E1 Annapolis, MD 21401	Telephone Fax e-mail Website	410-26 410-26 jack.pd	60-8505 60-8595 erdue@maryland.gov	
Name and Contact Organization name Contact person Address FSC Sales Informat	Information State of Maryland DNR – Jack Perdue 580 Taylor Ave, E1 Annapolis, MD 21401	Telephone Fax e-mail Website	410-26 410-26 jack.pd	60-8505 60-8595 erdue@maryland.gov	
Name and Contact Organization name Contact person Address FSC Sales Informat X FSC Sales contact	Information State of Maryland DNR – Jack Perdue 580 Taylor Ave, E1 Annapolis, MD 21401	Telephone Fax e-mail Website	410-26 410-26 jack.pd	60-8505 60-8595 erdue@maryland.gov	
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		G	roup		
SLIMF (if applicable)		Sr	nall SLIMF		ow intensity SLIMF
		certif		certif	•
			oup SLIMF certi	ficato	
# Group Members (<i>if app</i>	licable)	0	oup stilvir certi	iicate	
Number of FMUs in scope		1			
Geographic location of no		_	de & Longitude:		
• .	`,		e River State Fo	rest- 39.5	576, -79.129
		Greer	n Ridge State For	est- 39.6	31, -78.475
		Potor	nac State Forest	- 39.472,	-79.439
		Garre	tt State Forest- 3	39.341, -7	79.28
		Pocor	noke State Fores	st- 38.15,	-75.487
		Chesa	peake Forest La	nds - 38.3	329, -75.799
Forest zone		В	oreal	X Tem	perate
		Sı	ıbtropical	Trop	pical
Total forest area in scope	of certificate which is:			Ur	nits: ha or x ac
privately manage	d				
state managed					panded, some yet to
		be cla	ssified for mana	<mark>gement.</mark>	
community mana					
Number of FMUs in scope	e that are:	ı			T
less than 100 ha in area			1000 ha in area		
1000 - 10 000 ha in area		more	than 10 000 ha i	n area	1
Total forest area in scope		cluded	in FMUs that:	ι	Jnits: ha or X ac
are less than 100 ha in are					
are between 100 ha and 1					
meet the eligibility criteria as low intensity SLIMF F					
Division of FMUs into manageable units:					
	nageable units:				
FME considers two forest	nageable units: regions based on regiona	al fores	• •		~
FME considers two forest then divides the state for	nageable units: regions based on regiona est system into four geog	al fores	districts. Under	each geo	graphic district there
FME considers two forest then divides the state fore are state forests, which a	nageable units: regions based on regional est system into four geog re then managed accordi	al fores raphic ng to a	districts. Under state forest-leve	each geo I long-te	graphic district there rm management plan
FME considers two forest then divides the state for are state forests, which a and annual work plan. A	nageable units: regions based on regional est system into four geog re then managed accordinal full description of how th	al fores raphic ng to a e FMU	districts. Under state forest-leve is divided into m	each geo I long-te	graphic district there rm management plan
FME considers two forest then divides the state for are state forests, which a	nageable units: regions based on regional est system into four geog re then managed accordinal full description of how th	al fores raphic ng to a e FMU	districts. Under state forest-leve is divided into m	each geo I long-te	graphic district there rm management plan

Timber Forest Products	Units: ha or X ac
Total area of production forest (i.e. forest from which timber may be	135,101
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	2.4 mmbf under vol
AAH where available) of commercial timber (m3 of round wood)	regulation, plus
	780 ac under area regulation
Non-timber Forest Products (NTFPs)	-
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 v	which AAH and NTFP harvest
rates estimates are based:	
See SFMP Chapter 5, Appendix H and CFI Summary for each State Forest.	
Woodstock program to analyze forest inventory data to project sustainab	
allowed silvicultural systems. Harvest rates are based on area control rat	
currently. For example, the Green Ridge SFMP includes a description of t	he maximum number of acres
that may be treated with variable retention harvests.	
Appendix H includes a description of the assumptions behind the growth	
the elements of the indicator. Summaries of projected growth and allows	able narvests based on growth
rates, mortality, disease, etc. are included in Appendix H.	Common / Tundo Nomo)
Species in scope of joint FM/COC certificate: (Scientific / Latin Name and	
Acer rubrum; Acer spp.; Carya spp.; Celtis occidentalis; Fagus grandifolia; Liquidambar styraciflua L.; Liriodendron tulipifera L.; Nyssa sylvatica Mars	
Pinus serotina; Quercus spp.; Quercus alba; Quercus rubra; Tilia american	
- i mas serodina, quercas spp ., quercas aiba, quercas rubia, rilla afficillan	u L, isugu canauchsis (L.)

FSC Product Classification

Carr.; Ulmus spp.

Timber products			
Product Level 1	Product Level 2	Species	
W1 Rough Wood	W1.1 Roundwood (logs)	All	
	W1.2 Fuel Wood		

	W1.3 Twigs	
W3 Wood in chips or	W3.1 Wood chips	All
particles		
Non-Timber Forest Produ	icts	
Product Level 1	Product Level 2	Product Level 3 and Species

Conservation Areas

Total area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives:				
High Conservation Value Forest / Areas High Conservation Values present and respective areas: ac Units: ha or				
Code	HCV Type	Description & L	ocation	Area
HCV1	Forests or areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).	Ecologically Significant/Wildlands region; Ecologically Significant/Wildlands region	s - Eastern	15,226 16,656
HCV2	Forests or areas containing globally, regionally or nationally significant 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.			
HCV3	Forests or areas that are in or contain rare, threatened or endangered ecosystems.	Core FIDs habitat; core DFS habitat – Ea region; old growth and old g management – West	rowth	18,484 24,874
HCV4	Forests or areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).	Riparian Buffer Areas region; Riparian Buffer Areas region	s – Eastern	38,274 2,145
HCV5	Forests or areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).			

HCV6	Forests or areas critical to local		
	communities' traditional cultural identity		
	(areas of cultural, ecological, economic or		
	religious significance identified in		
	cooperation with such local		
	communities).		
Total Area of forest classified as 'High Conservation Value Forest / Area' 71,984		71,984	

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.			
X Applicant owns and/or manage	es other FMUs not under evaluation.		
Applicant wishes to excise port	ions of the FMU(s) under evaluation	from the scope of certification.	
Explanation for exclusion of	These other state forests see very	little silvicultural activity and are	
FMUs and/or excision:	relatively small in acreage. We ha	ve no interest in pursuing	
	certification currently on these la	nds.	
Control measures to prevent	These additional properties are not located near the areas included		
mixing of certified and non-	in the current or expanded certification scope. Harvesting is very		
certified product (C8.3):	limited and usually for the purpose of salvage or demonstration.		
	These properties are not allowed to use the FSC certificate or		
	license codes.		
Description of FMUs excluded from, or forested area excised from, the scope of certification:			
Name of FMU or Stand	Location (city, state, country)	Size (ha or X ac)	
Elk Neck State Forest	Northeast, MD, Cecil	3,380	
Cedarville State Forest	Brandywine, MD, Prince Georges	3,625	
Doncaster Demonstration Forest	Ironsides, MD, Charles	1,953	
Stoney Demonstration Forest	Aberdeen, MD, Harford	318	
Salem State Forest	Leonardtown, MD, St Mary's	837	

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: 27 # of female workers: 9		
Number of accidents in forest work since last audit: Serious: 0 Fatal: 0		

8.2 Annual Summary of Pesticide and Other Chemical Use

Maryland DNR Forest Service :: 2016	, , , , , , , , , , , , , , , , , , ,	(over approx. last 12	
3ervice 2016		months)	

Forest	Commercial name of pesticide/ herbicide	Active ingredient	Quantity applied annually (kg or lbs)	Size of area treated during previous year (ha or ac)	Reason for use
e.g. Savage River State Forest	Gly 4	Glyphosate	2 gal (2 % solution)	1 acre	Weed Control
Savage River State Forest	Arsenal AC	lmazapyr	76.5 oz. active ingredient	102 acres	Hardwood cut surface (hack and squirt)
Savage River State Forest	Razor Pro	Glyphosate	2 lbs active ingredient/acre	102 acres	Foliar spray for fern, grass and sedge control
Savage River State Forest	Oust XP	Sulfometuron ethyl	1.5 oz active ingredient/acre	102 acres	Foliar spray for fern, grass and sedge control
Savage River State Forest	Gly 4	Glyphosate	36 oz. of active ingredient	2 acres	Invasive species control (Japanese knotweed)
Savage River State Forest	Gly 4 Plus	Glyphosate	48 oz. of active ingredient	8 acres	Foliar spray for fern control
Savage River State Forest	Round-Up Pro Dry	Glyphosate	22.5 oz. of active ingredient	8 acres	Hardwood cut surface (hack and squirt)
Savage River State Forest	Garlon 4 Ultra	Triclopyr	48 oz. of active ingredient	8 acres	Hardwood cut surface (hack and squirt)
Green Ridge State Forest	Vanquish	Dicamba	16 OZ	30 acres 100 stems	Ailanthus control
Green Ridge State Forest	Roundup Pro Concentrate	Glyphosate	84 OZ	54 acres, 600 stems	Ailanthus control
Potomac Garrett State Forest (32-5) Potomac Garrett State	Arsenal AC	Imazapyr	3% solution on 25ac. = 31 oz.	25ac.	TSI Woody veg. control fern and grass/foliar
Forest (32-5) Potomac Garrett State	Razor Pro	Glyphosate Sulfometuron	2#/ac. on 25 ac. = 50# 1.5 oz./ac on	25ac.	spray fern and grass/foliar
Forest (32-5) Potomac Garrett State	Oust	methyl	25ac. = 37.5oz. 3% solution on	25ac.	spray TSI Woody veg.
Forest (32-6) Potomac Garrett State Forest (32-7)	Arsenal AC Razor Pro	Imazapyr Glyphosate	15ac. = 10.5 oz. 2#/ac. on 18 ac. = 36#	15ac. 18ac.	control fern and grass/foliar spray
Potomac Garrett State Forest (32-7) Potomac Garrett State	Oust	Sulfometuron methyl	1.5 oz./ac on 18ac. = 27oz. 2#/ac. on 45	18ac.	fern and grass/foliar spray fern and grass/foliar
Forest (32-33) Potomac Garrett State	Razor Pro	Glyphosate Sulfometuron	ac. = 90# 1.5 oz./ac on	45ac.	spray fern and grass/foliar
Forest (32-33) Potomac Garrett State Forest (7.5)	Oust Pro	methyl	45ac. = 67.5oz. 2#/ac. on 19	45ac.	spray fern and grass/foliar
Forest (7-5) Potomac Garrett State Forest (7-5)	Razor Pro Oust	Glyphosate Sulfometuron methyl	ac. = 38# 1.5 oz./ac on 19ac. = 28.5oz.	19ac. 19ac.	fern and grass/foliar spray

