

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

## *Commonwealth of Pennsylvania, DCNR Bureau of Forestry*

Pennsylvania, United States of America

### **SCS-FM/COC-00011N**

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1/Jan/2014	31/Dec/2018

DATE OF FIELD AUDIT
8-10/Sep/2014
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10/Dec/2014

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## Foreword

Cycle in annual surveillance audits			
<input checked="" type="checkbox"/> 1 <sup>st</sup> annual audit	<input type="checkbox"/> 2 <sup>nd</sup> annual audit	<input type="checkbox"/> 3 <sup>rd</sup> annual audit	<input type="checkbox"/> 4 <sup>th</sup> annual audit
Name of Forest Management Enterprise (FME) and abbreviation used in this report:			
Commonwealth of Pennsylvania, DCNR Bureau of Forestry (BOF)			

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

<b>Auditor Name:</b>	Kyle Meister	<b>Auditor role:</b>	Lead Auditor
<b>Qualifications:</b>	<p>Kyle Meister is a Certification Forester with Scientific Certification Systems. He has been with SCS since 2008 and has conducted FSC FM pre-assessments, evaluations, and surveillance audits in Brazil, Panama, Mexico, Costa Rica, Bolivia, Indonesia, India, Japan, New Zealand, Spain, and all major forest producing regions of the United States. He has conducted COC assessments in Oregon, Pennsylvania, and California. Mr. Meister has successfully completed CAR Lead Verifier, ISO 9001:2008 Lead Auditor, and SA8000 Social Systems Introduction and Basic Auditor Training Courses. He holds a B.S. in Natural Resource Ecology and Management and a B.A. in Spanish from the University of Michigan; and a Master of Forestry from the Yale School of Forestry and Environmental Studies.</p>		
<b>Auditor Name:</b>	Paul Pingrey	<b>Auditor role:</b>	Forest Management Specialist
<b>Qualifications:</b>	<p>Paul Pingrey is a forester with extensive experience in sustainable resource certification and public and private land management. Pingrey retired from the Wisconsin Department of Natural Resources in 2009 after 35 years of service. He served as the DNR Forest Certification Coordinator, Private Forestry Specialist and the Wisconsin Forest Tax Law Supervisor. From 2004 to 2009, he managed certification for 6 million acres of DNR forestry programs. In 2008-2009, Pingrey served on national panels that developed the FSC-US Family Forest Standard and revised the American Tree Farm Standard. For 20 years he worked directly with small woodland owners in six southern Wisconsin counties, including eleven years as the Madison Area Forestry Supervisor. His duties also included state park and county forest operations, property master planning, and environmental impact assessment. He has served in Society of American Foresters leadership positions and was chair of the National SAF Certification Working Group. Pingrey began as an independent auditor for SCS Global Services in 2010 and is an ISO19011 accredited lead auditor for Chain of Custody reviews and forest management reviews. Pingrey received a forest management degree from Iowa State University in 1974 and completed U.S. Forest Service Silviculturist Certification in 1988.</p>		

#### 1.2 Total Time Spent on Evaluation

A. Number of days spent on-site assessing the applicant:	3
B. Number of auditors participating in on-site evaluation:	2
C. Additional days spent on preparation, stakeholder consultation, and post-site follow-up:	2
<b>D. Total number of person days used in evaluation:</b>	<b>8</b>

## 1.3 Standards Employed

### 1.3.1. Applicable FSC-Accredited Standards

Title	Version	Date of Finalization
FSC-US Forest Management Standard	V1-0	July 2010
All standards employed are available on the websites of FSC International ( <a href="http://www.fsc.org">www.fsc.org</a> ), the FSC-US ( <a href="http://www.fscus.org">www.fscus.org</a> ) or the SCS Standards page ( <a href="http://www.scsglobalservices.com/certification-standards-and-program-documents">www.scsglobalservices.com/certification-standards-and-program-documents</a> ). Standards are also available, upon request, from SCS Global Services ( <a href="http://www.SCSglobalServices.com">www.SCSglobalServices.com</a> ).		

### 1.3.2. SCS Interim FSC Standards

Title	Version	Date of Finalization
SCS COC indicators for FMEs	V5-1	December 2012
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 <a href="http://www.scsglobalservices.com/certification-standards-and-program-documents">www.scsglobalservices.com/certification-standards-and-program-documents</a> or upon request from SCS Global Services ( <a href="http://www.SCSglobalServices.com">www.SCSglobalServices.com</a> ).		

## 2 Annual Audit Dates and Activities

### 2.1 Annual Audit Itinerary and Activities

Date: 8 – Sept	
FMU / Location / sites visited	Activities / notes
PA DNR Offices	Opening Meeting: Introductions, client update, review audit scope, audit plan, intro/update to FSC and SCS standards and protocols, review of open CARs/OBS, final site selection
Buchanan State Forest	<ol style="list-style-type: none"> <li>1. Cove Costa Vista Timber Sale: overstory removal step of shelterwood system for oak regeneration. Retention of overstory oaks; area fenced to keep out deer until securing sufficient height of regeneration.</li> <li>2. Sweet Root Natural Area/ Picnic Area: old-growth eastern hemlock protected area with adjacent picnic site. Significant mortality within old-growth stand, remaining higher social value hemlock in picnic area treated with bark injection against hemlock wooly adelgid. Discussion of public education of forest resources.</li> <li>3. Pine Ridge Natural Area: foot-bridge replacement and scheduled culvert-to-bridge upgrade. Discussion of DEP permitting system.</li> <li>4. Drum Timber Sale: A recently marked improvement thinning in a 56 year-old pole/small-sawlog stand composed of oaks, yellow poplar, black cherry, etc. The sale area is about 107 acres and is typical of more intermediate harvests that will be needed in a significant acreage of old clearcuts in the District. The forester</li> </ol>

	<p>explained her marking strategy to release crop trees and thin to a desired basal area. Most of the wood being removed will be hardwood pulp going to an FSC paper mill in Maryland. Part of the discussion at this location included BMP considerations for road work. Water diversions, broad-based dips, seeding, careful skid trail layout and other treatments were in evidence. The foresters described access to BMP guidance documents and training.</p> <ol style="list-style-type: none"> <li>5. Conrad Timber Sale: Overstory removal of hard pine (Pitch, Table Mountain, and Virginia pines) conducted in 2006; fence removed in 2014 after securing sufficient height of regenerated pine. Discussion of fencing installation and removal costs.</li> <li>6. Arnold Trail Timber Sale: Bridge replaced with culvert on ephemeral stream to prepare for entry to hardwood pine overstory removal with clumped retention of seed-trees (similar to a seed-tree preparation step, but with planned permanent retention of seed-trees). Most areas to be fenced to secure regeneration and protect from deer-browse. Pulp wood and limited lumber market for low-grade material. Hardwood retained within clumped pines and scattered.</li> <li>7. ‘Mrs. Robinson’ road buffer treatment: A completed “buffer harvest” that had been scheduled in the Harvest Allocation Model. Since this site is located in a wedge between two roads, DCNR’s aesthetic management guidelines call for higher retention levels using 2-aged management. The timber was hand-cut to avoid damage to residuals. The District does about 70 acres of similar aesthetic buffer harvests annually. Discussion at the site reviewed development of a Bat Habitat Conservation Plan for Indiana bats and northern long-eared bats. Rather than just focus on seasonal cutting restrictions to save bats in hardwood stands like this, the HCP looks at larger landscape-scale efforts to provide a shifting mosaic of early-successional forest cover favorable to bats. The plan would involve monitoring over a 30-year time period if adopted. Most likely, BOF will have a draft HCP and EIS for public review in June 2015 and a final HCP at the end of 2015, beginning of 2016.. The plan includes input from a broad spectrum of experts and stakeholders.</li> <li>8. ‘Burned’ Timber Sale: Marked regeneration sale (even-aged) with retention of groups of chestnut oak and individual hickory, pine, and service berry. Leave-tree marking. Objective to release oak regeneration, establish some pine regeneration, control blackgum competition, and create golden-winged warbler habitat.</li> <li>9. ‘Sugar Mountain’ Timber Sale: marked regeneration sale, similar to ‘Burned’, but with greater density of blackgum. Use of overstory removal and chemical-stump treatment of blackgum to release chestnut oak regeneration. Retention of overstory</li> </ol>
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	<p>pinus and oaks to regenerate areas to have blackgum densities lowered.</p>
<p><b>Date:</b> 9 – Sept</p>	
<p><b>FMU / Location / sites visited</b></p>	<p><b>Activities / notes</b></p>
<p>Michaux State Forest (Meister)</p>	<ol style="list-style-type: none"> <li>1. Dark Hollow Vista Timber Sale: overstory removal of pitch and white pines and oak with dispersed retention. Replant with pitch and white pine from Penn Nursery. Buffer for Appalachian Trail (200 ft). Intermediate stream buffer of 40 ft. PNDI hit for one reptile species; no special considerations recommended since not located near den site. Fence installed to secure regeneration of oak and pine species.</li> <li>2. Gilbert-Fegley Timber Sale: gypsy moth salvage and shelterwood. Snowmobile trail passes through sale; trail upgrades as part of timber sale (e.g., geotextile installation, rocking). Examination of logging equipment. Discussion of biological control options for invasive species and compliance to state/ federal laws.</li> <li>3. Strohms Hollow Timber Sale: First entry of two-cut shelterwood system. Interview with logger and inspection of equipment. Logger has extensive training and all equipment in working order. Inspection of swale crossing using French mattress method. Inspection of completed shelterwood area. Due to species composition (mostly Chestnut oak) and drier site conditions, less basal area removed on first entry as regeneration can be secured in smaller gaps.</li> <li>4. Beetam Hollow Special Wildlife Management Area: wildlife opening, control of invasive species, and planting of native grasses and forbs.</li> <li>5. Pine Grove Road: special plan protection (<i>Castanea pumila</i>; Allegheny Chinkapin) area and recovery experiment using three different treatments (overstory removal, thinning around shrubs with loppers, and no treatment/ control). May collect seed for wildlife plantings. Research &amp; monitoring discussion. Site management plan to be prepared after fact finding phase.</li> <li>6. Big Flat ATV/ Snowmobile Parking Lot: Site of beginning of Enduro Motorcycle Race. Examination of section of Enduro trail. Discussion of multi-use recreation permitted on forest.</li> <li>7. Interviews with recreational stakeholders.</li> </ol>
<p>Tuscarora State Forest (Pingrey)</p>	<p>Site 1: Trail to Flat Rock. The Tuscarora Trail is a long-distance hiking trail that splits off from the Appalachian Trail in Shenandoah National Park in Virginia and passes through West Virginia, Maryland, and Pennsylvania. One of the most popular sections goes to Flat Rock Vista, which overlooks the Cumberland Valley. Forest managers described comment cards and Facebook surveys they use to get input on hikers’ experiences (they were proud that the District’s Facebook page has more followers than the site hosted by the DCNR central office). It’s a hard trail, but that’s one of the draws for people who hike it. In response to user requests, the District has</p>