Datamas Carrett State			20/ solution on		TCLWoodyyaa
Potomac Garrett State			3% solution on	4.0	TSI Woody veg.
Forest (7-5)	Arsenal AC	Imazapyr	19ac. = 13.3 oz.	19ac.	control
Potomac Garrett State			2% solution on		
Forest (Spruce			100 sq.ft.		Grass Control in
Planting)	Arsenal AC	Imazapyr	=.5oz.	100 sq.ft.	Spruce Planting
Potomac Garrett State			2% solution on		Non-native Invasive
Forest (Comp					Species Hack and
17,25,41)	Arsenal AC	Imazapyr	1 stem =.01 oz.	1 stem	Squirt
			3% solution on		
Potomac Garrett State			200 sq. ft. = 2		Non-native Invasive
Forest (Comp 7)	Gly 4	Glyphosate	OZ.	200 sq.ft.	Species Foliar
Potomac Garrett State			3% solution on		Non-native Invasive
Forest (Comp 19)	Gly 4	Glyphosate	<1 ac. = 1/2 oz.	<1 ac.	Species Cut Surface
			2 oz. / ac. On		
Potomac Garrett State		Sulfometuron	2400 sq.ft. =		
Forest (Comp 35)	Oust xp	methyl	.36 oz.	2400 sq.ft.	dewberry foliar spray
Pocomoke State			1.5 gal (2%	7,400 sq.	Invasive grass/weed
Forest	Makaze	Glyphosate	solution)	ft/0.17 ac.	control
			10.125 gal (2 %	21,400 sq.	Invasive grass/weed
Chesapeake Forest	Makaze	Glyphosate	solution)	ft/0.49 ac.	control
		Imazapyr+Met			
	Arsenal+Esc	sulfuron	1622		
Chesapeake Forest	ort+Herbim	Methyl+Petrol	16oz+2oz+2.5o	36.7 ac.	Hardwood control
	ax	eum	Z		
		Surfactant			
		Imazapyr+Petr			
	Arsenal+Her	oleum	8oz+2.5oz		
Chesapeake Forest	bimax	Surfactant		26.8	Hardwood control

SECTION B – APPENDICES (CONFIDENTIAL)

Appendix 1 – List of FMUs Selected for Evaluation

X FME consists of a single FMU

FME consists of multiple FMUs or is a Group

Appendix 2 - List of Stakeholders Consulted

List of FME Staff Consulted







List of other Stakeholders Consulted

Name	Organization	Contact Information	Consultation method	Requests Cert. Notf.
Joan Maloof	Executive Director, Old-Growth	JEMALOOF@salisbury	Email	Υ
	Forest Network; and Professor	<u>.edu</u> ; 410-251-1800		
	Emeritus, Salisbury University			
Marty	Renshaw Logging	Bus. (410) 543-2757	Field	N
Renshaw		Cell (410) 726-2166		

An email was sent to stakeholders in advance of the audit to ask for comments. One comment was received. No stakeholders contacted by phone returned any calls. See daily sign-in sheets (PDF files above) for CAC members.

Appendix 3 - Additional Audit Techniques Employed

Х	None.
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Additional techniques employed (*describe*):

Appendix 4 - Pesticide Derogations

There are no active pesticide derogations for this FME.

Appendix 5 – Detailed Observations

Criteria required by FSC at every surveillance audit (check all situations that apply)	NA – all FMUs are exempt from these requirements. Plantations > 10,000 ha (24,710 ac): 2.3, 4.2, 4.4, 6.7, 6.9, 10.6, 10.7, and 10.8 Natural forests > 50,000 ha (123,553 ac) ('low intensity' SLIMFs exempt):
	1.5, 2.3, 3.2, 4.2, 4.4, 5.6, 6.2, 6.3, 8.2, and 9.4

	X FMUs containing High Conservation Values ('small forest' SLIMFs exempt): 6.2, 6.3, 6.9 and 9.4
Documents and records reviewed for FMUs/ sites sampled	All applicable documents and records as required in section 7 of audit plan were reviewed; or
	The following documents and records as required in section 7 of the audit plan were NOT reviewed (<i>provide explanation</i>):

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, 5.6, 6.2, 6.3, 6.5, 6.6, 6.9, 7.1, 7.2, 7.4, 8.2,
	8.3 (COC indicators for FMEs) and 9.4
2016	1.1, 1.2, 1.4, 1.5, 2.3, 3.2, 4.1, 4.2, 4.3, 4.4, 4.5, 5.5, 5.6, 6.2, 6.3, 6.7, 6.8, 6.9, 6.10,
	7.3, 8.2 and 9.4
2017	See also mandatory Criteria; and 2.1, 2.2, 3.3, 6.1, 8.1, 8.4, and 8.5.
2018	See also mandatory Criteria; and 5.1, 5.2, 5.3, 5.4, 6.4, 9.1, 9.2, and 9.3.

C= Conformance with Criterion or Indicator

NC= Nonconformance with Criterion or Indicator

NA = Not Applicable

NE = Not Evaluated

Abbreviations for Maryland DNR State Forests which may be used in this checklist:

CF/PSF = Chesapeake Forest / Pocomoke State	PGSF = Potomac Garrett State Forest		
Forest	S/FMP = Sustainable/ Forest Management Plan		
DFS = Delmarva Fox Squirrel	SRSF = Savage River State Forest		
ESA = Ecologically Sensitive Area	ROW = Right-of-way		
FIDS = Forest Interior Dwelling Species	RTE = Rare, threatened or endangered		
GRSF = Green Ridge State Forest			

REQUIREMENT	C/NC	COMMENT/CAR		
Principle #1: Compliance with Laws and FSC Principles	Principle #1: Compliance with Laws and FSC Principles			
Forest management shall respect all applicable laws of the cour	itry in wh	ich they occur, and international treaties and		
agreements to which the country is a signatory, and comply wit	h all FSC I	Principles and Criteria.		
1.1 Forest management shall respect all national and local	NE			
laws and administrative requirements.				
1.2. All applicable and legally prescribed fees, royalties, taxes	NE			
and other charges shall be paid.				
1.3. In signatory countries, the provisions of all binding	NE			
international agreements such as CITES, ILO Conventions,				
ITTA, and Convention on Biological Diversity, shall be				
respected.				
1.4. Conflicts between laws, regulations and the FSC Principles	NE			
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 protected from illegal	С	
harvesting, settlement and other unauthorized activities.		
1.5.a. The forest owner or manager supports or implements	С	FME has a department of Natural Resources
- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		
measures intended to prevent illegal and unauthorized		Police (NRP) that regularly patrol state lands to
activities on the <i>Forest Management Unit</i> (FMU).		prevent and detect unauthorized activities. In
		addition, FME gates roads and posts signage that
		cites applicable laws and regulations.
1.5.b. If illegal or unauthorized activities occur, the forest owner	С	FME did not report any significant illegal or
or manager implements actions designed to curtail such		unauthorized activities since the last audit. Per
activities and correct the situation to the extent possible for		interviews with staff, FME's NRP prosecutes or
meeting all land management objectives with consideration of		fines violators. NRP also works with local law
available resources.		enforcement to deal with more complex
		situations involving illegal activities, such as
		marijuana operations. FME staff regularly clean
		up dump sites to avoid attraction. Interviews
		with staff indicate that outside of this occasional
		dumping, there have been no major illegal or
		unauthorized activities.
1.6. Forest managers shall demonstrate a long-term	NE	
commitment to adhere to the FSC Principles and Criteria.		
Principle #2: Long-term tenure and use rights to the land and for	rest resou	urces shall be clearly defined, documented and
legally established.		•
2.1. Clear evidence of long-term forest use rights to the land	С	
(e.g., land title, customary rights, or lease agreements) shall be		
demonstrated.		
2.1.a The forest owner or manager provides clear evidence of	С	See Tax Maps and Deed Descriptions via
long-term rights to use and manage the FMU for the purposes		MDLandRec.net (Digital Image Retrieval System
described in the management plan.		for the lands of MD). Copies of deeds are
		maintained at each State Forest Office. Jean
		Lipphard, Land Acquisition & Planning (LAP) /
		Annapolis, has originals. A sample of deeds was
		shown for the Chesapeake and Pocomoke State Forests; these files are maintained in local offices
		in binders.
2.1.b The forest owner or manager identifies and documents	С	FME's legal department (Office of the Attorney
legally established use and access rights associated with the		General) maintains records of use and access
FMU that are held by other parties.		rights, such as deeded rights-of-way. LAP
		maintains original documents.
2.1.c Boundaries of land ownership and use rights are clearly	С	Boundaries are painted and sometimes include
identified on the ground and on maps prior to commencing		signs, but ROW and easements are not. FME has
	1	1
management activities in the vicinity of the boundaries.		internal roads and ROW mapped. All property boundaries observed on the Eastern State

		Forests were clearly signed and/or painted.
		These are also visible on maps. Harvests observed in 2017 had property boundary tree
		painted and retention trees near property boundaries were evident.
2.2. Local communities with legal or customary tenure or use	С	boundaries were enache
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.		
2.2.a The forest owner or manager allows the exercise of <i>tenure</i>	С	See evidence presented in C2.1. There are hunt-
and <i>use rights</i> allowable by law or regulation.		leases on the Chesapeake State Forest for which
		contracts were demonstrated for files
		maintained in FME offices. All other State Forests allow public hunting and other use rights,
		such as plant collection, via a permit system.
		Signage on property boundaries indicates if
		public hunting is allowed. Powerline ROWs are
		mapped and easily identifiable in the field since
2.2.1. F2.40. It is a single-ball by a barrance of a		the power company keeps them clear.
2.2.b In FMUs where tenure or use rights held by others exist,	С	See evidence presented in C2.1. Per hunt lease
the forest owner or manager consults with groups that hold		requirements on Chesapeake, FME maintains communications over timber sales as timber
such rights so that management activities do not significantly		harvests are used to promote wildlife habitat.
impact the uses or benefits of such rights.		, , , , , , , , , , , , , , , , , , ,
2.3. Appropriate mechanisms shall be employed to resolve	С	
disputes over tenure claims and use rights. The circumstances		
and status of any 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		
2.3.a If <i>disputes</i> arise regarding tenure claims or use rights then	С	FME staff reported no new disputes over tenure
the forest owner or manager initially attempts to resolve them	٦	claims or use rights. There are several cases that
- ' ' '		_
through open communication, negotiation, and/or mediation. If these good-faith efforts fail, then federal, state, and/or local		are open related to encroachment onto state forests from adjacent landowners. Each state
laws are employed to resolve such disputes.		forest maintains its own records, but the land
2.3.b The forest owner or manager documents any significant	С	planning office may become involved in
disputes over tenure and use rights.		reviewing records and survey information. FME's
disputes over tenure and use rights.		lawyers at headquarters review boundary
		disputes and encroachment, and take the final
		actions to resolve these issues.
Principle #3: The legal and customary rights of indigenous people		

Principle #3: The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.

3.1. Indigenous peoples shall control forest management on	NE	
their lands and territories unless they delegate control with	''-	
free and informed consent to other agencies.		
3.2. Forest management shall not threaten or diminish, either	NA	
directly or indirectly, the resources or tenure rights of		
indigenous peoples.		
3.2.a During management planning, the forest owner or	NA	There are no tribal forest management or
manager consults with American Indian groups that have legal		ownership/ use rights on FME lands. There are
rights or other binding agreements to the FMU to avoid		no sites of special tribal significance on the
harming their resources or rights.		certified FMU. There are no tribes with legal
3.2.b Demonstrable actions are taken so that forest	NA	rights or binding agreements to the FMU, as
management does not adversely affect tribal resources. When		confirmed through interviews with staff and
applicable, evidence of, and measures for, protecting tribal		review of tenure documents under C2.1.
resources are incorporated in the management plan.		
		Routine communication with Chiefs in regards to
		management activities and public posting of
		AWP's on the forest web site.
		FME staff reported that activities in 2016-17 did
		not affect any tribal issues.
3.3. Sites of special cultural, ecological, economic or religious	С	
significance to indigenous peoples shall be clearly identified in		
cooperation with such peoples, and recognized and protected		
by forest managers.		
3.3.a. The forest owner or manager invites consultation with	С	As part of the management planning process,
tribal representatives in identifying sites of current or		tribal representatives are invited to comment on
traditional cultural, archeological, ecological, economic or		the FME's planned activities. No comments have
religious significance.		been received during the past three years, per
3.3.b In consultation with tribal representatives, the forest	С	interviews with FME staff and review of the
owner or manager develops measures to protect or enhance		AWPs. SCS' efforts to reach out to stakeholders
areas of special significance (see also Criterion 9.1).		prior to the audit, including emails and phone
		calls, yielded no comments from tribal
		representatives. However, initial management
		planning conducted during the first few year of
		FSC and SFI certification yielded some comments
		from tribal representatives that have been
		incorporated into management plans. Also, all
		state forest proposals are reviewed by the
		Maryland Historical Trust during the planning
		phase. FME staff maintains contact with the
		Maryland Commission on Indian Affairs since

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		tribal leadership changes periodically and, at times, there are conflicts between tribes over
		political issues according to FME staff. According
		to interviews with FME staff in Chesapeake/
		Pocomoke, there are recent efforts at re-
		establishing contact with a recognized tribe since
		there has been a leadership change. Email
		records of these communications were
		demonstrated onsite.
3.4. Indigenous peoples shall be compensated for the	NE	
application of their traditional knowledge 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.		
Principle #4: Forest management operations shall maintain or en	nhance th	ne long-term social and economic well-being of
forest workers and local communities.	T	
4.1. The communities within, or adjacent to, the forest	NE	
management area should be given opportunities for		
employment, training, and other services.		
4.2. Forest management should meet or exceed all applicable	С	
laws and/or regulations covering health and safety of		
employees and their families.		
4.2.a The forest owner or manager meets or exceeds all	С	FME reported no accidents or safety incidents
applicable laws and/or regulations covering health and safety of		since the last audit, and that there have been no
employees and their families (also see Criterion 1.1).		changes to health & safety regulations or
		contract templates. OSHA postings were
		observed in all state forest offices. Per
		interviews with FME staff, all are aware of health
		and safety laws and receive regular training on
		the subject. Training records were provided for
		FME staff and staff of contractors (e.g., Parker
		Forestry Staff Training - March 24, 2015 thru
		April 21, 2017).
		And the control of th
		Auditors examined personnel files maintained at
		Chesapeake State Forest, which contain training
		records such as trail maintenance, fire
		certification, FEMA, state forestry licenses, CFEs
		for SAF, etc. Auditors confirmed pesticide
		applicators' licenses for the only two qualified

		staff at the Chesapeake-Pocomoke State Forest
		(Alex Clark, license 27515-75484; Michael
		Schofield, 27515-39330).
4.2.b The forest owner or manager and their employees and contractors demonstrate a safe work environment. Contracts or other written agreements include safety requirements.	С	Items 6, 10, and 11 of Parker Forestry Services' contracts address safety requirements. State of Maryland contracts reviewed include safety requirements in items 15 (accident prevention), 16 (insurance), and 19 (law applicable). Chemical application contracts reviewed include requirements for licensing, which addresses safety and qualifications (item 9). Evidence of safe felling techniques were observed in the field on stumps and use of slash on skid trails. Chemical application maps demonstrate that hazard zones and protected
		areas are avoided, consistent with how they are identified in pre-application maps.
4.2.c The forest owner or manager hires well-qualified service providers to safely implement the management plan.	C	Through use of a competitive bidding system and use of strict contracts that include logger licensing and safety requirements, FME ensures that it uses qualified service providers. Evidence: contracts for all timber sales arranged by Parker Forestry Services visited (item 6, Master Logger requirement); and state contracts (item 5, Conditions). Parker Forestry demonstrated a copy of the 2016 Master Logger list, which includes all loggers used on timber harvests in the Eastern Region. Chemical application contracts reviewed include requirements for licensing, which addresses safety and qualifications (item 9).
4.3 The rights of workers to organize and voluntarily negotiate	NE	, , ,
with their employers shall be guaranteed as outlined in		
Conventions 87 and 98 of the International Labor Organization		
(ILO).		
4.4. Management planning and operations shall incorporate	С	
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 likely social impacts of management activities, and incorporates this understanding into management planning and operations. Social impacts include effects on:	С	The Annual Work Plan and ID Team processes are robust examples of planning efforts that allow for consideration of social impacts as described in this indicator. FME most recently updated its
	<u> </u>	and maleuter time most recently aparted its

 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. 		social impacts summary in response a Minor CAR in 2014. According to interviews with FME staff, Western State Forests have engaged in cooperative project with Frostburg State University to carry out a Recreation/Tourism Economic Impact Study, with survey work slated to begin in April 2017.
A.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	SRSF — Comments regarding the FY-18 Annual Work Plan were received via e-mail, phone calls and letters. Several stakeholders have aired concerns over an FY-18 silvicultural proposal in Compartment 38 that involves a regeneration harvest on a 55-acre management unit. The unit abuts the properties of two stakeholders. Both stakeholders/ landowners are apprehensive of the harvest and its potential impact on their water supply, property values, and view shed. A response to the stakeholders is being formulated and the invitation for a site-visit has been extended to the interested parties to review the harvest proposal and address pertinent issues. FME reported that few comments have been received from stakeholders since the last audit on other State Forests. Most comments are received during the Annual Work Plan (AWP) review process from the Citizens Advisory Committees. SCS reviewed complaints log at Chesapeake Forest, which as complaints dating back to 2011. The most recent complaints date to 2015, all of which have been resolved.
4.4.c People who are subject to direct adverse effects of management operations are apprised of relevant activities in advance of the action so that they may express concern.	С	Refer to 4.4.b.
4.4.d For <i>public forests,</i> consultation shall include the following components:	С	Refer to 4.4.b.

1.	Clearly defined and accessible methods for public participation are provided in both long and short-term		See response to Minor CAR 2014.6 in the 2015 annual audit report. There has been no change
	planning processes, including harvest plans and operational plans;		since the last audit.
2.	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;		
3.	An accessible and affordable appeals process to planning		
	decisions is available.		
Pla	nning decisions incorporate the results of public		
cor	nsultation. All draft and final planning documents, and their		
sup	pporting data, are made readily available to the public.		
4.5	. Appropriate mechanisms shall be employed for resolving	NE	
gri	evances and for providing fair compensation in the case of		
los	s or damage affecting the legal or customary rights,		
pro	pperty, resources, or livelihoods of local peoples. Measures		
	all be taken to avoid such loss or damage.		
	nciple #5: Forest management operations shall encourage the		
	vices to ensure economic viability and a wide range of enviro		and social benefits.
	. Forest management should strive toward economic	NE	
	bility, while taking into account the full environmental,		
	cial, and operational costs of production, and ensuring the		
	estments necessary to maintain the ecological productivity		
	the forest.		
	. Forest management and marketing operations should	NE	
	courage the optimal use and local processing of the forest's		
	ersity of products.		
	. Forest management should minimize waste associated	NE	
	th harvesting and on-site processing operations and avoid		
	mage to other forest resources.		
	. Forest management should strive to strengthen and	NE	
	ersify the local economy, avoiding dependence on a single		
	est product.		
	. Forest management operations shall recognize, maintain,	NE	
	d, where appropriate, enhance the value of forest services		
	d resources such as watersheds and fisheries.		
	. The rate of harvest of forest products shall not exceed	С	
	els which can be permanently sustained.	_	
	.a In FMUs where products are being harvested, the	С	FME calculates the AAH for each State Forest in
lan	downer or manager calculates the sustained yield harvest		the scope.

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level for each sustained yield planning unit, and provides clear rationale for determining the size and layout of the planning unit. The sustained yield harvest level calculation is documented in the Management Plan.

The sustained yield harvest level calculation for each planning unit is based on:

- documented growth rates for particular sites, and/or acreage of forest types, age-classes and species distributions;
- mortality and decay and other factors that 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 reentries.

Of each State Forest, only one has reported changes in its calculated AAH: SRSF has been conducting an extensive forest inventory project for past 5 years. Initial inventory work has been completed on the harvestable areas of SRSF and the analysis of this data will be the basis for any changes that may be necessary in adjusting the annual allowable harvest rate.

See SFMP Chapter 5, Appendix H and CFI
Summary for each State Forest. FME uses
Remsoft's Woodstock program to analyze forest
inventory data to project sustainable harvest
levels based on allowed silvicultural systems.
Harvest rates are based on area control rather
than volume control currently.

Appendix H includes a description of the assumptions behind the growth and yield modeling, including the elements of the indicator. Summaries of projected growth and allowable harvests based on growth rates, mortality, disease, etc. are included in Appendix H.