	<p>done a lot of work on trail signs and boundary markers so people know where they are.</p> <p>Site 2: Laurel Run Hemlock Treatments. Native to Asia, the hemlock woolly adelgid is a small, aphid-like insect that kills eastern hemlock trees over a 3 to 10 year period. The pest was first reported in the Eastern United States in 1951 and is now causing widespread mortality in hemlock stands. Forest managers described Pennsylvania’s Hemlock Action Plan that identifies high priority sites like this one in Laurel Run Natural Area for application of a systemic pesticide (Imidacloprid) to help save some of the trees. The pesticide can only be used with individual trees, is expensive and must be repeated every four to five years.</p> <p>Site 3: Horseheads Fence Timber Harvest 032010BC02 - Primarily a gypsy moth salvage-shelterwood treatment. The sale area is 65 acres of Class 1 site index timber, better than average. Group selection techniques were used to favor oak regeneration. Of the 138,000 board feet of timber harvested, about 40,000 feet was dead oak. Wildlife biologists evaluated the site for Allegheny wood rat (an endangered species) but concluded no suitable rock outcrops were present. Four portable bridges were used to protect temporary stream crossings. Forest staff was knowledgeable of RMZ setback requirements. The Assistant District Forester explained road work done in preparation for the harvest, including rock hauled in for a stable road base and bridge improvements. He said road inventories are used to plan road projects 2-3 years in advance and that adequate funding has been available.</p> <p>Site 4: Pandemonium Pioneer Cemetery cultural-historic site. The District Forester said, “The people of Pennsylvania expect us to protect and interpret their cultural heritage.” One such effort is maintenance of a 1787-1912 era cemetery at the site of an old tannery village. Lore has it that the place is haunted by the ghost of a slave girl killed by dogs after she tried to escape. Her supposed marker stone is a destination for many forest visitors. The forest district is cooperating on a television documentary about the settlers of the area.</p> <p>Stop 5: Cowpens Road stream amendment with limestone sand. Acid rain due to downwind industrial air pollution was a problem during the 1980’s. After a large fish kill, the District began a stream monitoring project that identified a 3.4 pH. A “lime plan” was developed in 1996, and the first application of limestone sand (calcium carbonate) to attempt to mitigate the problem was made in 1997. No new limestone deposits have been added to the stream since 2004. The pH levels have risen to 5.5 to 6.3 above and below the treated stretch of stream (a pH of 7 is neutral). The overall</p>
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	<p>improvement is attributed to the success of federal Clean Air Act. The District continues to monitor stream acidity in cooperation with the Pennsylvania Boat Commission.</p> <p>Stop 6: Whiskey Run Bridge replacement. District road specialist explained how two old tube culverts were replaced with a modern box culvert bridge and the bridge approach was changed to stop washouts. He said the bridge design was made by District engineers in cooperation with PennDOT. The forest district sends its entire road maintenance staff to the Penn State Dirt and Gravel BMP training program. The Penn State Center for Dirt and Gravel Road Studies Center specializes in education, outreach, research, and project oversight related to the Environmentally Sensitive Maintenance of unpaved roads and trails. A PNDI environmental review is done for all road projects.</p> <p>During the discussion, the District’s road specialist and ecologists explained a problem with invasive Japanese stiltgrass. The plant, which grows into thick mats along the edge of roads and ditches, prevents water from flowing off road surfaces. That contributes to severe gravel surface erosion. Road graders are taught to pick up their blades when they encounter stretches of Japanese stiltgrass and another pest called mile-a-minute vine, so as to not spread it further.</p> <p>Stop 7: Enduro Motorcycle Event Trail. The Enduro event (a one-day-a-year attraction that can draw 300- to 500 dirt bikers plus spectators) is a local fire department fundraiser. The Tuscarora Forest District hosted a ride in late June. The audit group walked a section of trail that included a stream crossing. Forest inspectors had traversed the entire course and identified only a few spots where they required additional repairs (which were since completed) beyond initial mitigation done by the club. The end result was satisfactory to the forest managers, including ecological staff. Three Enduro routes on the forest have been identified, allowing a 2-year rest between events. A PNDI environmental review is on record. The District is confident that following DCNR Motorized Event Guidelines will allow continuation of this community use without significant adverse impacts.</p> <p>Stop 8: Camp Gnat and others. Forest managers pointed out leased cabin sites and explained how the program is administered. There are about 4,000 cabin leases on State Forest lands. Running water and certain other improvement are prohibited. Lessee pays \$200/year for site. No new cabin leases have been issued since 1970. Although an exclusive few hold leases, forest managers said that many forest users seem to appreciate seeing the rustic cabins in the woods.</p>
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	<p>Stop 9: Half Pistol Timber Harvest 032012BC03 – 95 acre sale with group selection, two-stage shelterwood and overstory removal treatments. Harvest includes a 300’ aesthetics buffer along a road. A PNDI search suggested possible rattlesnake and wood rat hits, but the ecologist issued a waiver after finding no distinct habitat. A January-April cutting restriction was applied since the road is a popular recreational snowmobile route.</p> <p>Stop 10: Three Square Hollow Plant Sanctuary – location of 18 vernal ponds. The site has a research project to improve the habitat a federally listed endangered wetland plant. Trees along the south side of one vernal pool were girdled and killed in 2012 to allow more daylight in. Only one flowering bulrush was observed prior to the treatment. About 20 were counted in a 2014 monitoring assessment. A digital data logger continues to measure hydrology of the site.</p> <p>Stop 11: Sore Shins Timber Harvest 032014BC03 – 213-acre overstory removal harvest (with island reserves) intended to provide early successional habitat for the golden winged warbler. The harvest was laid out with the advice of the Bureau’s wildlife ecologist. Scarification and planting will be done to improve a pitch pine component per the forest district’s master plan. Pitch pine seed collected from the Tuscarora State Forest is used by the state nursery that will supply the planting stock. Although the harvest had not commenced, the logger (not present) had moved in a timber processor, skidders and other equipment. Auditor asked the DCNR foresters to explain what sort of inspections they would do on the site. They talked about checking for hydraulic oil leaks, locating spill kits on equipment, use of PPE, posting of an Environmental Site Plan, etc. The foresters explained how six adjoining cabin lessees had been notified and how one of the tree retention islands had been expanded to accommodate the request of a neighbor.</p> <p>Stop 12: Three Square Vista. A ridge-top opening was developed a few years ago after a suggestion made by a member of the road maintenance crew. They say the vista is a great place to observe birds migrating up the Atlantic flyway. The ridge is a popular picnic destination for Amish families living in the valley. Horse hitching posts were installed so they can safely park buggies. A PNDI checklist that considers 22 environmental factors was completed prior to project development. While at the site, a District forester pointed out an introduced weevil feeding on a mile-a-minute invasive vine. He explained how DCNR works with USDA APHIS on biological control agents, including ongoing monitoring being done by the US Forest Service and Penn State.</p>
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<b>Date:</b> 10 – Sept	
<b>FMU / Location / sites visited</b>	<b>Activities / notes</b>
Forbes State Forest	<ol style="list-style-type: none"> <li>1. Little Run Timber Sale: Overstory removal after wind blow-down from 2012 storm. Combination of overstory/ shelterwood removal and clearcut in heavier hit areas. PNDI review discussion. Retention of mast and den trees, and cucumber magnolia.</li> <li>2. Mt Streams Woodcock Habitat Management Area: young forest/ meadow habitat managed for early successional wildlife species (woodcock, golden-winged warbler). Use mechanical and chemical control of invasives/ competing vegetation. Mutli-use recreation area (birding, hunting, snowmobile, equestrian, etc). Use of volunteers for trail maintenance. University research area.</li> <li>3. Borderline Removal Timber Sale: overstory removal of shelterwood site (recently closed). Use of prescribed fire in 2007 to establish regeneration. Fence installed in some areas. Discussion of fire safety &amp; management, monitoring, legal constraints, and costs.</li> <li>4. Clear Run Timber Sale: overstory removal with scattered and clumped retention (recently closed). Prescribed burn in 2005 and 2006.</li> <li>5. Hickory Flats 2: 2010 prescribed burn to establish regeneration.</li> <li>6. Clear Run Timber Sale: basal stump treatment area (no prescribed fire). Use of USDA Forest Service guidelines for chemical treatment. Similar cost to fire.</li> <li>7. Pissode’s Nightmare: White pine release through thinning. Focus on crown liberation and aesthetics due to recreation (hiking and winter recreation site).</li> <li>8. Spruce Flats Bog: rare plant and ecosystem that formed after European settlement. Hemlock, white pine, and other conifer species removed which caused low-lying area to fill with water. Monitored in cooperation with Western Pennsylvania Conservancy.</li> <li>9. Laurel Mountain Warming Hut: winter recreation site managed by volunteers (snowmobile, skiing, etc). Emergency response team and trail maintenance among activities completed with volunteers. Try to separate recreation users by trails, but use volunteers together on all trails for lessons in cooperation.</li> </ol>
PA DNR Offices	Closing Meeting Preparation: Auditor(s) take time to consolidate notes and confirm audit findings.
	Closing Meeting and Review of Findings: Convene with all relevant staff to summarize audit findings, potential non-conformities and next steps.

## 2.2 Evaluation of Management Systems

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

## 3. Changes in Management Practices

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Since the last audit there have been several organizational changes, especially among the FME's leadership and organizational structure. However, most of the leadership changes were the result of retirements and promotions within the organization. After a review of these changes and discussions with staff at local forest offices, it was determined that none of these changes significantly affected conformance to FSC requirements.

## 4. Results of the Evaluation

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### 4.1 Existing Corrective Action Requests and Observations

<b>Finding Number: 2013.1</b>	
<b>Select one:</b> <input type="checkbox"/> Major CAR <input checked="" type="checkbox"/> Minor CAR <input type="checkbox"/> Observation	
<b>FMU CAR/OBS issued to</b> (when more than one FMU):	
<b>Deadline</b>	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
<b>FSC Indicator:</b>	4.4.d
<p><b>Non-Conformity:</b> Timber sales available for bidding and recently sold timber sales are posted at the <a href="#">BOF website</a>; however, public reporting of scheduled harvesting operations occurs after sales are set up and after harvests have been completed. The public does not have ready access to information about forthcoming timber harvests during the planning stage. While the Bureau utilizes a range of tools to communicate with people who are likely to be directly impacted by management activities and managers are acknowledged to have an “open door policy”; interviews with DNR staff indicated an absence of public input opportunities before decisions are made on annual harvest plans.</p>	
<p><b>Corrective Action Request:</b> The Bureau of Forestry shall clearly define and implement accessible methods for public participation in short-term planning processes, including harvest plans and operational plans.</p>	
<b>FME response</b> <i>(including any evidence submitted)</i>	<p>In addressing CAR 2013.1, we prepared a document outlining public participation for state forestland management (see attached document, BOF Public Engagement 2014.docx) that includes a proposed resolution to provide greater consistency in how we communicate upcoming forest management activities to the public. We also included the timeline for this resolution:</p> <p><u>Bureau of Forestry’s Timeline</u></p> <ul style="list-style-type: none"> <li>- BOF provided comments to initial findings in September following the 2013 comprehensive audit.</li> <li>- New Forest Resource Planning Section Chief (Carrie Gilbert) November 2013.</li> <li>- Final audit report received in December 2013.</li> <li>- Central office program areas in Silviculture, Planning, and Communications met to discuss Minor CAR and potential resolutions.</li> <li>- Planning presented Minor CAR to district managers, requesting their input on district and project-level public participation options and opportunities for improvement.</li> <li>- FSC coordination shift from Chad Voorhees to Carrie Gilbert in April 2014.</li> <li>- Planning prepared a white paper on public engagement methods employed by the Bureau of forestry with input from district managers’ meeting and central office staff in July 2014.</li> <li>- Developed process for documenting and posting district-level planned forest management activities to be implemented January 2015.</li> <li>- Presented new process to August managers’ meeting for feedback.</li> <li>- Completed document and incorporated feedback to work towards implementation in 2015.</li> </ul>
<b>SCS review</b>	BOF Public Engagement 2014.docx provides an overview of BOF’s public engagement processes. While BOF’s broader approach in its response to this CAR

	is positive, it has not fully defined what documents constitute its harvest and operational plans and implemented its public participation process for this specific subject.
<b>Status of CAR:</b>	<input type="checkbox"/> Closed <input checked="" type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i>

<b>Finding Number: 2013.2</b>	
<b>Select one:</b> <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
<b>FMU CAR/OBS issued to</b> (when more than one FMU):	
<b>Deadline</b>	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
<b>FSC Indicator:</b>	6.5.a, 6.5.c
<p><b>Issue:</b> DCNR does have written guidelines for control of erosion, road construction, and protection of water resources. However, the auditors found that these guidelines were scattered in a variety of publications from a number of agencies (e.g., PA Dept. of Environmental Protection, Penn State, assorted statutes, DCNR manuals, contract clauses, etc.). When questioned about where to find Best Management Practices for soil and water conservation, employees suggested different resources, with little consistency in their responses. Auditors concluded that DCNR staff may not be as familiar as they should be with such guidelines.</p>	
<p><b>Observation 2013.2:</b> Conformance with FSC-US Forest Management Standard could be improved if the Bureau of Forestry were to refresh training and develop a guide to summarize the compendium of information resource managers must consider to control erosion and minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.</p>	
<b>FME response</b> <i>(including any evidence submitted)</i>	We summarized information and guidance regarding soil and water protection in terms of planning and operation in the attached document (ES_Final.docx). This document is posted on several of our intra-agency webpages for easy access by our field staff. In addition, we provided clarification and training on the use of this document to managers and foresters in the field.
<b>SCS review</b>	BOF sent this document as a memo to staff. Future trainings on it are scheduled. Staff interviewed at each State Forest are aware of the summary document and how to access BMP manuals via intranet.
<b>Status of CAR:</b>	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i>

<b>Finding Number: 2013.3</b>	
<b>Select one:</b> <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
<b>FMU CAR/OBS issued to</b> (when more than one FMU):	
<b>Deadline</b>	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
<b>FSC Indicator:</b>	SCS FSC Chain of Custody Indicators for Forest Management Enterprises, Version 5-0, section 3.2
<b>Issue:</b> Currently, DCNR has authorization to use FSC trademarks from its former Certification Body. Since FSC license codes and COC codes will change with the re-issued certificate, updated requests should be submitted to SCS.	
<b>Observation:</b> Seek authorization from SCS in advance of implementing FSC trademark revisions and new usage of FSC trademarks in publications and web pages. SCS offers an online trademark approval web application to assist with the process.	
<b>FME response</b> <i>(including any evidence submitted)</i>	Refer to correspondence between our Communications Section Chief and SCS Sr. Trademark & Certification Coordinator.
<b>SCS review</b>	BOF provided a copy of the email between its staff and SCS Global Services' Trademark & Certification Coordinator for access to logo other trademark approval mechanisms. Logo and trademark approval staff were interviewed and found to be knowledgeable of procedures.
<b>Status of CAR:</b>	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision <i>(refer to description above)</i>

## 4.2 New Corrective Action Requests and Observations

<b>Finding Number: 2014.1</b>	
<b>Select one:</b> <input checked="" type="checkbox"/> <b>Major CAR</b> <input type="checkbox"/> <b>Minor CAR</b> <input type="checkbox"/> <b>Observation</b>	
<b>FMU CAR/OBS issued to</b> (when more than one FMU):	
<b>Deadline</b>	<input type="checkbox"/> Pre-condition to certification <input checked="" type="checkbox"/> 3 months from Issuance of Final Report <input type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
<b>FSC Indicator:</b>	FSC-US indicator 4.4.d.
<b>Non-Conformity (or Background/ Justification in the case of Observations):</b> Actions to close Minor CAR 2013.1 were devised, but not implemented. BOF Public Engagement 2014.docx provides an overview of BOF’s public engagement processes. While BOF’s broader approach in its response to the CAR is positive, it has not implemented its public participation process for harvest plans.	
<b>Corrective Action Request (or Observation):</b> The Bureau of Forestry shall clearly define and implement accessible methods for public participation in short-term planning processes, specifically for harvest plans, per the elements of indicator 4.4.d.	
<b>FME response (including any evidence submitted)</b>	<p>Attached is an example of the documents we prepared to address public notification at a local level, as well as our harvest schedule plans. This example is for the Michaux State Forest, which you visited during the audit. The two documents (2015 planned activities and harvest schedule summary) will be posted on each district’s website in the coming weeks/days to clear it up with the final report.</p> <p>[Sample link available:  <a href="http://www.dcnr.state.pa.us/forestry/stateforests/michaux/index.htm">http://www.dcnr.state.pa.us/forestry/stateforests/michaux/index.htm</a> click on ‘Forest Management’ tab.]</p> <p>For each component of indicator 4.4.d, here is how BOF currently meets them:          Part 1 is meant to provide public participation in long and short-term planning processes. We do not have a general public notification policy that contradicts a continuously open process.</p> <p>For Part 2, 2015 is the first iteration of these harvest plans, but we do plan on updating these from the districts every 6 months in January and July. For timber sales, the minimum amount of time that a sale could be marked and go to bid in the decision making process would be 4 months, but this is rare and they more typically take about a year. By updating the process every 6 months, we are providing for timber sales and other potential projects a minimum of 60-90 days for public review and input, which is sufficient to learn of projects and comment during the planning process and consider in decisions.</p> <p>For Part 3, with these being posted and revised every 6 months that should give the public time to review and appeal a project or a decision through the chain of command. This was not necessarily clearly identified in the public notification documents, so we revised the language to make this clearer. This general approach to conflict resolution is used for agreements, leases, contracts and other mechanisms for the purpose of resolution. This is also expressed in the public</p>

	engagement document attached.
<b>SCS review</b>	In addition to showing that comments are solicited through the planned activities and harvest schedule summary available on the web for each state forest, BOF provided a template for these documents. This will allow BOF to track any changes over time and implement them more efficiently. BOF Public Engagement 2014.docx provides an overview of BOF's general public engagement processes and how the public may comment on planning. The continuously open process for public engagement on harvest plans meets the intent of providing a defined and accessible means for public participation on short-term planning processes. BOF provided email records of the letter being sent out on November 24. BOF has ensured that the elements of 4.4.d are met for harvest planning processes and this CAR is closed.
<b>Status of CAR:</b>	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i>

<b>Finding Number: 2014.2</b>	
<b>Select one:</b> <input type="checkbox"/> Major CAR <input checked="" type="checkbox"/> Minor CAR <input type="checkbox"/> Observation	
<b>FMU CAR/OBS issued to</b> (when more than one FMU):	
<b>Deadline</b>	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
<b>FSC Indicator:</b>	SCS COC indicators for FMEs, indicator 2.3
<b>Non-Conformity</b> (or Background/ Justification in the case of Observations): All information a)-g) is included on timber sale contracts. Contract templates include all information. However, on timber sale 04-2011BC04 (8100-FM-FR0113 10/10), BOF's previous certificate code is included, which is no longer valid.	
<b>Corrective Action Request</b> (or Observation): BOF shall ensure that all sales documents issued for outputs sold with FSC claims include the information a)-g) of SCS COC indicator 2.3.	
<b>FME response</b> (including any evidence submitted)	<p><b>November 2014:</b> Attached are the letters we will be sending to all our 2014 active timber buyers to notify them of the certification code change, should they be affected by any inaccurate timber contracts, as well as a copy of our timber contract depicting the correct code. Although the letter is dated in October, it has not been sent, but should be in the next week or two. We can provide a date at that time if needed to address and close this CAR. If you need anything else, please let me know.</p> <p><b>December 2014:</b> Attached is the letter and list dated on the day it went out. In addition, we provided the copy of the timber contract that now contains the correct coding (which was corrected in April). The letter provided for 2014.2 was mailed November 24th, 2014 to the active buy list. The contract language is centralized, so there is not a risk of someone using the old template.</p>
<b>SCS review</b>	The letter dated November 21 includes the names of all timber sale buyers that received it, which was sent out on November 24. The contract template now contains the updated certificate code. BOF's actions are sufficient to close this CAR.
<b>Status of CAR:</b>	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> 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

Adjacent landowners	Recreational user groups
Environmental organizations	Forest products industry representatives

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

<input type="checkbox"/> FME has not received any stakeholder comments from interested parties as a result of stakeholder outreach activities during this annual audit.	
Stakeholder comments	SCS Response
<b>Economic concerns</b>	
None received.	
<b>Social concerns</b>	
Chose a place where would not have to trailer horses due to availability of trails for riding. Property located within Michaux state Forest. Works close with state forester. Roy Brubaker, District Manager is positive to work with. Forestry DOES NOT maintain Ridge Road, only will grade yearly. We have asked DCNR to repair pot holes and the ongoing problems of the road since it is continually used by the public and also several logging trucks. DCNR have put tons of stone on roads within the State Forest that does not have the same kind of usage as ours, which is heavily trafficked by the public driving into Michaux. I believe that some of	BOF is taking action to control recreational use due to an increase during the past several years. While Michaux State Forest has four full-time rangers and a recreation forester at BOF, as well as state park rangers on adjacent State Park Land, more staff may or may not curtail abuse of resources by recreational users as these activities tend to be dispersed both spatially and temporally. Level and intensity of recreational use is high on Michaux State Forest; there are population centers close to the Michaux, which puts a lot of use-pressure on the resources. Behavior of recreation users is also a factor.

<p>this has to do with funding and I think that PA should increase funding so that the forest roads can be better maintained. There are several residents who have homes and live on Ridge Road and speeding vehicles are an ongoing problem. There should be mandated speed limits within the forestry boundaries and enough rangers to parole and ticket offenders; the public itself can be a problem (trash, beer cans, speeding).</p> <p>Lack of funding – they need for rangers and funding for maintenance and patrols. These are all issues throughout Michaux forest. It is not the fault of DCNR- we need funding and better behaved user groups.</p> <p>Recreation – there is lots of it and most is good. ATVs are not allowed on the road; they abuse the trails and go on roads where they are not allowed.</p> <p>I think that there are people poaching deer at night and there is not patrol (shots occurred in early August and at other times of the year, not necessarily hunting season). By the time I tried to get a license plate the poachers, they were gone. There were three armed men in middle of Ridge Road. When I confronted them, they sped off into the forest in their truck before I could get their license plate- we need more staff.</p> <p>Probably game commission is responsible for hunting issues. I think that the state is not hiring enough. They should have rangers patrolling by horseback because they can get into places where vehicles cannot.</p> <p>Aware of restrictions to Appalachian Trail. Motor bikes are not allowed on road by our house, but they use it anyway. Public does not respect the trails throughout Michaux. There are designated trails for motor bikes, ATVs, horseback riding, etc, but is not clear about what trail maintenance occurs on those. There was a motor bike race here last week and the person who organized the trail contacted us to let us know that they were going to use this road. I assume that they had permission to use the road for that. But I don't think that the public respects the trails over all. You really don't have enough</p>	<p>Michaux staff are currently attempting to establish greater opportunities for collaboration on resource maintenance between BOF staff and user groups, such as volunteer trail maintenance composed of different users.</p> <p>Statewide, DCNR is revising a comprehensive plan for recreation management that may help guide recreation management for BOF staff and the public (<a href="http://www.paoutdoorrecplan.com/">http://www.paoutdoorrecplan.com/</a>). The BOF is also revising the State Forest Resource Management Plan and is incorporating more strategic recreation planning into guidance for managing this resource. Several research projects regarding strategic trail planning, large events, and visitor use are also in the works. As BOF works to expand it efforts for recreation management, stakeholders may wish to provide comments on noise and other impacts from recreationists directly to the district offices or through comment cards supplied at various recreation sites.</p> <p>Comments on signage and speed limits should be made directly to BOF as this process may involve other agencies or even township governments.</p> <p>Deer poaching should be reported to the Pennsylvania Game Commission, which has jurisdiction over wildlife management and hunting.</p>
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<p>employees to monitor hunting and recreation.</p> <p>DCNR works with a lot of the motor bike racers, but now you have a lot of people living in the forest and neighbors get annoyed with that, but I can't speak for everyone.</p>	
<p>Pennsylvania has over 2 million acres of forest and are well-managed to support the timber industry in a responsible, friendly way. The forests serve many purposes and must be looked at from different perspectives, all of which seem to be addressed by the Bureau of Forestry. Locally, the Forbes State Forest System management team has taken great care to preserve the forest while supporting sustainable harvest coupled with sensible use by groups and individuals, all while letting the pristine aura of the mountains prevail.</p> <p>Our organization supports public use of state forests for recreation and specifically cross country skiing. We work closely with DCNR and other state agencies to better serve the public interest. Thank you for the opportunity to provide input. Please feel free to contact us in the future for any additional comments or information you may need.</p> <p>In Forbes State Forest, DCNR has developed a users group called the Laurel Mountain Volunteer Group which brings representatives together from the various recreation groups using the trail systems. This includes but not limited to skiers, mountain bikers, equestrians, hikers, snowmobilers, etc. This has gone a long way to helping these groups play together nicely. This is also a great resource for volunteers to maintain the existing trail systems. Any requests for new trails are submitted to DCNR for approval prior to any work performed. The assumption here is that DCNR is considering environmental impacts.</p>	<p>SCS examined the regulatory framework that establishes BOF's structure and fiscal obligations contained therein to verify this comment. BOF does not make payments to local governments based on timber sales. Payments to local governments regarding compensation for public "forest reserves" are set by legislation (P.L.1798, No.591 or the Forest Reserves Municipal Financial Relief Law – 'payment in lieu of taxes'). The amount received by local governments is based on acreage. So the funding to the local governments is consistent and does not fluctuate with sale activity, market prices, or quality of timber in the locality. This allows BOF to support forest and ecosystem management, as well as many recreational activities as reported by the stakeholder.</p> <p>SCS was able to confirm the high level of cooperation between Forbes staff and recreational users through observation of trails and other infrastructure, and interviews with staff.</p> <p>The efforts to establish and maintain this diverse group of volunteers demonstrates BOF's commitment to accompanying all kinds of recreation that is compatible with forest management, water and soil protection, and other public mandates.</p>
<p>On page 40 &amp; 41 of the 2014 Forest Management and Stump-To-Forest Gate Chain-Of-Custody Certification Evaluation Report;  <a href="http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20028655.pdf">http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20028655.pdf</a>,  the Pennsylvania Off Highway Vehicles Association (PaOHV) found the FME response inaccurate on a number of important issues.</p>	<p>While Rainforest Alliance authored the Corrective Action Request (CAR 2012.1) in the 2013 FSC recertification report, SCS Global Services reviewed the evidence to close it. Our audit team assessed the portions of BOF's response that was relevant to the CAR, which required a refinement of the Environmental Impact Assessment to take into account recreational impacts.</p>

Most important is the **Motorized Event Guidelines** not having a standard for motorized events across the State of Pennsylvania. That uniformity was clearly included in the corrective actions required before the next audit as listed in section 4.2.3. Only the clubs involved are held accountable to the performance of the **Motorized Event Guidelines** through a performance bond which is item 3b titled Security Deposit and Fees in the **Motorized Event Guidelines**. All of the District Forests involved in Motorized Events do not use the terms of the **Motorized Event Guidelines** but treat this document only as a set of guidelines not as a set of standards. More significantly, the users recognize and the DCNR readily acknowledges that there is no consistency in the Districts' implementation of the guidelines.

Further, there is a time line in the 2014 evaluation report which lists the Enduro Clubs giving input prior to implementation of the **Motorized Event Guidelines**. The truth of the issue is that the Clubs, through PaOHV and the help of Pennsylvania State Representatives Moul and Regan, forced the DCNR to the table for negotiations after the January 1<sup>st</sup> 2014 certification. PaOHV with the help of Rep. Mike Regan's office provided the DCNR a revised **Motorized Event Guidelines** in June and were promised a July 2014 meeting for DCNR's further input. As of the third week of August no meeting has been held or even scheduled. The PaOHV views this process as an unnecessary, ongoing struggle since the January 2013 DCNR meeting that created the **Motorized Event Guidelines**.

So, in light of the timing of your 2014 audit, I must ask for PaOHV's total involvement in the certification process when motorized issues are addressed. This is most important when Michaux State Forest is reviewed due to the timing. Sunday the 7<sup>th</sup> of September is the Michaux Enduro and I would like to personally answer any questions the auditors may have concerning the event. Also, you will be auditing Tuscarora State Forest where the Foggy Mountain Enduro was held in June and I could answer questions in that State Forest also. As you can see the motorcycle side of motorized recreation has a lot issues in Pennsylvania with the DCNR and we would like a factual Certification Report

In the above mentioned 2013 report, SCS considered the development of the guidelines additional to the Environmental Impacts Assessment requirement per FSC indicator 6.1.a. BOF also made it clear to the SCS team that the guidelines were still being worked on during the 2013 audit. As the guidelines were being developed in response to social impact that BOF detected, the SCS team determined that they were not germane to the required environmental review process to close the corrective action.

Per email records and notes provided by DCNR, the meetings on January 18<sup>th</sup> and 30<sup>th</sup> were internal to develop a framework for drafting the guidelines. These drafts were later communicated with local groups by district personnel, as confirmed through SCS' review of meeting records provided by BOF. That is, these meetings were between DCNR staff as stated in the report for January 18<sup>th</sup>, 2013. While it could have been made clearer in the report that the meeting on January 30<sup>th</sup>, 2013 was internal, the guidelines developed after these internal meetings were the result of exchanges between DCNR staff prior to being shared with legislative and OHV group representatives, as confirmed through BOF's records for meetings.

SCS viewed DCNR's news release webpage, <http://dcnr.state.pa.us/newsandinformation/newsreleases/index.aspx>, and found one release for January 22, 2013 ([http://www.dcnr.state.pa.us/cs/groups/public/documents/news/DCNR\\_017212.pdf](http://www.dcnr.state.pa.us/cs/groups/public/documents/news/DCNR_017212.pdf)). Due to variability in stakeholder viewpoints and interactions between them and DCNR staff, it is entirely plausible that Rainforest Alliance found in the 2012 audit that other recreation users—even representatives of motorized recreation—had overall positive interactions with DCNR staff on event planning and post-event remediation.