In 2017, FEM recently completed updated modelling for the Eastern Region using forest inventory data and site indexes modeled using REMSOFT's software. The model considers growth rates, site quality, current age/ size class, species composition, management zone, operability, management constraints such as FIDS, ESAs and DFS, silvicultural practices, and objectives.

5.6.b Average annual harvest levels, over rolling periods of no more than 10 years, do not exceed the calculated sustained yield harvest level.

GRSF — The allowable harvest within the GRSF
General Forest Area is to manage 200 acres for
end of rotation regeneration harvests. FME
managed 190 acres since the last audit.
SRSF — See Appendix 3 in the Savage River State
Forest FY 2017 Annual Work Plan. 1.0 MMBF

		planned, 941,285 actual.
		PGSF — 634 MBF planned, 542 MBF actual
		CF/PSF — Thinning acreage was slightly below
		AAH, final and uneven-aged harvest acreage
		(clear cuts, variable retention, seed tree,
		shelterwood) was well below our AAH, as
		confirmed in records (see Timber Sale Summary
		for all State Forests).
		Each State Forest maintains an annual work plan
		summary to compare actual acres harvested
		versus projected (e.g.,
		http://www.dnr.state.md.us/forests/download/a
		wp_summary.pdf). Harvest levels on an area
		control basis remain well below what is allowed
		per the Woodstock model. Each State Forest also
		prepares quarterly harvest reports, which were
		reviewed during the audit.
		POS J.
		Timber Sale
		Refer also to Summary FY2016.pdf
		Harvest records for lump-sum, stumpage, and
		gatewood sales were reviewed at Parker Forestry
		Services.
5.6.c Rates and methods of timber harvest lead to achieving	С	AWP scouting done by the Forest Manager and
desired conditions, and improve or maintain health and quality		Forester. Notes on future management
across the FMU. Overstocked stands and stands that have been		activities, such as silvicultural treatments or TSI,
depleted or rendered to be below productive potential due to		are incorporated into the forest GIS.
natural events, past management, or lack of management, are		
returned to desired stocking levels and composition at the		
earliest practicable time as justified in management objectives.		
5.6.d For NTFPs, calculation of quantitative sustained yield	NA	There is no significant harvest of NTFPs on the
harvest levels is required only in cases where products are		FMU, as confirmed in field visits and interviews
harvested in significant commercial operations or where		with FME staff.
traditional or customary use rights may be impacted by such		
harvests. In other situations, the forest owner or manager		Hunt leases are used only on the Chesapeake
utilizes available information, and new information that can be		State Forest. The meat acquired is not
reasonably gathered, to set harvesting levels that will not result		commercially sold and is not commercially
in a depletion of the non-timber growing stocks or other		significant.
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advarca offects to the forest ecosystem		
adverse effects to the forest ecosystem.	-:44	the associated values was a was a way as a sile and
Principle #6: Forest management shall conserve biological diversunique and fragile ecosystems and landscapes, and, by so doing	-	
forest.	, illallita	in the ecological functions and the integrity of the
6.1. Assessments of environmental impacts shall be completed	С	
appropriate to the scale, intensity of forest management		
and the uniqueness of the affected resources and		
adequately integrated into management systems.		
Assessments shall include landscape level considerations as		
well as the impacts of on-site processing facilities.		
Environmental impacts shall be assessed prior to		
commencement of site-disturbing operations.		
6.1.a Using the results of <i>credible scientific analysis, best</i>	С	These subject areas are addressed in the SFMPs
available information (including relevant databases), and local		and AWPs for each state forest or region.
knowledge and experience, an assessment of conditions on the		Specifically, each SFMP discusses current stand
FMU is completed and includes:		conditions and disturbance regimes that have led
1) Forest community types and development, size class and/or		to current conditions. RTE species and
successional stages, and associated <i>natural disturbance</i>		communities are also addressed; however, FME also uses recovery plans. Special habitats
regimes;		discussed in SFMPs include riparian corridors.
2) Rare, Threatened and Endangered (RTE) species and rare		Water and soil resources are discussed in detail
ecological communities (including plant communities);		in SFMPs. An overview of land use history that
3) Other habitats and species of management concern;		has shaped the landscapes of the Eastern and
4) Water resources and associated riparian habitats and		Western Regions is included in each SFMP.
hydrologic functions;		
5) Soil resources ; and		
6) Historic conditions on the FMU related to forest community		
types and development, size class and/or successional stages,		
and a broad comparison of historic and current conditions.		
6.1.b Prior to commencing site-disturbing activities, the forest	С	The Annual Work Plans (AWPs) and the
owner or manager assesses and documents the potential short		associated Citizen Advisory Committee (CAC)
and long-term impacts of planned management activities on		reviews serve as a document assessment of
elements 1-5 listed in Criterion 6.1.a.		resources identified in 6.1.a and how these could
		be affected. In addition, the AWPs are subject to public review during which any citizen can make
The assessment must incorporate the best available		comments on how planned activities may affect
<i>information</i> , drawing from scientific literature and experts. The		resources of 6.1.a.
impact assessment will at minimum include identifying		
resources that may be impacted by management (e.g., streams,		FME's assessments draw from experts on the
habitats of management concern, soil nutrients). Additional		CACs, scientific literature, and assessment
detail (i.e., detailed description or quantification of impacts) will		methods carried out by qualified/trained FME staff.
vary depending on the uniqueness of the resource, potential		Stair.
risks, and steps that will be taken to avoid and minimize risks.		In the Eastern Region, Parker Forestry Services
		uses the AWPs to complete pre-harvest

		assessments to ensure that impacts to sensitive resources identified in the AWPs are prevented or mitigated.
6.1.c Using the findings of the impact assessment (Indicator 6.1.b), management approaches and field prescriptions are developed and implemented that: 1) avoid or minimize negative short-term and long-term impacts; and, 2) maintain and/or enhance the long-term ecological viability of the forest.	С	The AWPs include descriptions of prescriptions and measures to avoid or minimize negative impacts. Certain prescriptions, such as road and trail maintenance, are intended to ensure that damaged BMPs are repaired so that impacts to soil and water resources are mitigated. Harvest prescriptions are based on the reproductive ecology of the tree species on site and natural disturbance regimes.
6.1.d On public lands, assessments developed in Indicator 6.1.a and management approaches developed in Indicator 6.1.c are made available to the public in draft form for review and comment prior to finalization. Final assessments are also made available.	С	SFMPs and AWPs are subject to public review in draft form prior to finalization as described in 4.4.d. Pre-harvest inspection forms from Parker Forestry Services may be provided upon request with sensitive and confidential information removed.
6.2 Safeguards shall exist which protect rare, 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.	С	
6.2.a If there is a likely presence of RTE species as identified in Indicator 6.1.a then either a field survey to verify the species' presence or absence is conducted prior to site-disturbing management activities, or management occurs with the assumption that potential RTE species are present. Surveys are conducted by biologists with the appropriate expertise in the species of interest and with appropriate qualifications to conduct the surveys. If a species is determined to be present, its location should be reported to the manager of the appropriate database.	С	 The following was reported by DNR Natural Heritage Program: GRSF — 9 days surveying for rare plants; Searched for State listed plants and high quality or rare natural communities (per our SWAP plan), 26 days surveying for rare animals; Searched for wood turtles, rattlesnakes, Appalachian cottontails, and eastern spotted skunks. PGSF — 2 days surveying for rare plants; Searched for high quality or rare natural communities as identified in our State Wildlife Action Plan (SWAP), and purple-fringed and purple-fringeless orchids, 13 days surveying for rare animals; Searched for rattlesnakes, green salamanders, and goshawks. CF/PSF — No new areas have been established. SRSF — 31 days surveying for rare animals;

6.2.b When RTE species are present or assumed to be present, modifications in management are made in order to maintain, restore or enhance the extent, quality and viability of the species and their habitats. *Conservation zones* and/or *protected areas* are established for RTE species, including those S3 species that are considered rare, where they are necessary to maintain or improve the short and long-term viability of the species. Conservation measures are based on relevant science, guidelines and/or consultation with relevant, independent experts as necessary to achieve the conservation goal of the Indicator.

- Searched for Wehrle's salamander,
 Appalachian cottontails, eastern spotted
 skunk, West Virginia Whites (butterfly), and
 goshawks.
- CF/PSF CF: 14 days surveying for rare plants; Searched for State listed species and high quality or rare natural communities (per our SWAP plan).
- PSF: 5 days surveying for rare plants;
 Searched for State listed species and high quality or rare natural communities (per our SWAP plan), 4 days surveying for rare animals; Searched for frosted elfins.
- FME reported the following activities hear RTE species habitat zones:
- GRSF NONE
- SRSF See copies of Savage River State
 Forest Annual Work Plan and all
 management recommendations; all
 Ecologically Sensitive Areas as well as High
 Conservation Value Forest acres are
 highlighted within each proposal map.
- PGSF See PGSF FY-17 AWP for IX. Wildlife Mngt. Proposals for 2 projects done specifically for RT&E conservation.
 Compartment 25, Stand 14 – ESA Mngt./ thinning to retain habitat. Compartment 40, Stand 1 – (HCVF Thinning to Retain Habitat.)
- CF/PSF Commercial harvesting and prescribed burning. Activities are guided by both a restoration plan and policies.

Refer to individual Annual Work Plans (AWPs) and the management recommendations for each state forest; all conservation zones and/or protected areas are shown on each project map.