BOF presented evidence of communications with this stakeholder group on the development of these guidelines. It is clear that there has been

<p>submitted by SCS Global Services in 2015.</p> <p>We appreciate the opportunity to provide this sort of feedback and will strive to provide comments of this nature in a more timely fashion in the future. Thank you for considering our concerns. It is my hope that you will contact me at your earliest convenience to inform and allow me to participate in the upcoming audit segments, September 8<sup>th</sup> – 12<sup>th</sup>, that relate to motorized events within the Michaux and Tuscarora Forests</p> <p>(Next email):</p> <p>I am sending you two different documents that indicate the Pa DCNR’s efforts to mislead Rainforest Alliance by indicating efforts to work with Stakeholders.</p> <p>Meeting:</p> <p>We would like for the Enduro race guidelines to be implemented consistently across all State Forests. The guidelines lack clear definitions for several terms. There have been problems scheduling meeting with BOF and unnecessary friction, and a lost opportunity for dialogue. Photos or schematics of trail best management practices would be helpful.</p> <p>(Email post-audit):</p> <p>I would like to add detail to your meeting summary below [<i>NOTE from SCS: a copy of the above text was provided to stakeholder to clarify any points</i>]. The purpose of our Tuesday meeting on September 9<sup>th</sup> was 2 fold. The Pennsylvania Off Highway Vehicles Association wanted to know firsthand any issues that came up during the 2014 audit that would impact motorized activity in the 4 Districts being audited. You pointed out the type of grass seed being used and the “Trail Braiding” as issues for the future. We feel more dialog on these issues is need for input from both the user group and the BOF, both are very valid issues.</p> <p>Then it was PaOHV’s intent to present evidence of fraudulent input on page 40 &amp; 41 of the 2014 Forest Management and Stump-To-Forest Gate Chain-Of-Custody Certification Evaluation Report by the</p>	<p>some miscommunication and scheduling conflicts between both sides on this issue. For example, upon the stakeholder group involving state legislators, it is common for the state legislators to act as intermediaries and keep stakeholders in the loop on planning meetings. This did not happen in some instances; however, the meetings were being organized by the legislators who were responsible for ensuring necessary parties were invited, but BOF also maintained an open line of communication with the stakeholders on meetings per email records. Due to the many parties involved, scheduling a meeting in August can be difficult due to the beginning of the school year, vacations, and other events. BOF attempted to set up a meeting with this stakeholder group, but the meeting was delayed due to scheduling issues of many of the parties involved, including members of this stakeholder group.</p> <p>In terms of consistency of the guidelines, BOF has committed to working with this group. BOF met with this stakeholder group after the 2014 FSC audit, as indicated in its message sent after the audit [<i>NOTE: see descriptors of communications in left column</i>]. Some elements of the guidelines were intentionally written to provide some flexibility at the local level. For example, the guidelines state that each State Forest will define and approve up to three Enduro courses (3/2013 version of <i>Guidelines for Motorized Activities on State Forest Land</i>, Goals and Objectives section). Since each State Forest has unique features- such as size, soils, water courses, and other sensitive resources- this does not mean that each State Forest will have a minimum of three Enduro courses or that each State Forest will have an Enduro course. The term, “up to three,” is what indicates this flexibility. As these guidelines have not been finalized, drafts have been made available publicly for comment, and DCNR staff have continued to meet with this stakeholder group, there is still opportunity for collaboration on developing the guidelines, as well as addressing the stakeholders’ concerns considering any legal, social, economic, and/or environmental</p>
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<p>Pennsylvania DCNR. Those issues being that not all Districts were working on 3 alternate courses and no such meeting was held on January 30<sup>th</sup> 2013 where the Motorized Event Guidelines were shared with the involved clubs. The only meetings for user group input were held in 2014 under direct pressure from Representatives Moul and Regan. Every meeting held in 2014 was intentionally delay by the DCNR representative and only under additional pressure would he reluctantly come to a meeting held at the State Capitol building in Harrisburg.</p> <p>Finally PaOHV was troubled by the DCNR’s January 22<sup>nd</sup> 2013 news release. In this document Rainforest Alliance hails the management of Pennsylvania State Forests for their fraud. It is PaOHV’s position that this type of activity weakens the credibility of the Forest Stewardship Council’s standards. If the DCNR would go to such length to falsify documentation for such a minor infraction what will they do as a result of any major deficiency?</p> <p>(Comment from affiliated stakeholder):</p> <p>We would like for the Enduro race guidelines to be rewritten with first ever stakeholder input and implemented consistently across all State Forests as was listed in the corrective actions of the 2014 Forest Management and Stump To Forest Gate Chain of Custody Certification Evaluation Report. The guidelines lack clear definitions for several terms which need clarification. There have been problems scheduling meetings with, even receiving return calls from, BOF, causing lost opportunities for dialogue and unnecessary friction. Photos or schematics of trail best management practices would be helpful.</p>	<p>constraints. BOF also intends to make these guidelines available to other groups for comments (DCNR Recreation Advisory Committee). On a positive note, the stakeholder group shows interest in addressing and improving BMPs for the Enduro courses, as evinced its positive reactions to questions on Enduro course BMPs from the SCS auditor.</p> <p>Other recreational stakeholders, including representatives of motorized and non-motorized users, have reported an overall positive relationship with BOF, as confirmed through SCS’ interviews in 2014 with other stakeholders and some email records provided by BOF. BOF has continued to provide opportunities for this stakeholder group to provide comments on the guidelines and has shown good faith in continuing this process. SCS views the challenges in establishing and implementing the guidelines in a consistent manner as uncharacteristic of BOF’s work with recreational stakeholders, and thus not a systematic issue.</p> <p>Statewide, BOF has recognized the importance of recreational opportunities for stakeholders, as well as potential positive and negative impacts. BOF is currently revising the State Forest Resource Management Plan which will include strategic recreation planning guidance to better manage and control the impacts of recreation while still allowing for these activities to occur. Through elaboration of this plan, BOF intends to develop and implement a strategic approach to recreation management that continues to allow for many types of recreation groups to use state forestlands for their activities with considerations on minimizing environmental and social impacts. No nonconformance is warranted.</p>
<p>Thank you for inviting our agency to comment on the upcoming assessment of Pennsylvania’s Buchanan, Michaux, Tuscarora, and Forbes State Forests. The PA Historical and Museum Commission (PHMC) is designated as the State Historic Preservation Office, and our bureau in particular is responsible for identifying, evaluating, and managing information on historic and archaeological resources</p>	<p>In conjunction with a review of management BOF planning documents and databases, this comment confirms BOF’s efforts at protecting sites of cultural and historical interest on state forestland.</p>

<p>in the commonwealth. In my position I have been working closely with the South Mountain Partnership, a DCNR Conservation Landscape Initiative centered around Michaux State Forest. Michaux has a long history of human occupation and use (and abuse), including Native American rhyolite “quarries” (used for making stone tools), several 18th and 19th century iron mines and furnace plantations, some of the state’s earliest acquisitions for land conservation and managed forests, and the Appalachian Trail. So we have been very happy with the State Forest staff’s willingness to coordinate and collaborate with our agency on several projects and planning efforts:</p> <ul style="list-style-type: none"> <li>• Supporting volunteers of the Pennsylvania Forest Fire Museum Association with their efforts to collect and display artifacts at a historic park office building in Caledonia State Park.</li> <li>• Consulting with our staff to explore alternatives for breaching a concrete dam associated with a historic CCC camp that was later adapted for use as a World War II POW camp.</li> <li>• Working closely with the Appalachian Trail Conservancy and the South Mountain Partnership to undertake a “cultural landscape assessment” of Michaux State Forest. This study, funded by DCNR and a grant from our agency, will identify historic sites, structures, and landscapes in the forest and will offer recommendations to the State Forest District for managing and preserving these resources. This approach promises to be a model for state forest planning and management in Pennsylvania.</li> </ul> <p>Building on this experience with Michaux, our staff looks forward to working with other state forest districts to similarly help them recognize and protect their historic and archaeological resources. Please feel free to contact me if you have any questions.</p>	
<p><b>Environmental concerns</b></p>	
<p>None received.</p>	

## 6. Certification Decision

<p>The certificate holder has demonstrated continued overall conformance to the applicable Forest Stewardship Council standards. The SCS annual audit team</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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recommends that the certificate be sustained, subject to subsequent annual audits and the FME's response to any open CARs.	
<b>Comments:</b>	

## 7. Changes in Certification Scope

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

### Name and Contact Information

<b>Organization name</b>	PA Department of Conservation and Natural Resources, Bureau of Forestry		
<b>Contact person</b>	Carrie L. Gilbert (primary) or Seth Cassell (secondary)		
<b>Address</b>	PO Box 8552	<b>Telephone</b>	717-783-0383
	Harrisburg, PA	<b>Fax</b>	717-783-5109 (717-783-0389)
	17105-8552	<b>e-mail</b>	<a href="mailto:cagilbert@pa.gov">cagilbert@pa.gov</a> (scassell@pa.gov)
		<b>Website</b>	<a href="http://www.dcnr.state.pa.us/forestry/index.aspx">http://www.dcnr.state.pa.us/forestry/index.aspx</a>

### FSC Sales Information

<input checked="" type="checkbox"/> FSC Sales contact information same as above.			
<b>FSC salesperson</b>			
<b>Address</b>	<b>Telephone</b>		
	<b>Fax</b>		
	<b>e-mail</b>		
	<b>Website</b>		

### Scope of Certificate

<b>Certificate Type</b>	<input checked="" type="checkbox"/> Single FMU	<input type="checkbox"/> Multiple FMU
	<input type="checkbox"/> Group	
<b>Number of FMUs in scope of certificate</b>	1	
<b>Geographic location of non-SLIMF FMU(s)</b>	<i>Latitude &amp; Longitude:</i>	
<b>Forest zone</b>	<input type="checkbox"/> Boreal	<input checked="" type="checkbox"/> Temperate
	<input type="checkbox"/> Subtropical	<input type="checkbox"/> Tropical
<b>Total forest area in scope of certificate which is:</b> Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac		
privately managed	0	
state managed	2,165, 7491 - <b>25,012</b> (excluded) = <u>2,140,737</u>	
Note: The Bureau is performing an analysis regarding potential areas to consider for excision and would like to address this analysis during the audit.		

community managed	0		
<b>Number of FMUs in scope that are:</b>			
less than 100 ha in area	0	100 - 1000 ha in area	0
1000 - 10 000 ha in area	0	more than 10 000 ha in area	1
<b>Division of FMUs into manageable units:</b>			
The forests within the FMU are divided into 20 forest districts state-wide.			

**Production Forests**

<b>Timber Forest Products</b>	<b>Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac</b>
Total area of production forest (i.e. forest from which timber may be harvested)	1,099,481 Classified “Multiple Resource Management Zone”. Timber harvests in other zones may be allowed if warranted under extenuating circumstances. File Reference: 20140603_SFL_Zoning.xls
Area of production forest classified as 'plantation'	None
Area of production forest regenerated primarily by replanting or by a combination of replanting and coppicing of the planted stems	2,654 Area reflects planting for recovery efforts in Gypsy Moth salvage operations where there was an absence of adequate natural regeneration. Additional areas are planted to supplement natural regeneration, to increase habitat diversity, or to promote landscape level goals for habitat enhancement, such as increasing conifer cover.
Area of production forest regenerated primarily by natural regeneration, or by a combination of natural regeneration and coppicing of the naturally regenerated stems	8,414
<b>Silvicultural system(s)</b>	<b>Area under type of management</b>
Even-aged management	File reference: ForestProductsAnnualReport 2013.pdf
Clearcut (clearcut size range )	466
Shelterwood (initial stage)	5,173
Shelterwood (overstory removal)	8,148
Other:	Improvement – 263

	<p>Two Aged – 870                  Two Aged Shelterwood – 284                  Salvage – 1,250                  Misc – 151                  O&amp;G related - 186 (sold as Uncertified – BF-16 Invoice)</p>
Uneven-aged management	
Individual tree selection	263
Group selection	
Other:	
<input checked="" type="checkbox"/> Other (e.g. nursery, recreation area, windbreak, bamboo, silvo-pastoral system, agro-forestry system, etc.)	<p>The PA DCNR BOF Nursery (Penn Nursery) which is not included in the certificate is 325 acres. Growing stock is for BOF or State Park use only.</p> <p>There is a golf course lease which is also not included Under the certificate and is 61 acres.</p>
The sustainable rate of harvest (usually Annual Allowable Harvest or AAH where available) of commercial timber (m3 of round wood)	<p>14,337 acres per year</p> <p>87,215 MBF/year                  Or 303,508 m<sup>3</sup></p> <p>This figure includes both sawtimber and cordwood projected by the Harvest Allocation Model</p> <p>Assuming 1,000 board feet = 3.48 cubic meters</p>
<b>Non-timber Forest Products (NTFPs)</b>	
Area of forest protected from commercial harvesting of timber and managed primarily for the production of NTFPs or services	<p>1,066,269 acres are afforded varying levels of protection. Strict reserves include State Forest Natural Areas - 79,077 acres.</p> <p>File Reference: 20140603_SFL_Zoning.xls</p>
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	No commercial production of NTFPs
<b>Explanation of the assumptions and reference to the data source upon which AAH and NTFP harvest</b>	

<b>rates estimates are based:</b>
File References: Harvest_Goals.pdf HarvestAllocationModel.doc ManningPJ__MSThesis2009.pdf Model Description.doc ForestProductsAnnualReport2013.pdf
<b>Species in scope of joint FM/COC certificate: (Scientific / Latin Name and Common / Trade Name)</b>
<i>Pinus strobus (White Pine), Tsuga Canadensis (Eastern Hemlock), Pinus rigida (Pitch Pine), Pinus virginiana (Virginia Pine), Pinus pungens (Table Mountain Pine), Picea abies (Norway Spruce), Acer saccharum (Sugar Maple), Acer rubrum (Red Maple), Quercus rubra (Northern Red Oak), Quercus velutina (Eastern Black Oak), Quercus coccinea (Scarlet Oak), Quercus prinus (Chestnut Oak), Betula alleghaniensis (Yellow Birch), Betula lenta (Sweet Birch), Betula papyrifera (White Birch), Fagus grandifolia (American Beech), Fraxinus Americana (White Ash), Fraxinus pennsylvanica (Green Ash), Tilia americana (Basswood), Liriodendron tulipifera (Tulip Tree), Carya ovata (Shagbark Hickory), Ulmus Americana (American Elm), Populus grandidentata (Big-tooth Aspen), Nyssa sylvatica (Black Gum), Juglans nigra (Black Walnut), Prunus serotina (Black Cherry), Magnolia acuminata (Cucumber Tree), Morus alba (Mulberry).</i>

**FSC Product Classification**

<b>Timber products</b>		
<b>Product Level 1</b>	<b>Product Level 2</b>	<b>Species</b>
W1	W1.1 (Roundwood Logs)	See Above
W1	W1.2 (Fuelwood)	See Above
<b>Non-Timber Forest Products</b>		
<b>Product Level 1</b>	<b>Product Level 2</b>	<b>Product Level 3 and Species</b>
No Commercial Products		

**Conservation Areas**

<b>Total area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives:</b>	ha or ac			
<b>High Conservation Value Forest / Areas</b>				
<b>High Conservation Values present and respective areas:</b>				
Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac				
<input checked="" type="checkbox"/>	<b>Code</b>	<b>HCV Type</b>	<b>Description &amp; Location</b>	<b>Area</b>
<input checked="" type="checkbox"/>	HCV1	Forests or areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).	Wild Plant Sanctuaries and Ecological Focus Areas	1.1= 9,467 1.2 = 34,718
<input checked="" type="checkbox"/>	HCV2	Forests or areas containing globally, regionally or nationally	Wild Areas Natural Areas > 2,000	2.1 = 136,462

		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.	Acres Wild Areas Natural Areas > 2,000 Acres William Penn SF Parcels Four Corners	2.2 = 159,277
<input checked="" type="checkbox"/>	HCV3	Forests or areas that are in or contain rare, threatened or endangered ecosystems.	Old Growth ROS Primitive Areas >500ac S1 Natural Communities	3.1 = 19,454 3.2 = 21,644 3.3 = 955
<input checked="" type="checkbox"/>	HCV4	Forests or areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).	Public Drinking Water DEP Buffers.  Critical Floodplain	4.1 = 7,432 4.2 = 6,580.02 (this reduction is because of an error in last year's report – no actual change from last year)  4.3 = 96
<input type="checkbox"/>	HCV5	Forests or areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).		
<input checked="" type="checkbox"/>	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).	PHMC Archaeological PASS Data	268
<p><b>Total Area of forest classified as 'High Conservation Value Forest / Area'</b></p>				<p><u>Total – 208,855.46</u></p> <p>*Note: This is not a sum of all above acres. These areas may duplicate or overlap boundaries. This number is an exact representation of the acres set aside. Acres are subject to change annually as these boundaries may change due to data entry methods and refinement of coarse data.</p>

**Areas Outside of the Scope of Certification (Partial Certification and Excision)**

N/A – All forestland owned or managed by the applicant is included in the scope.

<input checked="" type="checkbox"/> Applicant owns and/or manages other FMUs not under evaluation.														
<input type="checkbox"/> Applicant wishes to excise portions of the FMU(s) under evaluation from the scope of certification.														
<b>Explanation for exclusion of FMUs and/or excision:</b>	<p>The DCNR BOF is currently in possession of several properties where timber rights were reserved for a period of time by the seller. The BOF also has one Nursery and one golf course. These properties are excluded from the scope of the certificate.</p> <p>DCNR Bureau of Forestry occasionally arranges harvests for other state agencies that are not certified (e.g., Bureau of State Parks). Procedures require that contracts specify “Not FSC-certified” for such sales.</p> <p>At this time no areas have been excised. The Bureau is performing an analysis regarding potential areas to consider for excision and would like to address this analysis during the audit.</p>													
<b>Control measures to prevent mixing of certified and non-certified product (C8.3):</b>	<p>The FME does not sell certified timber mixed with non-certified timber. Certified sales are designated with the FSC claim and COC code on the first page of the contracts. For uncertified gas development clearings, “BF16 Invoices” with no COC information are used.</p>													
<b>Description of FMUs excluded from, or forested area excised from, the scope of certification:</b>														
<b>Name of FMU or Stand</b>	<b>Location (city, state, country)</b>	<b>Size (<input type="checkbox"/> ha or <input type="checkbox"/> ac)</b>												
<b>EXCLUDED</b>														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">District</th> <th style="width: 15%;">Acreage</th> <th style="width: 70%;">Reason</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">11</td> <td style="text-align: center;">16,649</td> <td style="text-align: center;">Timber reservations</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">2363</td> <td style="text-align: center;">Timber reservations</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">61</td> <td style="text-align: center;">Golf Course – non-forest use</td> </tr> </tbody> </table>	District	Acreage	Reason	11	16,649	Timber reservations	4	2363	Timber reservations	1	61	Golf Course – non-forest use	<p style="text-align: center;">Dalton, PA, US</p> <p style="text-align: center;">16,649</p> <p style="text-align: center;">Laughlintown, PA,US</p> <p style="text-align: center;">2363</p> <p style="text-align: center;">Fayetteville, PA, US</p> <p style="text-align: center;">61</p> <p style="text-align: center;">325</p>	<p style="text-align: center;">16,649</p> <p style="text-align: center;">2363</p> <p style="text-align: center;">61</p> <p style="text-align: center;">325</p>
District	Acreage	Reason												
11	16,649	Timber reservations												
4	2363	Timber reservations												
1	61	Golf Course – non-forest use												

Penn Nursery	325	Not part of a forest mgt property	Spring Mills, PA, US	
				<b>19,398</b> *This increase is due to acquisitions made by the state in 2013 that do include timber reservations in District 11 (Lackawanna State Forest)

## 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: 655	# of female workers: 99	
<b>Number of accidents in forest work since last audit</b>	<b>Serious: # 67</b> *‘Serious’ injuries were counted as those that required medical attention and tracked in DCNR’s workman’s compensation database. 66 employee injuries recorded since last audit. One additional serious injury of a logging contractor was recorded in an incident report.	<b>Fatal: # 1</b> *One fatality of a logging contractor was recorded in an incident report.

### 8.2 Annual Summary of Pesticide and Other Chemical Use

<input type="checkbox"/> FME does not use pesticides.				
Commercial name of pesticide /	Active ingredient	Quantity applied annually (kg)	Size of area treated during	Reason for use

herbicide		or lbs)	previous year	
				Chem_used_2013.xlsx 2013_I&D_chem_applications.docx
<p>Please see the above documents. BOF's database is too large and complex to report in this form. BOF also can generate chemical use reports for each district via IntraForestry Database. <b>This information is available upon request via the contact information presented in section 7 of this report and was provided to the certification body to maintain in its records.</b></p>				

## SECTION B – APPENDICES (CONFIDENTIAL)

### Appendix 1 – List of FMUs Selected For Evaluation

- 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

Name	Title	Contact Information	Consultation method
Carrie Gilbert	Forest Resource Planning Chief	717-783-0383 for all staff	Meeting/ field for all staff
Jason Albright	Assistant State Forester		
Roy Brubaker	Michaux District Manager		
Neal Mishler	Michaux Assistant District Manager		
Zach Roeder	Forest Planner		
Matt Puchalsky	Michaux Forest Technician		
Keith Ewan	Michaux Fire Forester		
Kelly Sich	Botanist		
Mike Wright	Michaux Management Forester		
Don Kepple	Michaux Management Forester		
Mike Rothrock	Michaux Forest Technician		
Michelle Blevins	Michaux Recreation Forester		
Aura Stauffer	Wildlife Biologist		
Sharon Koontz	Forest Pest Management Specialist		
Jim Smith	Buchanan District Manager		
Karli Naugle	Buchanan Assistant District Manager		

Bryan Wilford	Buchanan Assistant District Manager		
Jodie Skipper	Buchanan Management Forester		
Matt Sheetz	Buchanan Management Forester		
Steve Keiper	Buchanan Recreation Forester		
Kurt Rumley	Buchanan Management Forester		
Dave Scarmardella	Buchanan Service Forester		
Gene Odato	Tuscarora District Manager		
Steve Wacker	Tuscarora District Manager		
Andy Snyder	Tuscarora Management Forester		
Andy Baker	Tuscarora Recreation Forester		
Will Devore	Tuscarora Management Forester		
Ed Callahan	Forbes District Manager		
Cory Wentzel	Forbes Assistant District Manager		
Dave Planisek	Forbes Management Forester		
Doug Langford	Forbes Management Forester		
Ralph Campbell	Forbes Management Forester		
Rebecca Bowen	Ecological Services Chief		
Andrew Rohrbagh	Botanist		
Emily Just	Wildlife Biologist		
Amanda Parks	Biometrician		
Scott Miller	Silviculture Chief		

Bob Beleski	Silviculture Specialist		
John Smoluk	GIS Specialist		
Michael Hoffman	Forest Planner		
Ryan Szuch	Forest Planner		
Jodie Gribik	Operations Specialist		
Bill Cook	Operations Specialist		
Nate Fite	Recreation Specialist		
Chad Voorhees	Recreation Specialist		
Jason Hall	Recreation Chief		

**List of other Stakeholders Consulted**

Name	Organization	Contact Information	Consultation method	Requests Cert. Notf.
Bonnie Wolf	Adjacent landowner	<a href="mailto:bwhorses3@gmail.com">bwhorses3@gmail.com</a> ; 717-749-3121	Phone & email	Y
Bryan Van Sweden	Bureau for Historic Preservation	<a href="mailto:bvansweden@pa.gov">bvansweden@pa.gov</a>	Email	Y
Mike Blessington	PA Cross Country Skier's Association(PACCS A)	<a href="mailto:mjcabless@windstream.net">mjcabless@windstream.net</a>	Email	Y
Bruce Cox	PACCSA	<a href="mailto:bruce@tmrroofing.com">bruce@tmrroofing.com</a>	Email	Y
Steve Forrester	Forrester Logging	<a href="mailto:4ester@innernet.net">4ester@innernet.net</a> ; 717.532.9506	Field	Y
Steve Salisbury	American Motorcyclist Association	<a href="mailto:ssalisbury@ama-cycle.org">ssalisbury@ama-cycle.org</a> ; 202.742.4311	Office	Y
Denny Mann	Willow Hill Off-Road Riding School	<a href="mailto:tewellmann@embargo.com">tewellmann@embargo.com</a> ; 717.532.6439	Office; email; phone	Y
Anonymous stakeholders				

**Appendix 3 – Additional Audit Techniques Employed**

No additional audit techniques were employed. Chemical use reporting records are attached below.



2013\_I&D\_chem\_ap plications.docx



chem\_used\_2013.xls

## Appendix 4 – Pesticide Derogations

There are no active pesticide derogations for this FME.

## Appendix 5 – Detailed Observations

Evaluation Year	FSC P&C Reviewed
2013	All – (Re)certification Evaluation
2014	1.5, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.2, 4.4, 5.6, 6.2, 6.3, 6.5, 6.7, 6.8, 6.9, 8.2, 8.3 (SCS COC indicators), and 9.4.
2015	
2016	
2017	

*C= Conformance with Criterion or Indicator*  
*NC= Nonconformance with Criterion or Indicator*  
*NA = Not Applicable*  
*NE = Not Evaluated*

REQUIREMENT	C/NC	COMMENT/CAR
<b>Principle #1: Compliance with Laws and FSC Principles</b>		
<b>Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.</b>		
<b>1.1 Forest management shall respect all national and local laws and administrative requirements.</b>	NE	
<b>1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.</b>	NE	
<b>1.3. In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.</b>	NE	
<b>1.4. Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.</b>	NE	
<b>1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.</b>	C	
<b>1.5.a. The forest owner or manager supports or implements measures intended to prevent illegal</b>	C	For general unauthorized activities by forest visitors, the Bureau’s Ranger Program employs 37 wage and salaried