Forest harvests have occurred in areas that are potential habitats for RTE species. All harvests must go through the annual work plan process. Heritage assists the FME during planning and

		implementation to answer that the asset that
		implementation to ensure that the goals that
		they have for target species are met. Each year
		FME includes a location reporting form and
		information fact sheet along with its standard
		hunting harvest report forms to each of the local
		hunt clubs regarding Delmarva Fox Squirrel on
		the Maryland short. Any forms that FME receives
		back are sent to US Fish & Wildlife, DNR Wildlife
		& Heritage, and kept on file at FME offices.
6.2.c For medium and large public forests (e.g. state forests),	С	The requirements of this section of the standard
forest management plans and operations are designed to meet		are primarily accomplished through the ID team
species' recovery goals, as well as landscape level biodiversity		process, which includes reviews of all plans by
conservation goals.		heritage, wildlife, fisheries, and forestry staff.
Ç		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.
6.2.d Within the capacity of the forest owner or manager,	С	FME staff reported that there have been no cases
hunting, fishing, trapping, collecting and other activities are	~	of harvest or take of RTE species or significant
controlled to avoid the risk of impacts to vulnerable species and		damage to vulnerable species and communities
·		on the FMU.
communities (See Criterion 1.5).		on the FMO.
		Refer to AWPs and the management
		recommendations as all ESAs are shown per
		project maps. See also information presented in
		6.2.b on hunting of game species (e.g., deer)
		within Delmarva Fox Squirrel habitat.
6.3. Ecological functions and values shall be maintained intact,	С	The second real of squire induction
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.		
6.3.a.1 The forest owner or manager maintains, enhances,	С	FME reported the following:
and/or restores under-represented <i>successional</i> stages in the		GRSF — Early succession stages are most
FMU that would naturally occur on the types of sites found on		
		under-represented on this state forest, so
the FMU. Where old growth of different community types that		regeneration harvests do the most to
would naturally occur on the forest are under-represented in		maintain young forests.
the landscape relative to natural conditions, a portion of the		SRSF — The seedling/sapling succession
forest is managed to enhance and/or restore old growth		stage of our hardwood forests could be
characteristics.		considered underrepresented. As such,
		management work planned within the

Annual Work Plans is generally focused on regeneration of hardwood forests and enhancing this stage of forest growth. Early successional habitat including grass and shrub dominated acreage is also underrepresented across the forest landscape. Cooperative efforts with the Wildlife Division of DNR will maintain over 150 acres of recent land acquisitions in this habitat. Further acquisitions composed of this habitat type are in review and may potentially broaden the occurrence of this habitat niche on the forest. PGSF — See PGSF FY-17 AWP for VII. Watershed Protection Comp 19 Lostland Run HWA Mitigation /Red Spruce Planting small (1acre. annual) Native Red Spruce planting. Long standing Hemlock Protection Program with MDA; involving IPA approach to hemlock protection/preservation in important stands. CF/PSF - Prescribed fire has been used to maintain open and early successional areas on the FMU (i.e. Brookview ponds, Powell Rd ESA, Furnace lupine site, etc.) С **6.3.a.2** When a *rare ecological community* is present, FME demonstrates exceptional efforts to identify modifications are made in both the management plan and its rare ecological communities for protection, implementation in order to maintain, restore or enhance the management and/or restoration. During viability of the community. Based on the vulnerability of the harvests visited in 2017, ESAs and other existing community, conservation zones and/or protected protected areas were noted on maps when areas are established where warranted. adjacent or within timber sale boundaries. Critical habitats have been mapped for state listed or uncommon species, shale barrens communities, old growth and potential old growth, vernal pools and unique open habitats in state forest management plans. In most cases, these areas are not entered with equipment. Per interviews with staff, for early successional habitat that is not well-represented on the

	1	T
		landscape, FME is attempting to coordinate more
		opportunities to combine timber sale and
	_	prescribed fire layout to reduce costs.
6.3.a.3 When they are present, management maintains the	С	FME staff reported that there have been no
area, structure, composition, and processes of all <i>Type 1</i> and		harvests or other activities that have significantly
Type 2 old growth. Type 1 and 2 old growth are also protected		affected old growth stands.
and buffered as necessary with conservation zones, unless an		
alternative plan is developed that provides greater overall		
protection of old growth values.		
Type 1 Old Growth is protected from harvesting and road		
construction. Type 1 old growth is also protected from other		
timber management activities, except as needed to maintain		
the ecological values associated with the stand, including old		
growth attributes (e.g., remove exotic species, conduct		
controlled burning, and thinning from below in dry forest types		
when and where restoration is appropriate).		
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 $% \left(1\right) =\left(1\right) \left(1\right) \left($		
and unique ownership. Timber harvest is permitted in situations $% \left(1\right) =\left(1\right) \left($		
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 ownership,	С	FME staff reported the following:
particularly on larger ownerships (generally tens of thousands		GRSF — Management activities were
or more acres), management maintains, enhances, or restores		completed in the Kasecamp Bottoms,
habitat conditions suitable for well-distributed populations of		Anthony's Ridge, Town Creek and Kirk
animal species that are characteristic of forest ecosystems		Orchard SWHA including seasonal mowing,
within the landscape.		field border cutbacks, riparian shrub
		plantings, brush pile construction, and
		invasive species suppression to enhance
		early succession wildlife habitat structure.
		SRSF — All planned and completed timber
		harvests include wildlife habitat
		improvement elements by creating an
		increase in early succession habitat critical to
		a variety of species in need of conservation
		including golden-winged warblers, American
		woodcock, etc.
		PGSF — See PGSF FY17-AWP IX. Wildlife
		Mngt. Proposals:
		Comp 25-14 is management in an ESA for a
		State Endangered Species (bird).
		Comp 40-1 also management in an ESA
		involving habitat improvement for state
		Threatened & Endangered Species (reptiles).
		Routine permanent grassy opening mngt. of
		various small clearings / foodplots to benefit
		a wide variety of both game and non-game
		species.
		CF/PSF — none reported
6.3 c Management maintains, enhances and/or restores the	С	
6.3.c Management maintains, enhances and/or restores the plant and wildlife habitat of <i>Riparian Management Zones</i>		FME reported the following:GRSF — 29 acres of riparian area were
(RMZs) to provide:		·
a) habitat for aquatic species that breed in surrounding		converted from abandoned agriculture field and planted 30,000 trees and shrubs to
uplands;		establish riparian buffers and habitat along
		Town Creek.
 b) habitat for predominantly terrestrial species that breed in adjacent aquatic habitats; 		
		·
c) habitat for species that use riparian areas for feeding, cover, and travel;		cut buffers on blue line streams and wetlands
		as well as Maryland's Best Management
d) habitat for plant species associated with riparian areas;		Practices that are implemented on all
and,		silvicultural activities to ensure the

e) stream shading and inputs of wood and leaf litter into the		preservation of water quality in adjacent
adjacent aquatic ecosystem.		waterways.
		PGSF — 1) Numerous jurisdictional stream
		culverts associated with the Lost Land Run
		Road Restoration Project (as reviewed in last
		year's audit).
		2) Various jurisdictional stream culverts
		replaced "in-house": 2 On CCC Camp Road, 1
		in Kindness Demonstration Forest/Hutton
		Area, and 1 above Laurel Run Area / Jenny
		Dove access.
		3) Temp. bridge associated with harvest in
		PG-2016-S-01 North Hill-Comp 14-12.
		CF/PSF — Multiple thinnings entered our
		300' stream buffer to reduce pine stocking,
		and a final harvest was adjacent to a stream
		buffer.
Stand-scale Indicators	С	As confirmed in field site visits, all harvests in the
6.3.d Management practices maintain or enhance plant species		Eastern Region include retention of oak and
composition, distribution and frequency of occurrence similar		larger diameter legacy pine trees. Some harvests
to those that would naturally occur on the site.		include pine seed trees of species that occur
		natural on the site, especially in the case of pond,
		pitch, and short-leaf pines. Other hardwoods,
		such as maples, poplars, and gums, are mostly
		retained in no-harvest zones and SMZs, as well as
		within production areas during thinnings. Bald
		cypress was observed in SMZs, which are typical
		sites for this species.
6.3.e When planting is required, a local source of known	С	Seed mixes are determined by MD Department
provenance is used when available and when the local source is		of Wildlife and addressed in timber harvest
equivalent in terms of quality, price and productivity. The use of		contracts (Attachment E; medium red clover,
non-local sources shall be justified, such as in situations where		ladino clover, orchard grass, perennial rye grass,
other management objectives (e.g. disease resistance or		and timothy grass).
adapting to climate change) are best served by non-local		
sources. <i>Native species</i> suited to the site are normally selected		FME reported the following:
for regeneration.		The only artificial regeneration work done on
		PGSF was the small <1ac. Red Spruce restoration
		planting done in Lost Land Run; seedling stock
		from local Appalachian/Alleghany Plateau seed
		sources. Seedlings used on planted sites were
		sourced from the Maryland state tree nursery,

		which tracks the origins of genetic material.
6.3.f Management maintains, enhances, or restores habitat	С	As confirmed in field site visits, all harvests in the
components and associated stand structures, in abundance and		Eastern Region include retention of oak and
distribution that could be expected from naturally occurring		larger diameter legacy pine trees. Some harvests
processes. These components include:		include pine seed trees of species that occur
a) large live trees, live trees with decay or declining health,		natural on the site, especially in the case of pond,
snags, and well-distributed coarse down and dead woody		pitch, and short-leaf pines. Other hardwoods,
material. <i>Legacy trees</i> where present are not harvested;		such as maples and gums, are mostly retained in
and		no-harvest zones and SMZs. Snags were
b) vertical and horizontal complexity.		observed on several harvests with harvest areas
Trees selected for retention are generally representative of the		and in no-harvest zones. Woody material is
dominant species found on the site.		retained for use on skid trails to control erosion
		and compaction and distributed over harvest
		sites. All tree species selected for retention are
		of dominant species of the site.
6.3.g.1 In the Southeast, Appalachia, Ozark-Ouachita,	С	FME reported the following even-aged harvests:
Mississippi Alluvial Valley, and Pacific Coast Regions, when		GRSF - All even-aged regeneration harvests
even-aged systems are employed, and during salvage harvests,		carried out this year were completed under
live trees and other native vegetation are retained within the		principles of variable retention.
harvest unit as described in Appendix C for the applicable		SRSF — Approximately 105.2 acres of even
region.		aged harvests were completed on 130.2
10610111		management unit acres. 97.2 acres of mature
In the Lake States Northeast, Rocky Mountain and Southwest		hardwood were regenerated on four stands
Regions, when even-aged silvicultural systems are employed,		of 35, 17, 32.4 and 12.8 acres. The remaining
and during salvage harvests, live trees and other native		even aged management occurred on 8 acres
vegetation are retained within the harvest unit in a proportion		of the 1st first cut of a two-age shelterwood
and configuration that is consistent with the characteristic		system. Retention objectives were met for
natural disturbance regime unless retention at a lower level is		each harvest with more than 5% of the
necessary for the purposes of restoration or rehabilitation. See		original stand being retained. Buffers
Appendix C for additional regional requirements and guidance.		implemented along Streamside management
The state of the s		zones, utilities, and HCVF ensured that
		retention targets would be met in each
		silvicultural operation. Refer to the FY-17
		Annual Work Plan as well as the final timber
		harvest contracts for buffer/exclusion
		delineations.
		 PGSF — 1) See PGSF FY17-AWP PG-2017-S-09
		Hutton Comp 43-7 = small 6 ac. clear cut with
		·
		variable retention, harvest was under our
		required ac. for retention, but 5% retention
		was made per our standard.