<p>and unauthorized activities on the <b>Forest Management Unit</b> (FMU).</p>		<p>Forest Rangers. The role of Forest Rangers is to provide visitor services, educational programs and information, and to enforce Forestry Rules and Regulations and Commonwealth laws. Rangers have full state police powers and address minor violations occurring on BOF lands. In addition, salary employees in various job classifications become State Forest Officers who have authority to enforce various state forest rules and regulations and only have jurisdiction on state forest lands. When observing violations of laws, rules, or regulations, they do not have the authority to enforce and refer information concerning a violation to a Forest Ranger or other appropriate police or legal authorities. The Bureau has 288 personnel with State Forest Officer duties.</p>
<p><b>1.5.b.</b> If illegal or unauthorized activities occur, the forest owner or manager implements actions designed to curtail such activities and correct the situation to the extent possible for meeting all land management objectives with consideration of available resources.</p>	<p>C</p>	<p>There were no illegal harvesting or settlement activities reported in the past year.</p> <p>At the field level, signage and gates were observed to deter unlawful uses of forest resources. Permits are required for firewood harvests to control collection times and types of wood collected. While the level of involvement varies on state forests, the use of volunteer trail maintenance crews has led to a certain degree of self-policing among recreational users to reduce negative impacts to soil and water resources.</p> <p>During site visits, the auditors were provided information about cooperation between District Forests and County Sheriffs on illegal marijuana plots found in the woods. The Tuscarora State Forest has worked with local law enforcement agencies using hidden cameras to identify vehicles involved in illegal dumping activities.</p> <p>One stakeholder for the Michaux Forest communicated concern over lack of staff to adequately police unauthorized motorized recreation and hunting. BOF is taking action to control recreational use due to an increase during the past several years. While Michaux has four full-time rangers, more staff may or may not curtail abuse of resources by recreational users as these activities tend to be dispersed</p>

		both spatially and temporally. Behavior of recreation users is also a factor. Michaux staff are currently attempting to establish greater opportunities for collaboration on resource maintenance between BOF staff and user groups such as volunteer trail maintenance composed of different users.
<b>1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.</b>	NE	
<b>Principle #2: Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.</b>		
<b>2.1. Clear evidence of long-term forest use rights to the land (e.g., land title, customary rights, or lease agreements) shall be demonstrated.</b>	C	
<b>2.1.a</b> The forest owner or manager provides clear evidence of <i>long-term</i> rights to use and manage the FMU for the purposes described in the management plan.	C	<p>DCNR’s long-term rights to use are defined in Pennsylvania laws, regulations, and guidelines. Relevant regulations include the Conservation and Natural Resources Act 18. sale or transfer of timber is authorized by the Administrative Code of 1929, Act of April 9, P.L. 177, 71 § 191. State Parklands over which BOF has management rights are documented for District 4 (Forbes State Forest) and are included within the scope of FSC</p> <p>Land acquisitions include parcels over which BOF may not yet have the timber rights. While these areas are outside the scope of FSC until BOF has the timber rights, they are subject to environmental review prior to timber harvests that BOF can ensure that any HCVs are protected.</p>
<b>2.1.b</b> The forest owner or manager identifies and documents legally established use and access rights associated with the FMU that are held by other parties.	C	<p>Use and access rights held by others that impact the BOF management include camp lease holders, severed subsurface mineral rights holders, and mineral lease holders. These rights are documented in leases agreements, guidelines, policies, procedures and other materials. Recreation access and use rights are documented in special activity agreements and associated policies.</p> <p>During the audit opening meeting, Bureau of Forestry personnel explained a Commonwealth Court decision on the ownership of gas and mineral rights for a contested area (the <a href="#">Clarence Moore Tract</a>) of the Loyalsock State Forest. The Bureau is legally obligated to protect proprietary/confidential development plans of subsurface rights owners, which creates some tension with the public.</p> <p>During the visit to the Forbes State Forest, managers explained that the state has acquired about 35,000 acres</p>

		<p>land, but the timber rights were reserved for the sellers (the Ruffed Grouse Society and others) for the next fifty years. The state is allowing sellers' ongoing timber harvest but they must complete PNDI environmental assessments and take appropriate precautions.</p> <p>On Michaux and Forbes State Forests, water pipes and storage tanks were observed that are under the jurisdiction of municipal water supply agencies. BOF sent letters to these municipalities about timber management activities that were occurring near these areas. Forest plans identify locations of municipal water wells, and staff notifies municipalities of planned management activities in the related watersheds (which are also identified as HCVFs).</p>
<p><b>2.1.c</b> Boundaries of land ownership and use rights are clearly identified on the ground and on maps prior to commencing management activities in the vicinity of the boundaries.</p>	<p>C</p>	<p>Auditors observed boundaries to be clearly marked on maps made available in the office, including state forest maps produced and distributed to the public. Boundaries were also observed to be well and consistently marked in the field. Markings included painted boundaries as well as posted signs. District Foresters described methods for maintaining boundary markings through routine re-marking.</p> <p>Foresters on the Forbes State Forest explained how staff works on boundary maintenance. The forest boundary has five divisions, one of which is inspected and the boundaries refreshed annually. The Tuscarora State Forest manager said they give special emphasis to boundary maintenance and trail signage in high use areas (such as the Trail to Flat Rock) to help prevent people from getting lost.</p>
<p><b>2.2. Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.</b> <i>Applicability Note: For the planning and management of publicly owned forests, the local community is defined as all residents and property owners of the relevant jurisdiction.</i></p>	<p>C</p>	
<p><b>2.2.a</b> The forest owner or manager allows the exercise of <b>tenure</b> and <b>use rights</b> allowable by law or regulation.</p>	<p>C</p>	<p>BOF has allowed the continuation of more than 4,000 commercial lease holders within the state foresters as prescribed by law and regulation. BOF has also allowed the exercise of mineral use rights as prescribed by law. Other use rights that are allowed include diverse forms of motorized and non-motorized recreation and hunting.</p>

		<p>See 2.1.b for comments on municipal water supply management.</p>
<p><b>2.2.b</b> In FMUs where tenure or use rights held by others exist, the forest owner or manager consults with groups that hold such rights so that management activities do not significantly impact the uses or benefits of such rights.</p>	<p>C</p>	<p>BOF has procedures for notifying lease holders of activities that may affect their rights, including sending letter and holding formal and informal meetings. BOF has a number of advisory groups related to forest uses that are consulted on management activities. Examples of such advisory groups are those that provided comments for the 2014 annual audit (see Section 5.2 and Appendix 2 of report).</p> <p>A specific example observed during site inspections is the Sore Shins Timber Harvest 032014BC03. The foresters explained how six adjoining cabin lessees had been notified and how one of the tree retention islands had been expanded to accommodate the request of a neighbor. Numerous other harvest stops on the audit included modifications to address aesthetic or habitat concerns of adjoining rights holders.</p>
<p><b>2.3. Appropriate mechanisms shall be employed to resolve 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 certified.</b></p>	<p>C</p>	
<p><b>2.3.a</b> If <i>disputes</i> arise regarding tenure claims or use rights then the forest owner or manager initially attempts to resolve them through open communication, negotiation, and/or mediation. If these good-faith efforts fail, then federal, state, and/or local laws are employed to resolve such disputes.</p>	<p>C</p>	<p>With almost 2.2 million acres of state forestland, BOF manages a large amount of boundary line and disputes can arise. In all cases, BOF resolves the matters through inspection of the situation by land surveyors and advice from legal counsel.</p> <p>A private citizen contacted BOF about another private citizen claiming ownership of an island in the Juniata River that he believed was state forest property. BOF responded in reviewing the situation and receiving counsel from its legal team on the ownership issue. It was determined that although a private and public island had converged, BOF remains the rightful owner of their original land and a property boundary should be determined. The private landowner was advised that this portion of the island is to remain state forestland and he should not deter the public from visiting this portion of land. The Rothrock State Forest</p>

		<p>is in continued communication with the private landowner to ensure this resolution is understood and addressed.</p> <p>BOF does not have any other new disputes over tenure claims or use rights, but resolved one boundary dispute described below.</p> <p>One land dispute was resolved on March 26th, 2014 with the Camp Irem Hunting Club where there were discrepancies in the boundaries marked on the ground. BOF and the Camp Irem Hunting Club agreed to use the boundaries as presently marked in the field rather than resurvey the property to reflect the deeded acres. The boundary was surveyed in the early 1900s and was observed as marked for many decades. It was felt that the boundary line agreement should formalize the status quo and both parties agreed to this. As a result, BOF gave up approximately 15.2 acres that was deeded to us on the Tiadaghton State Forest.</p>
<b>2.3.b</b> The forest owner or manager documents any significant disputes over tenure and use rights.	C	See 2.3.a. Disputes over tenure and use rights are handled using a combination of district and central office staff, and always require documentation for tracking purposes.
<b>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.</b>		
<b>3.1. Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.</b>	NA	
<b>3.1.a</b> Tribal forest management planning and implementation are carried out by authorized tribal representatives in accordance with tribal laws and customs and relevant federal laws.	NA	There are no tribes with lands or territories within the F...
<b>3.1.b</b> The manager of a tribal forest secures, in writing, informed consent regarding forest management activities from the tribe or individual forest owner prior to commencement of those activities.	NA	There are no tribes with lands or territories within the F...
<b>3.2. Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.</b>	C	
<b>3.2.a</b> During management planning, the forest	C	BOF did not have any management activities 2013-14 th...

<p>owner or manager consults with American Indian groups that have legal rights or other binding agreements to the FMU to avoid harming their resources or rights.</p>		<p>affected the legal or informal rights of indigenous people</p> <p>BOF has invited participation from American Indian groups during management plan and maintains a contact list of tribal contacts (last updated January 2013).</p>
<p><b>3.2.b</b> Demonstrable actions are taken so that forest management does not adversely affect tribal resources. When applicable, evidence of, and measures for, protecting tribal resources are incorporated in the management plan.</p>	C	<p>BOF partners with the PA Historical and Museum Commission’s Bureau of Historic Preservation (BHP) to protect archaeological sites, architectural and cultural resources. Details about the database, mapping and protections are described in the Silviculture Manual. See also 3.3.a.</p>
<p><b>3.3. Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.</b></p>	C	
<p>3.3.a. The forest owner or manager invites consultation with tribal representatives in identifying sites of current or traditional cultural, archeological, ecological, economic or religious significance.</p>	C	<p>BOF has attempted to engage tribes that are generally located outside of PA but may have an interest in PA state lands management. To date, tribal representatives have not responded to invited consultation.</p> <p>Bryan Van Sweden of the Bureau for Historic Preservation provided general comments on collaboration with BOF in regards to identifying and preserving known archaeological sites on the Michaux State Forest. See Section 5.2 of report for more information.</p>
<p><b>3.3.b</b> In consultation with tribal representatives, the forest owner or manager develops measures to protect or enhance areas of special significance (see also Criterion 9.1).</p>	C	<p>In the absence of tribal response to invited consultation, BOF has established procedures to protect resources and co-operate and seek the advice of the BHP on matters of new listings and appropriate protections. The BHP’s database is utilized to search for known sites and information about new sites is provided to the BHP for their records.</p>
<p><b>3.4. Indigenous peoples shall be compensated for the 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.</b></p>	NA	
<p><b>3.4.a</b> The forest owner or manager identifies</p>	NA	<p>No proprietary or otherwise protected traditional</p>

whether <b>traditional knowledge</b> in forest management is being used.		knowledge is being used in BOF's forest management.
<b>3.4.b</b> When traditional knowledge is used, written protocols are jointly developed prior to such use and signed by local tribes or tribal members to protect and fairly compensate them for such use.	NA	
<b>3.4.c</b> The forest owner or manager respects the confidentiality of tribal traditional knowledge and assists in the protection of such knowledge.	NA	
<b>Principle #4: Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.</b>		
<b>4.1. The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.</b>	NE	
<b>4.2. Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.</b>	C	
<b>4.2.a</b> The forest owner or manager meets or exceeds all applicable laws and/or regulations covering health and safety of employees and their families (also see Criterion 1.1).	C	<p>There were 66 injuries that required medical attention by Bureau employees. These were all covered by workman's compensation and are tracked in DCNR's Bureau of Human Resources.</p> <p>There have not been any changes in safety or health regulations since the last audit, including internally or with AFSCME or PSRA (employee unions). However, the DCNR safety committee has been working on revising the DCNR Safety Campaign. In August 2013, the Bureau of Human Resources with the support of Secretary Ferretti launched a safety campaign with the theme of "Safety is Self-Respect". The campaign goal is to increase employee awareness about safety and to reduce work related accidents and illnesses. The campaign continues to have the support of Executive Staff and other leaders within the Department. DCNR is continuing its safety message through pledge cards and posters developed with Gretchen Leslie, Communications. These will be distributed to employees in the near future. The campaign also included new supervisor safety training.</p>
<b>4.2.b</b> The forest owner or manager and their employees and contractors demonstrate a safe	C	A logger was seriously injured on a timber sale log landing on the Tuscarora State Forest last year when a log rolled

<p>work environment. Contracts or other written agreements include safety requirements.</p>		<p>top of him from the log pile. BOF staff were notified and immediately responded to the scene to provide first aid until the ambulance arrived. The ambulance took the injured logger to a nearby helipad site for evacuation to hospital.</p> <p>BOF also experienced a fatal incident involving one of its loggers during a logging operation on state forestland. The logger was struck in the neck and shoulders by a falling tree and was found by another logger on site who called 911 and attempted resuscitation. The local dispatch notified the district and a Forest Ranger responded to the scene. Maintenance staff also assisted by providing cinders on the road for ambulance access. The man was pronounced dead on the scene. As part of follow-up to this incident, SFI of Pennsylvania published a safety bulletin in cooperation with BOF (<a href="http://loggingsafety.com/content/broken-hung-tree-falls-timber-cutter">http://loggingsafety.com/content/broken-hung-tree-falls-timber-cutter</a>).</p> <p>Timber harvest contracts examined at all districts cite OSHA and legal requirements as safety requirements. An herbicide application contract examined at Forbes State forest requires that applicators be licensed and has other specific provisions for safe operations (2007 Competing Vegetation Removal Project).</p>
<p><b>4.2.c</b> The forest owner or manager hires well-qualified service providers to safely implement the management plan.</p>	<p>C</p>	<p>BOF requires SFI training for operators and copies of training documentation was included in the contract file and confirmed through stakeholder interviews. Interviews with loggers demonstrated a high level of conformance to this indicator. Steve Forrester takes courses in SFI, Game Logging, and First AID/CPR, and in fact is seven years ahead on continuing education credits. The active sites examined had equipment that was free of permanent leaks and had areas designated for maintenance and fuel storage.</p>
<p><b>4.3 The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labor Organization (ILO).</b></p>	<p>NE</p>	
<p><b>4.4. Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with</b></p>	<p>C</p>	

<p><b>people and groups (both men and women) directly affected by management operations.</b></p>		
<p><b>4.4.a</b> 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:</p> <ul style="list-style-type: none"> <li>• Archeological sites and sites of cultural, historical and community significance (on and off the FMU);</li> <li>• Public resources, including air, water and food (hunting, fishing, collecting);</li> <li>• Aesthetics;</li> <li>• Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health;</li> <li>• Community economic opportunities;</li> <li>• Other people who may be affected by management operations.</li> </ul> <p>A summary is available to the CB.</p>	<p>C</p>	<p>BOF evaluates social impacts at a statewide level, and in each district. State forests are managed for all Pennsylvanians, and each district interacts with its surrounding communities. BOF employs many tools to evaluate social impacts, the following examples illustrate such efforts:</p> <ul style="list-style-type: none"> <li>- <u>Advisory committees:</u> Collaboration, facilitation, information sharing, and informal dialogue are key principles that guide the BOF’s advisory committees. BOF’s approach to promoting stakeholder feedback and methods for managing public meetings. BOF provides specific mechanisms and encourages stakeholders with divergent interests to express their viewpoints and recommendations in an atmosphere that promotes common understandings and acknowledges differing opinions. Gathering diverse opinions allows us to make better, more-informed decisions. This informal approach allows for greater dialogue and transparency and produces recommendations and other products supported and understood by all committee members. If the group identifies differing recommendations, then those differences are noted and provided. The group typically does not vote on recommendations. The recommendations are provided to DCNR for consideration.</li> <li>- <u>SFRMP survey:</u> BOF is beginning the planning process to revise the State Forest Resource Management Plan. BOF created a survey as part of the public participation process for the plan revision. The survey helps BOF understand and consider the public’s interest as the plan is revised. Survey questions were about considerations, values, and satisfaction regarding state forest management activities. The survey was posted on BOF’s website, promoted with a press release, and emails were sent to district stakeholder lists, and statewide lists. Additional opportunities for public</li> </ul>

		<p>input through the process will include written comment and public meetings.</p> <ul style="list-style-type: none"> <li>- <u>SCORP</u>: The State Comprehensive Outdoor Recreation Plan (SCORP) is a plan including a research component that the states prepare and submit to qualify for Land and Water Conservation Fund grants. BOF is engaged in the DCNR effort to develop the plan. The research was in its infancy through 2013, but has included a statistically valid representative resident survey, an open stakeholder survey, a provider survey, and will continue to engage and understand citizens, communities, and stakeholders statewide.</li> <li>- <u>VUM</u>: BOF is engaged in research mirroring the National Visitor Use Monitoring Program. The goal is to produce estimates of the volume of visitation to state forests, and to produce descriptive information about that visitation, including; activity participation, demographics, visit duration, and spending connected to the visit. Studies have been initiated in two districts per year for five years.</li> <li>- <u>Social monitoring (shale gas)</u>: BOF's monitoring program has focused on gas monitoring, and includes a social monitoring specialist. Components of social monitoring have included: focus groups, gas tour surveys, district comment cards, Recreation Opportunity Spectrum, noise monitoring, and aesthetic/viewshed. Many of these items were reflected in the Shale Gas Monitoring Report (Recreation and Community Engagement chapters).</li> <li>- <u>District projects</u>: Each of the 20 forest districts, and Penn Nursery engage stakeholders such as Fire Wardens meetings, Camp Lessees, Conservation Volunteers, or other groups related to specific projects, issues or interests. These outreach efforts provide ongoing feedback on district and state wide management.</li> </ul>
<p><b>4.4.b</b> The forest owner or manager seeks and considers input in management planning from people who would likely be affected by</p>	<p>C</p>	<p>See Advisory committees, Social monitoring (shale gas), other items in 4.4.a.</p>

<p>management activities.</p>		<p>As a public agency, BOF has many efforts to communicate with the public and make every effort to respond to all requests, concerns, ideas, or thoughts. BOF receives stakeholder comments through a variety of methods and responds accordingly. BOF also has a formal process to respond to 'log letters' that include inquiry from the governor's office, inquiries from legislators regarding constituent concerns, or inquiries directly to executive staff.</p> <p>BOF provides very public opportunities to engage with the public and receive comments through the availability of comment cards at the district offices, through emails received at its public PA Forester email account, and participation in the widely attended PA Farm Show and Outdoorsman Show, and at local county fairs.</p> <p>To demonstrate the response process, below are two examples of requests or comments that were received in the last year and BOF's follow-up:</p> <ul style="list-style-type: none"> <li>- As requested by stakeholders and the public, BOF posted data relating to the Shale Gas Monitoring Report on its public website for public use and consumption. BOF began by posting water and infrastructure data and plans to continue making this data available. This was in response to stakeholders' interest in viewing the source data and the analysis in the report.</li> <li>- A private citizen contacted BOF about another private citizen claiming ownership of an island in the Juniata River that he believed was state forest property. BOF responded in reviewing the situation and receiving counsel from its legal team on the ownership issue. It was determined that although private and public island had converged, BOF remains the rightful owner of their original land and a property boundary should be determined. The private landowner was advised that this portion of the island is to remain state forestland and he should not deter the public from visiting this portion of land. The Rothrock State Forest is in continued communication with the private</li> </ul>
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		landowner to ensure this resolution is understood and addressed.
<b>4.4.c</b> 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.	C	See Advisory committees, Social monitoring (shale gas), other items in 4.4.a and 4.4.b.
<b>4.4.d</b> For <b>public forests</b> , consultation shall include the following components: <ol style="list-style-type: none"> <li>1. Clearly defined and accessible methods for public participation are provided in both long and short-term planning processes, including harvest plans and operational plans;</li> <li>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;</li> <li>3. An accessible and affordable appeals process to planning decisions is available.</li> </ol> Planning decisions incorporate the results of public consultation. All draft and final planning documents, and their supporting data, are made readily available to the public.	NC	Although BOF has yet to implement the posting of planned timber harvest areas, it warrants mention that the comprehensive action plan BOF has proposed. The document shows that BOF really is trying to think beyond the narrow scope of the CAR, which demonstrates a significant commitment to improving transparency and public engagement.  See <b>Major CAR 2014.1.</b>
<b>4.5. Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.</b>	NE	
<b>Principle #5: Forest management operations shall encourage the efficient use of the forest’s multiple products and services to ensure economic viability and a wide range of environmental and social benefits.</b>		
<b>5.1. Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.</b>	NE	
<b>5.2. Forest management and marketing operations should encourage the optimal use and local processing of the forest’s diversity of products.</b>	NE	

<p><b>5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</b></p>	<p>NE</p>	
<p><b>5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</b></p>	<p>NE</p>	
<p><b>5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.</b></p>	<p>NE</p>	
<p><b>5.6. The rate of harvest of forest products shall not exceed levels which can be permanently sustained.</b></p>	<p>C</p>	
<p><b>5.6.a</b> In FMUs where products are being harvested, the landowner or manager calculates the sustained yield harvest 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.</p> <p>The sustained yield harvest level calculation for each planning unit is based on:</p> <ul style="list-style-type: none"> <li>• documented growth rates for particular sites, and/or acreage of forest types, age-classes and species distributions;</li> <li>• mortality and decay and other factors that affect net growth;</li> <li>• areas reserved from harvest or subject to harvest restrictions to meet other management goals;</li> <li>• silvicultural practices that will be employed on the FMU;</li> <li>• management objectives and desired future conditions.</li> </ul> <p>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</p>	<p>C</p>	<p>BOF’s Harvest Allocation Model (HAM) developed timber harvest schedules that considered the long-term sustainable flow of forest products and would lead to desirable sustainable forest structure on state forestland. The HAM specifically addressed several goals and objectives from the State Forest Resource Management Plan:</p> <ul style="list-style-type: none"> <li>- To promote and maintain desired landscape conditions, including balancing the age class distribution of the multiple resource, commercial land base.</li> <li>- To ensure and maintain areas of older forest.</li> <li>- To provide economic and social benefits through sustained yield of forest products.</li> <li>- To determine sustainable, long-term timber harvest levels.</li> <li>- To promote silvicultural practices that sustains ecological and economic forest values.</li> <li>- To develop feasible timber management plans considering forest regeneration issues and resources available to the Bureau of Forestry.</li> </ul> <p>The HAM was developed on a 140-year rotation schedule to meet these goals, broken into 10-year planning horizons to serve as average benchmarks during the horizon. BOF just completed the first decade and will be moving into the second decade planning horizon, which includes new targets for the 10-year average (HarvestAllocationModel.doc, HarvestGoals.pdf, Model</p>

multiple re-entries.		Description.doc).
<p><b>5.6.b</b> Average annual harvest levels, over rolling periods of no more than 10 years, do not exceed the calculated sustained yield harvest level.</p>	C	<p>During the last decade of BOF’s 10-year planning horizon the average annual cut was 14,337 to reach the goals of Harvest Allocation Model (HarvestAllocationModel.doc, HarvestGoals.pdf, Model Description.doc). During the 10-year planning horizon, in some years BOF harvested more or less than this average, and last year (2013) it cut 16,900 acres. This was the last year of the 10-year planning horizon and BOF finished at 101% for the decade.</p>
<p><b>5.6.c</b> Rates and methods of timber harvest lead to achieving desired conditions, and improve or maintain health and quality across the FMU. Overstocked stands and stands that have been depleted or rendered to be below productive potential due to natural events, past management, or lack of management, are returned to desired stocking levels and composition at the earliest practicable time as justified in management objectives.</p>	C	<p>Most of the harvests observed in 2014 were even-aged systems involving overstory removal where regeneration has established naturally under a stand of existing desirable species, shelterwood, and salvage. Retention is maintained in clumps or as dispersed individuals for seed or den trees as well as recruitment for snags. BOF has remained within harvest limits and stays on top of areas affected by storm or forest health issues such as insects or disease.</p>
<p><b>5.6.d</b> For NTFPs, calculation of quantitative sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new information that can be reasonably gathered, to set harvesting levels that will not result in a depletion of the non-timber growing stocks or other adverse effects to the forest ecosystem.</p>	C	<p>NTFPs are not harvested for significant commercial purposes. Records show that miscellaneous personal use permits are issued for insignificant amounts of lycopodium moss, and shale. Income from these sales is compiled annually in ForestProductsAnnualReport2013.pdf.</p> <p>Ginseng is a coveted product in many parts of the world. The plant is found on fertile sites scattered throughout state forestland and has been harvested in the past, regulated only by the requirement of a \$5 permit. This practice was discontinued several years ago so BOF could assess the population of the species in the forest and determine if sustainable harvest levels could be established. The most recent change in the state’s ginseng harvest has been to change the harvest season to match that of surrounding states to prevent illegal harvests.</p>
<p><b>Principle #6: Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.</b></p>		
<p><b>6.1. Assessments of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated</b></p>	NE	

<p><b>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.</b></p>		
<p><b>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.</b></p>	C	
<p><b>6.2.a</b> 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.</p> <p>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.</p>	C	<p>BOF conducts various surveys for RTE species. Botanists and Wildlife Biologists in the Ecological Services Section monitor known populations of RTE species and routinely survey for these species to keep the information up-to-date and to be aware of any conservation management needs. In addition, through Pennsylvania Natural Diversity Index reviews, foresters or project managers query for potential impacts to RTE species during the planning stages for timber, recreation, or other projects on state forestland. If a potential impact is identified, Botanists or Wildlife Biologists in the Ecological Services Section review the project and may perform surveys or field assessments if necessary to develop protection guidelines/mitigations for the RTE populations.</p> <p>The Ecological Services Section also performs routine surveys for new populations of RTE species and ensures new information is entered into the proper databases and forest managers are aware of new populations. In cooperation with the Western Pennsylvania Conservancy, BOF contracts survey work for larger areas that may have gas development impacts to assess and survey known or new RTE species populations. BOF is also part of the Pennsylvania Natural Heritage Program and collaborates with specialists from the PA Game Commission, PA Fish and Boat Commission, Western Pennsylvania Conservancy, and US Fish and Wildlife Service to continually monitor, survey, and manage for RTE species on state forestland.</p>

		<p>Numerous timber harvest sites visited on the 2014 field tour (see site notes) had potential E&amp;S species hits. Wildlife biologists explained their role in conducting site inspections and prescribing precautions if suitable habitat was present.</p> <p>Biologists on the Tuscarora State Forest (and elsewhere) are using wildlife cameras to record and document the activities of Golden Eagles and other rare species. Live webcams at eagle sites are very popular with the public, receiving thousands of Internet visits per month. The Bureau of Forestry Information &amp; Communications Section Chief explained a number of Internet outreach efforts DNR has designed to respond to the public's intense interest in occurrences of special wildlife and plants. The Ecological Services Division Chief explained new web tools being developed that will make access to natural heritage databases (at the appropriate level of specificity) easier for users.</p>
<p><b>6.2.b</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. <b>Conservation zones</b> and/or <b>protected areas</b> 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.</p>	<p>C</p>	<p>No new conservation zones or protection areas were designated in the past year.</p> <p>Pennsylvania Natural Diversity Index (PNDI) reviews are conducted on all activities on state forest lands and reviewed for any potential impacts for plants or wildlife. This includes timber management, habitat improvement management, trails, parking areas, educational areas, energy infrastructure, etc. BOF's Botanists and Wildlife Biologists, or partners working with its specialists, may survey the project site before the activity begins if reasonable impacts may be anticipated. Projects are often also revisited after they are concluded to assess the amount of impact, if any. BOF tracks its observations in reports and a SharePoint tracking database. In addition, the Botanist and Wildlife Biologist embedded in the Marcellus monitoring program conduct more intensive monitoring efforts to assess any changes in the forest in areas managed for gas extraction (<a href="http://www.dcnr.state.pa.us/forestry/NaturalGas/monitoringreport/index.htm">http://www.dcnr.state.pa.us/forestry/NaturalGas/monitoringreport/index.htm</a>). Activities are tracked for non-timber forest products such as ginseng licenses and amounts of ginseng that get certified through its district offices. Notable specific measures that were taken to protect RTE</p>