	 2) See PGSF FY17-AWP PG-2017-S-10 Hutton Comp 43-7 = small (4 ac.) failing pine, salvage clear- cut, no retention required, nor any retained. CF/PSF — Two sites were started within the past year. Neither has not been completed to date, due to weather issues.
 6.3.g.2 Under very limited situations, the landowner or manager has the option to develop a qualified plan to allow minor departure from the opening size limits described in Indicator 6.3.g.1. A qualified plan: 1. Is developed by qualified experts in ecological and/or related fields (wildlife biology, hydrology, landscape ecology, forestry/silviculture). 2. Is based on the totality of the best available information including peer-reviewed science 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 value compared to the normal opening size limits, including for sensitive and rare species. 5. Is reviewed by independent experts in wildlife biology, 	NA No exemptions to even-aged management restrictions associated with indicator 6.3.g.1 and its applicable regional sub-indicators were detected during field visits or review of management planning documentation.
hydrology, and landscape ecology, to confirm the preceding findings.	
 6.3.h The forest owner or manager assesses the risk of, prioritizes, and, as warranted, develops and implements a strategy to prevent or control <i>invasive species</i>, including: 1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems; 2. implementation of management practices that minimize the risk of invasive establishment, growth, and spread; 3. eradication or control of established invasive populations when feasible: and, 4. monitoring of control measures and management practice to assess their effectiveness in preventing or controlling invasive species. 	FME reported the following: GRSF — Ailanthus was treated in stands prior to harvest treatments in stands that it was known to exist and ailanthus was treated in special wildlife habitat areas. Furthermore, mowing occurred in old field areas where invasive shrubs exist to prevent establishment of these shrubs such as bush honeysuckle, autumn olive and multi-flora rose. SRSF — treated and is monitoring several plant colonies or sites including: 9 Japanese Knotweed sites, 3 Tree of Heaven sites, 2 Mile-A-Minute sites and 1 Yellow Archangel site.

		 PGSF — See PGSF FY17-AWP VIII Ecosystem Restoration /Protection Projects; note control necessary on 3 NNIS spot treatments, (ref. herbicide application record.) CF/PSF — Mapping updates of known and new invasive locations, herbicide applications on high recreation use areas to slow the
63: In applicable cituations, the forest owner or manager	<u> </u>	spread of invasive vegetation. FME reported the following:
6.3.i In applicable situations, the forest owner or manager identifies and applies site-specific fuels management practices, based on: (1) natural fire regimes, (2) risk of wildfire, (3) potential economic losses, (4) public safety, and (5) applicable laws and regulations.	С	 GRSF — No prescribed fire in past year. One wildfire burned approximately 2 acres in the Kirk Orchard area. No natural fires occurred. SRSF — One wildfire (arson) totaling 8.5 acres in Compartment 58. PGSF — None CF/PSF — Multiple prescribed burns have been completed on various sites. The majorities were in or near ESA Zone 1 areas.
6.4. Representative samples of existing ecosystems within the	NE	inajorides were in or near 25/12one 1 areas.
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 implemented to	NE	
control erosion; minimize forest damage during harvesting,		
road construction, and all other mechanical disturbances; and		
to protect water resources.		
6.6. Management systems shall promote the development and	NE	
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.		
6.7. Chemicals, containers, liquid and solid non-organic wastes	NE	
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 documented,	NE	

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 controlled and	NA	
actively monitored to avoid adverse ecological impacts.		
6.9.a The use of <i>exotic species</i> is contingent on the availability	NA	FME reported that no exotic species have been
of credible scientific data indicating that any such species is		used for commercial or management purposes
non-invasive and its application does not pose a risk to native		since the last audit, which the auditor confirmed
biodiversity.		in field observation. None are used in the
		Eastern Region.
		Refer to OBS 2016.1 and 2016.3 for use of
		Norway spruce (Picea abies) in the Western
		Region.
6.9.b If exotic species are used, their provenance and the	NA	See 6.9.a.
location of their use are documented, and their ecological		
effects are actively monitored.		
6.9.c The forest owner or manager shall take timely action to	NA	See 6.9.a.
curtail or significantly reduce any adverse impacts resulting		
from their use of exotic species		
6.10. Forest conversion to plantations or non-forest land uses	NE	
shall not occur, except in		
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 the scale and	intensity	of the operations shall be written,
implemented, and kept up to date. The long-term objectives of	managen	nent, and the means of achieving them, shall be
clearly stated.		
7.1. The management plan and supporting documents shall	NE	
provide:		
a. Management objectives. b) description of the forest		
resources to be managed, environmental limitations, land		
use and ownership status, socio-economic conditions, and		
a profile of adjacent lands.		
b. Description of silvicultural and/or other management		
system, based on the ecology of the forest in question and		
information gathered through resource inventories. d)		
Rationale for rate of annual harvest and species selection.		

- Non-distance from a substantial of format annually and	l	T
e) Provisions for monitoring of forest growth and		
dynamics. f) Environmental safeguards based on		
environmental assessments. g) Plans for the 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.		
7.1.a The management plan identifies the ownership and legal	NE	
status of the FMU and its resources, including rights held by the		
owner and rights held by others.		
7.1.b The management plan describes the history of land use	С	Refer to OBS 2017.1 .
and past management, current forest types and associated		
development, size class and/or successional stages, and natural		
disturbance regimes that affect the FMU (see Indicator 6.1.a).		
7.1.c The management plan describes:	С	Refer to OBS 2017.1 .
a) current conditions of the timber and non-timber forest		
resources being managed; b) desired future conditions; c)		
historical ecological conditions; and d) applicable management		
objectives and activities to move the FMU toward desired		
future conditions.		
7.1.d The management plan includes a description of the	С	Refer to OBS 2017.1.
landscape within which the FMU is located and describes how		
landscape-scale habitat elements described in Criterion 6.3 will		
be addressed.		
7.1.e The management plan includes a description of the	NC	Refer to CAR 2017.2.
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.		
7.1.f If invasive species are present, the management plan	NE	
describes invasive species conditions, applicable management		

		T
objectives, and how they will be controlled (see Indicator 6.3.j).		
7.1.g The management plan describes insects and diseases,	NE	
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).		
7.1.h If chemicals are used, the plan describes what is being	NE	
used, applications, and how the management system conforms		
with Criterion 6.6.		
7.1.i If biological controls are used, the management plan	NE	
describes what is being used, applications, and how the		
management system conforms with Criterion 6.8.		
7.1.j The management plan incorporates the results of the	NE	
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).		
7.1.k The management plan describes the general purpose,	NE	
condition and maintenance needs of the transportation		
network (see Indicator 6.5.e).		
7.1. The management plan describes the silvicultural and other	NE	
management systems used and how they will sustain, over the		
long term, forest ecosystems present on the FMU.		
7.1.m The management plan describes how species selection	NE	
and harvest rate calculations were developed to meet the		
requirements of Criterion 5.6.		
7.1.n The management plan includes a description of	NE	
monitoring procedures necessary to address the requirements		
of Criterion 8.2.		
7.1.o The management plan includes maps describing the	NE	

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.		
7.1.p The management plan describes and justifies the types	NE	
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 site-disturbing	NE	
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 necessary environmental safeguards, health and safety		
measures, and include maps of adequate detail.		
7.1.r The management plan describes the stakeholder	NE	
consultation process.		
7.2 The management plan shall be periodically revised to	NE	
incorporate the results of monitoring or new scientific and		
technical information, as well as to respond to changing		
environmental, social and economic circumstances.		
7.3 Forest workers shall receive adequate training and	NE	
supervision to ensure proper implementation of the		
management plans.		
7.4 While respecting the confidentiality of information, forest	NE	
managers shall make publicly available a summary of the		
primary elements of the management plan, including those		
listed in Criterion 7.1.		
Principle #8: Monitoring shall be conducted appropriate to the condition of the forest, yields of forest products, chain of custod environmental impacts.		· · · · · · · · · · · · · · · · · · ·
8.1 The frequency and intensity of monitoring should be	С	
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.		
8.1.a Consistent with the scale and intensity of management,	С	All monitoring occurs per established in SFMPs
the forest owner or manager develops and consistently		and AWPs, and as per FME's procedures and
implements a regular, comprehensive, and replicable written		policies. Certain monitoring is required be
monitoring protocol.		legislation, such as for accounting purposes. FME
		also demonstrated BMP manuals, some of which
		include recommended monitoring practices.

		Certain systems, including software and silvicultural systems, have associated manuals
		and guidelines that include monitoring protocols.
		For example, in the Western Region the SILVAH
		system is used to monitor oak regeneration and growth.
8.2. Forest management should include the research and data	С	growth.
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 inventory system is maintained. The inventory system includes at a	С	FME reported the following: • GRSF — All areas that received a final harvest
minimum: a) species, b) volumes, c) stocking, d) regeneration,		in the last 2-5 years were inventoried in the
and e) stand and forest composition and structure; and f)		last year to monitor and evaluate
timber quality.		regeneration. Furthermore, all stands
, ,		proposed for regeneration harvests were
		inventoried to evaluate potential for
		regeneration and guide prescription for
		regeneration harvest methods.
		SRSF — Inventory has been completed within
		the harvestable areas of the state forest.
		Regeneration data was gathered for all FY-18
		proposals.
		PGSF — Forest–wide inventory completed 2 vears age. Regeneration monitoring plans call
		years ago. Regeneration monitoring plans call for 5 yr. (growing seasons) resurvey after
		harvest completion. 1st harvests since
		completed since inventoried, are coming due
		this summer.
		CF/PSF — Our CFI and forest inventory
		procedure was completed in 2016. Yield
		tables were created from the inventory data,
		and our forest model was updated.
		Regeneration surveys have been conducted
0.2 - 2 Cinnificant unagticinated assessed		on recent harvest sites.
8.2.a.2 Significant, unanticipated removal or loss or increased	С	FME reported no recent timber theft during
vulnerability of forest resources is monitored and recorded.		interviews with forest managers. No new major