	<p>species during PNDI reviews included:</p> <ul style="list-style-type: none"> <li>- Reconfiguring the plan specification to provide access to bat species above the tunnel in a project to address safety issues at the Poe Paddy Train Tunnel (vital hiking trail connector).</li> <li>- Relocating an ATV trail to protect timber rattlesnake habitat.</li> <li>- Protection of a bat hibernacula during a strip mine reclamation project.</li> <li>- Ongoing project requests to protect timber rattlesnake habitat – do not disturb rocky features near known gestation or den habitat, do not disturb rocky areas during hibernation periods, no heavy equipment use during active season, buffering rocky outcroppings, and educating workers on safety in regards to timber rattlesnake interactions.</li> <li>- 100 meter avoidance measure from wetlands with known populations of the federally Endangered northeastern bulrush.</li> </ul> <p>Management activities in Wild and Natural Areas (WNA) are restricted, but management activities may be approved for a variety of reasons that benefit conditions within WNAs. State Forest Environmental Reviews are conducted for these projects with an internal review to ensure no impacts to the WNA are expected and waivers to allow restricted activities may be granted with approval from the State Forester. A few notable projects from 2013 include treating old growth hemlock trees in several Natural Areas to protect them from the hemlock wooly adelgid, re-routed trails through WNAs to improve condition and decrease environmental impacts, low basal area harvesting of live dead trees along roads bordering Wild Areas (harvesting prohibited in Natural Areas), and decreasing shading vegetation in a Natural Area to improve habitat in a timber rattlesnake gestation site.</p> <p>High Value Conservation Forests are considered during management activities and no activities have occurred within them that diminish the values for which the HCVPs were designated. Management activities often do not affect HCVPs, but when they do, specialists and a review is performed to ensure the activity fits into the overall</p>
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		<p>management for the HCVR. Where possible, BOF encourages management in these areas to promote or sustain the values for which the HCVF was designated.</p>
<p><b>6.2.c</b> For medium and large public forests (e.g. state forests), forest management plans and operations are designed to meet species' recovery goals, as well as landscape level biodiversity conservation goals.</p>	<p>C</p>	<p>DCNR is engaged in development of a Bat Habitat Conservation Plan for Indiana bats and northern long-eared bats. Rather than just focus on seasonal cutting restrictions to save bats in hardwood stands, the HCP looks at larger landscape-scale efforts to provide a shifting mosaic of early successional forest cover favorable to bats. The plan will involve monitoring over a 30-year time period if adopted. Most likely, BOF will have a draft HCP and EIS for public review in June 2015 and a final HCP at the end of 2015, beginning of 2016.. The plan includes input from a broad spectrum of experts and stakeholders.</p> <p>Through interviews with BOF wildlife staff and reviews of site plans, it was found that BOF incorporates wildlife considerations into all projects. Harvest areas frequently include exposing rock faces for reptiles, particularly for threatened timber rattlesnakes. Retained trees and openings provide forage and cover for small mammals that the snakes feed on. In addition to common harvest types, landscape conservation objectives are also met through specific management areas. For example, the Mt. Stream Wildlife area is managed for bird species that depend on early successional habitat.</p>
<p><b>6.2.d</b> Within the capacity of the forest owner or manager, hunting, fishing, trapping, collecting and other activities are controlled to avoid the risk of impacts to vulnerable species and communities (See Criterion 1.5).</p>	<p>C</p>	<p>BOF does not authorize recreational or hunting/collecting activities that could impact RTE species and BOF reports no unauthorized activities. The Ecological Services Section issues permits for the collection of Threatened or Endangered plants across the Commonwealth. Collection is restricted to voucher specimens associated with RTE plant surveys and could be associated with management activities on state forestland. Those collecting T&amp;E plants agree to follow specific guidelines (<a href="http://www.gis.dcnr.state.pa.us/hgis-er/PNDI_DCNR.as">http://www.gis.dcnr.state.pa.us/hgis-er/PNDI_DCNR.as</a>) Due to proper PNDI reviews and project mitigations, no species, habitats or plant communities were known to be negatively impacted during management activities. However, a variety of projects were implemented on state forestland to enhance RTE species habitat or population.</p>

		<p>as well, including these notable examples:</p> <ul style="list-style-type: none"> <li>- In cooperation with US Fish and Wildlife Service, light conditions were increased to a population of the federally endangered northeastern bulrush by treating a couple overstory trees in a Wild Plant Sanctuary (also HCVF).</li> <li>- Woodrat habitat enhancement continued last year in conjunction with PGE in the Pine Creek Valley association with gas development in the area.</li> <li>- Timber rattlesnake habitat enhancement projects were conducted in 3 districts.</li> <li>- Allegheny chinquapin habitat, a species with a very limited range in PA, was enhanced to promote growth and reproduction of the species and to gather seed to be grown at Penn Nursery for conservation efforts.</li> <li>- Management to improve habitat structure and species composition on a designated HCVF containing several state-listed grassland bird species.</li> <li>- Vegetation clearing at a Wild Plant Sanctuary to increase suitable habitat for several globally rare serpentine plant species.</li> </ul> <p>Interviews with DCNR staff indicate the agency is an active participant in PA Fish and Boat Commission and Game Commission proceedings on establishment of fishing and hunting regulations.</p>
<p><b>6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.</b></p>	<p>C</p>	
<p><b>6.3.a.1</b> The forest owner or manager maintains, enhances, and/or restores under-represented <i>successional</i> stages in the FMU that would naturally occur on the types of sites found on the FMU. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is</p>	<p>C</p>	<p>Through the promotion of ecosystem management as the guiding philosophy for state forest management, maintaining or enhancing under-represented, naturally occurring successional stages and plant species composition and distribution is addressed during management activities. Direction in the State Forest Resource Management Plan (SFRMP) includes managing towards a balanced age class distribution on sites suitable for commercial forest</p>

<p>managed to enhance and/or restore old growth characteristics.</p>		<p>management. By working towards this balanced age class approach, under-represented early successional habitats will be increased over time. The model also considers extended rotation ages for different forest types and site classes to ensure areas of older forest beyond the minimum rotation age. As mentioned in C5.6, the Harvest Allocation Model is used to achieve this goal and BOF is entering the second 10-year planning cycle for implementation of the model. This approach will promote under-represented, naturally occurring successional stages on state forestland. During timber harvest activities, reservation guidelines are employed to conserve biodiversity and distribution of the tree species in the resulting stand. These guidelines consider the genetic, species composition, and structural composition during silvicultural operations (BOF_reservation_guidelines.doc). In areas that are not considered suitable for timber management, additional areas are set aside for the development of old growth in a number of community types designated as Natural Areas, Wild Areas, and 'Limit Zone' areas. (20140603_SFL_Zoning) Unique or under-represented communities on state forestland are incorporated and protected in Natural Areas system as set asides, including all identified existing old growth forests. Additionally, almost 500,00 acres (~23% of the FMU) have been identified as potential old growth areas with the goal of reducing and limiting forest fragmentation and promoting connectivity of high canopy forests by retaining large patches of intact forest with minimal disturbance.</p>
<p><b>6.3.a.2</b> When a <i>rare ecological community</i> is present, modifications are made in both the management plan and its implementation in order to maintain, restore or enhance the viability of the community. Based on the vulnerability of the existing community, <i>conservation zones</i> and/or <i>protected areas</i> are established where warranted.</p>	<p>C</p>	<p>2014 site visits included rare ecological community protected areas such as hemlock natural areas (which are receiving targeted pesticide applications per a Hemlock Woolly Adelgid Action Plan), vernal ponds (including a research site to improve habitat for the endangered bullwinkle (<i>Scryptus galifornicus</i>), and an American Woodcock Habitat Management Area (protected in the FMP through management zoning).</p> <p>If PNDI data detects a rare plant or community, forest managers consult relevant staff to modify management plans to avoid such areas or devise activities that will aid</p>

		<p>with recovery or maintenance. Some communities have site-specific plans (e.g., Spruce Bog in Forbes State Forest) that include basic maintenance activities, such as invasive species control.</p>
<p><b>6.3.a.3</b> When they are present, management maintains the area, structure, composition, and processes of all <b>Type 1</b> and <b>Type 2 old growth</b>. Type 1 and 2 old growth are also protected and buffered as necessary with conservation zones, unless an alternative plan is developed that provides greater overall protection of old growth values.</p> <p>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).</p> <p>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).</p> <p>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).</p> <p>On American Indian lands, timber harvest may be permitted in Type 1 and Type 2 old growth in recognition of their sovereignty and unique</p>	<p>C</p>	<p>BOF does not harvest in identified Type 1 old growth forests, which are incorporated and protected in the Natural Areas system and represent less than 1% of the entire FMU. 1,066,269 acres (nearly half of the forest area) are afforded varying levels of protection, including Type 1 like old growth occurring on steep slopes that are not harvested.</p> <p>All Natural Areas are subject to a 600-foot buffer during management activities. Exceptions can be made when a road, pipeline, or powerline serve as a boundary of the designated area, in which case a 300-foot wide buffer applies. Active management in the Natural Areas system can only occur if the activity will benefit the values for which the area was designated as a Natural Area and the activities must go through a State Forest Environmental Review and receive state forester approval before implementation. Several old growth hemlock stands in the Natural Area system were treated in 2013, and more are planned, to protect hemlocks from the hemlock wooly adelgid, thus, protecting the old growth values for which the areas were designated.</p>

<p>ownership. Timber harvest is permitted in situations where:</p> <ol style="list-style-type: none"> <li>1. Old growth forests comprise a significant portion of the tribal ownership.</li> <li>2. A history of forest stewardship by the tribe exists.</li> <li>3. High Conservation Value Forest attributes are maintained.</li> <li>4. Old-growth structures are maintained.</li> <li>5. Conservation zones representative of old growth stands are established.</li> <li>6. Landscape level considerations are addressed.</li> <li>7. Rare species are protected.</li> </ol>		
<p><b>6.3.b</b> To the extent feasible within the size of the ownership, particularly on larger ownerships (generally tens of thousands or more acres), management maintains, enhances, or restores habitat conditions suitable for well-distributed populations of animal species that are characteristic of forest ecosystems within the landscape.</p>	<p>C</p>	<p>General forest management activities have various positive impacts on wildlife habitat and function. Shelterwood harvests are known to support songbird species, including the golden-winged warbler. Invasive plant treatments encourage native vegetation and structure that enhance wildlife habitat and food sources. Prescribed fire may promote oak regeneration and in turn, maintain an oak component in the forest canopy, a vital mast producing species for a variety of wildlife species. Several specific management or restoration activities to benefit wildlife habitat and function have occurred in the past year on state forestland.</p> <ul style="list-style-type: none"> <li>- Many districts have been planning and implementing projects to improve habitat for woodcock, a species that has been in decline in the state. These activities were planned in cooperation with the Pennsylvania Game Commission and will in turn also improve habitat for other early successional species, such as grouse, songbirds, game species.</li> <li>- An on-going project to create habitat for the golden-winged warbler using silvicultural practices and incorporating an existing powerline right-of-way has begun in one forest district in coordination with the Pennsylvania Game Commission and academic researchers.</li> <li>- Planting native mast-producing shrubs around oil and gas infrastructure to enhance species diversity and</li> </ul>

		<p>wildlife habitat, while also improving edge effects</p> <ul style="list-style-type: none"> <li>- Many districts planted native species that benefit wildlife and improve habitat function in previously disturbed areas, including old strip mines, along pipeline corridors, and seeding native grasses to rejuvenate species composition in permanent herbaceous openings.</li> <li>- Installation of duck and bat boxes.</li> </ul> <p>Other examples of activities to benefit wildlife habitat and function can be found in C6.2.</p>
<p><b>6.3.c</b> Management maintains, enhances and/or restores the plant and wildlife habitat of <b>Riparian Management Zones (RMZs)</b> to provide:</p> <ol style="list-style-type: none"> <li>a) habitat for aquatic species that breed in surrounding uplands;</li> <li>b) habitat for predominantly terrestrial species that breed in adjacent <b>aquatic habitats</b>;</li> <li>c) habitat for species that use riparian areas for feeding, cover, and travel;</li> <li>d) habitat for plant species associated with riparian areas; and,</li> <li>e) stream shading and inputs of wood and leaf litter into the adjacent aquatic ecosystem.</li> </ol>	<p>C</p>	<p>Riparian Management Zones are managed on state forestland through BOF's Aquatic Buffer Guidelines and general buffer guidelines. These buffers are focused on providing connectivity, wildlife habitat, and protecting water quality. Streams, seeps, vernal pools and wetlands receive specific inner and outer zone buffers. These buffers provide appropriate habitat for toads, turtles, salamanders and many other species to return to aquatic habitats during breeding seasons to successfully reproduce. Additionally, through this management, species have the ability to utilize surrounding terrestrial habitats throughout the year. Vernal pool complexes are managed in a manner to allow for connectivity wherever possible. Stream crossings may be incorporated into timber harvests and require permits granted from the Department of Environmental Protection. Stream crossings are avoided during sale layout as best as possible, but when stream crossings are necessary for harvest implementation, all best management practices, regulations, and buffer guidelines are followed.</p> <p>A few projects to enhance riparian or stream conditions and function also occurred in the last