Recorded information shall include date and location of	storm or disease events were reported in 2017.
occurrence, description of disturbance, extent and severity of	
loss, and may be both quantitative and qualitative.	
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.	 FME reported the following: GRSF — 411,591BF sawtimber, 914 cords pulpwood SRSF — 941,285 board feet and 1,105 cords of pulpwood PGSF — By end of FY-17 (June 30), will have 520,937 Bd. Ft. under contract CF/PSF — 42,293 tons; 646 MBF Refer to Timber Sale Summary FY2016 in 5.6.b. Harvest records for lump-sum, stumpage, and gatewood sales were reviewed at Parker Forestry Services.
 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). 	 FME reported the following: GRSF — Woodcock singing ground survey, wood turtle and herpalology surveys, wild turkey poult production, bear den reproduction surveys, bear bait surveys, nightjar survey, golden-winged warbler survey, camera trapping surveys for spotted skunk. SRSF — Various research projects have been ongoing throughout the forest focusing on a plethora of plant and animal communities including northern long-eared bats, American chestnut, eastern red-backed salamanders, millipedes, golden-winged warblers, Allegheny wood rats and Monarda didyma. Projects to control the non-native invasive species garlic mustard and Japanese spirea were conducted in the Bear Pen Wildlands. Wildlife and Heritage Division of DNR have ongoing monitoring for black bears, golden eagles, striped skunks and Appalachian cottontails. PGSF — DNR Wildlife and Heritage Program's surveys for both New England Cottontail and

		Nesting monitoring. • CF/PSF — Delmarva Fox Squirrel monitoring by the USFWS, bat monitoring by Salisbury University & plant community monitoring by our Wildlife & Heritage Unit. During the audit, FME presented published papers on monitoring results of the Frosted Elfin butterfly, as well as monitoring included as a part of updated AWPs.
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.	С	Timber Sale Inspection forms are maintained for harvest monitoring visits and finalized at the end of harvest. Parker Forestry Services demonstrated inspection forms for the sites visited in 2017. Parker Forestry Services also demonstrated chemical application maps that show application trails and that protected areas were avoided.
8.2.d.2 A monitoring program is in place to assess the condition and environmental impacts of the forest-road system.	С	A Forest Roads Management For Forest Operations on Maryland State Forests has been implemented. This policy creates a systematic inventory of the State Forest roads 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.
8.2.d.3 The landowner or manager monitors relevant socioeconomic 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).	С	 FME reported the following: GRSF — NONE SRSF — Five (5) trail counters have been installed throughout the forest to monitor visitor numbers and the data is downloaded at regular intervals. PGSF — Western State Forests have engaged in cooperative project with Frostburg State University to carry out a Recreation/Tourism Economic Impact Study, with survey work slated to begin now in April 2017. CF/PSF — Monitoring of social media sites related to recreational trail use.

8.2.d.4 Stakeholder responses to management activities are	С	At each state forest a complaints log is
monitored and recorded as necessary.		maintained. This was examined and resolution
		to each comment is documented when the issue
		has been investigated and closed.
8.2.d.5 Where sites of cultural significance exist, the	С	There are no such sites on the FMU. However,
opportunity to jointly monitor sites of cultural significance is		FME offered this opportunity to Tribes
offered to tribal representatives (see Principle 3).		participating in the CAC in the past. In addition,
offered to tribarrepresentatives (see Frinciple 3).		FME is cooperating with the MD Commission of
		Indian Affairs
		illulati Attalis
		The most significant change since the last audit is
		The most significant change since the last audit is
		that managers in the Eastern Region have
		initiated contact with a new recognized tribal
		representative and are trying to attain tribal
	_	participation on the CAC.
8.2.e The forest owner or manager monitors the costs and	С	FME reported that CF/PSF holds quarterly &
revenues of management in order to assess productivity and		biweekly meetings with the Contract Manager.
efficiency.		All state forests have weekly BMP inspections of
		harvesting operations.
		Cost and revenue is monitored as part of the
		AWP process. AMPs contain 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 forest manager to	NE	
enable monitoring and certifying organizations to trace each		
forest product from its origin, a process known as the "chain		
of custody."		
8.4 The results of monitoring shall be incorporated into the	С	
implementation and revision of the management plan.		
8.4.a The forest owner or manager monitors and documents	С	Monitoring results of ongoing projects are
the degree to which the objectives stated in the management		frequently reported on in AWPs, including on
plan are being fulfilled, as well as significant deviations from the		whether project objectives are being met.
plan.		Monitoring reports are also published on the
		FME's website. BMP monitoring and forest
		inventory updates occur on schedule every few
		years so that achievement of forest management
		objectives can be assessed.
8.4.b Where monitoring indicates that management objectives	С	Regular management planning update processes
		0 1 01 1

and guidelines, including those necessary for conformance with		under C7.2 are being used to ensure that
this Standard, are not being met or if changing conditions		monitoring information is being incorporated
indicate that a change in management strategy is necessary, the		into the plans. Since AWPs are prepared 18
management plan, operational plans, and/or other plan		months prior to the beginning of the fiscal year,
implementation measures are revised to ensure the objectives		results of monitoring are regularly used to
and guidelines will be met. If monitoring shows that the		modify and update management approaches.
management objectives and guidelines themselves are not		
sufficient to ensure conformance with this Standard, then the		The SFMPs in the Eastern Region was updated to
objectives and guidelines are modified.		incorporate the results of DFS recovery efforts,
		especially in adjusting approaches to classifying
		suitable habitat and translocation. In the
		Western Region, use of the SILVAH system has
		changed some of the approaches to monitoring
		regeneration and making decisions on stand
		treatments, as included in AWPs.
8.5 While respecting the confidentiality of information, forest	С	
managers shall make publicly available a summary of the		
results of monitoring indicators, including those listed in		
Criterion 8.2.		
8.5.a While protecting landowner confidentiality, either full	С	There is a monitoring tab included in each State
monitoring results or an up-to-date summary of the most		Forest's webpage. Also, each AWP includes a
recent monitoring information is maintained, covering the		section on updates to monitoring projects. All
Indicators listed in Criterion 8.2, and is available to the public,		elements of Criterion 8.2 are addressed. See also
free or at a nominal price, upon request.		response to Major CAR 2014.14 for a more
		complete listing of publicly available monitoring
		results.
Principle #9: Management activities in high conservation value f	orests sh	all maintain or enhance the attributes which

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).

9.1 Assessment to determine the presence of the attributes	NE	
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 process must	NE	
·	INE	
place emphasis on the identified conservation attributes, and		
options for the maintenance thereof.		
9.3 The management plan shall include and implement specific	NE	
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 assess the	С	
effectiveness of the measures employed to maintain or		
enhance the applicable conservation attributes.		
9.4.a The forest owner or manager monitors, or participates in	С	FME reported that its Wildlife & Heritage Unit
a program to annually monitor, the status of the specific HCV		continues to monitor ESAs post restoration
attributes, including the effectiveness of the measures		treatment on high priority sites. DNR Fisheries do
employed for their maintenance or enhancement. The		regular Brook trout monitoring in SF streams,
monitoring program is designed and implemented consistent		Maryland Biological Stream Survey has data
with the requirements of Principle 8.		collection points on several streams (all in HCVF
		stream buffers), MD Maryland Department of
		Agriculture Hemlock Wooly Adelgid protection
		efforts are monitored by MDA for effectiveness,
		most of these stands are within HCVF areas,
		including the 50ft. stream buffers.
		FME has only reported on activities related to the
		management of significant concentrations of RTE
		species, such as the Delmarva Fox Squirrel.
		While many HCVs rely on passive management
		approaches, Natural Heritage staff conduct
		annual reviews of these areas based on a
		sampling protocol.
		Publications on Frosted Elfin butterfly habitat
		were provided as evidence of monitoring of this
		significant concentration of RTE species
		population.
9.4.b When monitoring results indicate increasing risk to a	С	FME has not reported any increasing risks to
specific HCV attribute, the forest owner/manager re-evaluates		specific HCV attributes under their control.
•		specific nev attributes under their control.
the measures taken to maintain or enhance that attribute, and		
adjusts the management measures in an effort to reverse the		
trend.		
APPENDICES		

The Western Region of the FMU was not visited

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

6.3.g.1.a When even-aged silviculture (e.g., seed tree, regular or NE

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

APPALACHIA REGION

irregular shelterwood), or deferment cutting is employed, live		in 2017.
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	NE	The Western Region of the FMU was not visited
(e.g., individual tree selection or group selection), canopy		in 2017.
openings are less than 2.5 acres.		
Applicability note: Uneven age silvicultural techniques are used		
	ĺ	

SOUTHEAST REGION

6.3.g.1.a Primary and natural forests: clear-cutting is not	С	Within the Eastern State Forests (Southeast
allowed. Harvesting is not allowed at all in <i>primary forests</i> .		Region) even-aged silviculture including final
, ,,		stage of shelterwood (overstory removal) and
Semi-natural forests: stands with trees greater than 100 years		clearcuts are restricted to previously established
,		pine stands that are being managed as semi-
old: clear-cutting is not allowed; even-aged stands of hardwood		natural/natural stands and openings that are less
and cypress: clear-cutting is allowed; the size of openings		than 40 acres in size. A notable exception to

when they maintain or enhance the overall species richness and biologic diversity, regenerate-shade tolerant or intermediatetolerant species, and/or provide small canopy openings to

regenerate shade-intolerant and intermediate species. Unevenage 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.

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 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 stands--where appropriate and necessary-as 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.

clearcut opening sizes is in the case of restoration plans developed in cooperation with the FME Natural Heritage to re-establish Delmarva Bays, which are based on best available science.

See also section 2.1 (field tour).

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 FME 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., Nassawango Pines Restoration Project). In these cases, wetland hydrology is often restored and pines are removed with the intent of restoring natural plant communities. No such sites were visited in the 2017 audit.

Appendix 6 – Chain of Custody Indicators for FMEs

X Chain of Custody indicators were not evaluated during this annual audit.

SCS Trademark Annex for FMEs: FSC Trademarks, FSC-STD-50-001 V1-2 N/A, does not use/intend to use FSC trademarks for any purposes (finished with this section); or N/A, is fully integrated and all trademark uses are treated under the COC Annex to this report that includes a full review of FSC-STD-40-004 and FSC-STD-50-001.			
NOTE: This section is applicable for all organizations that use or <i>intend</i> to use any FSC trademarks for <i>promotional and/or on-product purposes</i> . For evaluation audits, it is acceptable to mark C if the client demonstrates an adequate awareness of the requirements through interviews and other applicable evidence. A requirement should be marked NC and a corresponding CAR should be issued for any nonconformance identified, such as use of FSC trademarks prior to granting of certification.			
Description of how the organization currently uses, or intends to use, FSC trademarks and/or labels, including but not limited to printed materials, Internet applications, on-product labeling, and other public-facing media:	FME makes promotional use of the FSC Trademarks on Plans, and some brochures. FSC Trademarks on the we approved. FME could not demonstrate its trademark a audit.	bsite are incorrect and not	
FSC-STD-50-001 V1-2, 1.9 Products intended to be labeled or prom certified product group list .	oted as FSC certified are included in the organization's	X C NC C w/Obs	
Evidence: Confirmed via review of produ	ct group list, website, annual work plans, and brochure.		
FSC-STD-50-001 V1-2, 1.4, 1.6 – 1.8, 1.13 – 1.14 The organization does <u>not</u> use the FSC trademarks in the following ways: in connection with the sale or promotion of FSC Controlled Wood (§1.4) in any way that could cause confusion , misinterpretation or loss of credibility to the FSC certification scheme (§1.6) to imply any FSC endorsement or responsibility of the organization's activities outside of the certificate scope (§1.7) to imply any FSC responsibility for the production of products, documents or promotional materials (§1.8) in product brand names, company names or website domain names (§1.13) translated to another language with no English included (§1.14)			
FSC-STD-50-001 V1-2, 7.2 The FSC trademarks are not used together with the marks of other forest certification schemes in a way which implies equivalence or in a way which is disadvantageous to the FSC trademarks in terms of size or placement.			
Sections 1.4, 1.6 – 1.8, 1.13, 1.14, and 7.2 Evidence: Confirmed via review of annual work plans, brochure, and website.			

FSC-STD-50-001 V1-2, 1.11 Any information about FSC that is in addition to FSC trademarks and labels included in any material has been given prior approval by SCS.	C NC C w/Obs X N/A, no additional FSC information
FSC-STD-50-001 V1-2, 1.15 The use of the FSC "checkmark-and-tree" logo is directly accompanied by the appropriate trademark symbols ® or ™ (in superscript font). The appropriate symbol also accompanies the first use of "FSC" and "Forest Stewardship Council" in any text.	
 NOTES: The use of trademark registration symbol is not required for FSC claims in sales and delivery documents, or for the disclaimer/ statement specified in requirement 7.5 of FSC-STD-50-001 V1-2. The registration symbol is required for any other use of initials "FSC" on documents; however, the omission of the use of trademark registration symbol in promotional texts related to FSC on invoice templates, delivery notes and similar documents is possible if the software used to produce these documents does not support trademark registration symbols. This exception only applies to the use of the trademark registration symbol for the initials "FSC" and the name "Forest Stewardship Council". In January 2014, in Hong Kong, FSC changed the trademark symbol from *back to *IM*. Companies affected by this change which have approved artwork with the *registered trademark symbol for distribution in Hong Kong may continue to produce, distribute and sell into the market product using the registered trademark symbol on the FSC trademarks until 1 September 2015, with an additional liquidation period of six months, which expires 1 March 2016. All new artwork must use the *IM* trademark symbol. Where the FSC initials are used vertically in the traditional way of writing for Asian nations, the registration status symbol may be used in superscript font in either the top right corner (alongside F), or the bottom right corner (alongside C) as preferred. In this instance, mark "C". 	C X NC C w/Obs N/A, one or more of the noted exceptions apply
FSC-STD-50-001 V1-2, 1.16 All FSC trademark uses have been submitted to SCS for approval .	C X NC C w/Obs
Sections 1.11, 1.15 and 1.16 Evidence: Confirmed via review of website, annual work plans, and Forest Stewardship Council and FSC are not followed by the 'R' symbol and website has not been SCS. No approval records were available. See CAR 2017.3.	
FSC-STD-50-001 V1-2, 1.10 All (previously approved) FSC labels only use the FSC label artwork provided on the label generator or otherwise issued or approved by SCS or FSC.	X C NC C w/Obs N/A, no approved FSC labels
FSC-STD-50-001 V1-2, Sections 10, 11 and 12 All (previously approved) FSC labels and logos conform to the standard requirements for color and font (§10.1-10.3, 11.5, 11.7, 11.9), format and size (§10.4 - 10.7, 11.2, 11.3, 11.8), trademark symbol (§10.8, 11.4), FSC trademark license code (§10.9), label text (§10.10 - 10.15) and/or mini label requirements (§10.16 - 10.18). The label or logo is not being misused in any manner described in section 12.2.	X C NC C w/Obs N/A, no approved FSC labels

Sections 1.10, 10, 11 and 12.2 Evidence: Confirmed via review of website, annual work plans, and brochure. No logos are used on the FSC website.		
Promotional use of the FSC trademarks		
N/A, does not use/intend to use FSC trademarks for promotional purposes (Skip Promotional section)		
NOTE: This section is applicable for all organizations that use or <i>intend</i> to use FSC trademarks for promotional purposes . For evaluation audits, it is acceptable to mark C if the client demonstrates an adequate awareness of the requirements through interviews and other applicable evidence. A requirement should be marked NC and a corresponding CAR should be issued for any nonconformance identified, such as use of FSC trademarks prior to granting of certification.		
FSC-STD-50-001 V1-2, 1.12, 4.4 The FSC trademarks are not used to promote product quality aspects not covered by FSC certification (§ 1.12). Any claims regarding qualities outside the control of FSC , such as other environmental attributes of the product, are separated from text about FSC (§ 4.4).	C NC C w/Obs X N/A, no additional quality claims	
 FSC-STD-50-001 V1-2, 6.1 Catalogues, brochures, and websites meet the following requirements: a) The promotional panel, or at least the FSC trademark license code, is in a prominent place. b) When the products are not all on the same page, a link or text such as "Look for FSC certified products" is included next to the panel / code. c) FSC certified products are indicated by using the logo or with "FSC certified" in the product description. 	C X NC C w/Obs N/A, do not use trademarks in these items	
FSC-STD-50-001 V1-2, 4.1 For labeled stationery and brochures printed on FSC-certified paper, the label is not in such a prominent position as to make it appear that any organization (or its products) represented in the publication is endorsed by FSC. (E.g. the FSC label is not placed on the front cover of the brochure or next to images of forest-based products which are not FSC certified.)	C NC C w/Obs N/A, no such labeled items	
FSC-STD-50-001 V1-2, 6.2 FSC certified products are not promoted using only the SCS Kingfisher and/or SCS Global Services logo.	X C NC C w/Obs	
FSC-STD-50-001 V1-2, 7.3 FSC trademarks are not used at the top of document templates such as letterheads, sales documents and emails.	X C NC C w/Obs	
FSC-STD-50-001 V1-2, 7.4 The FSC trademarks are not used on business cards to promote the organization's certification.	X C NC	

NOTE: If authorization was duly received under the previous trademark standard, the organization may use the existing supply until it is depleted. In this case, the approval must be available and must have been granted prior to July 1, 2011.	C w/Obs N/A, approval granted prior to July 1, 2011	
FSC-STD-50-001 V1-2, 4.2 If a business card is printed on FSC-certified paper , the mini label with product type is used at minimum size. The use of the mini label does not imply that the organization is affiliated with FSC.	C NC C w/Obs X N/A, no labeled business cards	
FSC-STD-50-001 V1-2, 8.1, 8.2 All promotional items (e.g., mugs, pens, T-shirts, caps, banners, vehicles, etc.) display, at minimum, the FSC logo and FSC trademark license code (§8.1). Any promotional items made wholly or partly of wood (e.g., pencils, memory sticks, etc.) meet the applicable labeling requirements specified by FSC-STD-40-004 (§8.2).	C NC C w/Obs N/A, no FSC labels on promotional items	
FSC-STD-50-001 V1-2, 8.3 For FSC trademarks used for promotion at trade fairs the organization has clearly marked which products are FSC certified and the products carry an FSC label; or if no products are displayed, a visible disclaimer stating, "Ask for our FSC certified products," or, "We can provide FSC certified products upon request," is present. NOTE: Use of text to describe the FSC certification of the organization does not require a disclaimer.	C NC C w/Obs N/A, no FSC trademarks used for promotion at trade fairs	
FSC-STD-50-001 V1-2, 9.1, 9.2 The organization takes full responsibility for the use of FSC trademarks by investment companies and others making financial claims based on their FSC certified operations(§9.1). Any such claims are accompanied by the disclaimer, "FSC is not responsible for and does not endorse any financial claims on returns on investments" (§9.2).	C NC C w/Obs N/A, no investment claims about FSC operations	
Promotional Trademarks Section Evidence: Confirmed via review of website, annual work plans, and brochure. The website does not meet the following requirements: a) The promotional panel, or at least the FSC trademark license code, is not in a prominent place. See CAR 2017.3.		
Number and variety of promotional trademarks and associated approval records reviewed : See website, annual work plans, and brochure. Business cards do not have any trademarks.		
Rationale that sample choice is sufficient to confirm system is functioning effectively and as described: Only these uses were detected or reported.		

Using the FSC labels on products	
X N/A, does not use/intend to use FSC on-product/packaging labels (Skip section 11)	
NOTE: This section is applicable for all organizations that use or <i>intend</i> to use FSC trademarks for on-product purposes . For evaluation audits, it is acceptable to mark C if the client demonstrates an adequate awareness of the requirements through interviews and other applicable evidence. A requirement should be marked NC and a corresponding CAR should be issued for any nonconformance identified, such as use of FSC trademarks prior to granting of certification.	
FSC-STD-50-001 V1-2, 2.1 For each on-product claim, the organization has selected the correct FSC label based upon the FSC claim that the product has been supplied with or is qualified for. NOTE: For FM/COC certificates, the FSC label and claim is FSC 100%.	C NC C w/Obs
Sections FSC-STD-50-001 V1-2, 2.1 Evidence:	
FSC-STD-50-001 V1-2, 2.3 The FSC label is clearly visible on the product, its packaging or both.	C NC C w/Obs
FSC-STD-50-001 V1-2, 2.6 Marks of other forestry certification schemes are not used on the same product (except for product promotion or educational purposes in an FSC labeled publication, as long as there are no claims about the paper of the publication being certified against the other certification scheme (§2.6.1)).	C NC C w/Obs
FSC-STD-50-001 V1-2, 2.7 When products are being made for sale to retailers who may wish to use the FSC trademarks to promote them, the products carry the FSC label either on the product or on packaging which will be visible to the consumer .	C NC C w/Obs N/A, products not being made for sale to retailers
FSC-STD-50-001 V1-2, 4.3 Where the FSC logo with the license code is applied as a heat brand or stencil directly to the product without all required label elements, a standard label is also used either on the packaging or attached as a sticker or hang-tag.	C NC C w/Obs N/A, no brand/stencil N/A, brand/stencil includes all elements
Sections 2.2 – 2.7, 4.3 Evidence:	
Number and variety of on-product logos and associated approval records reviewed:	

Rationale that sample choice is sufficient to confirm system is functioning effectively and as described: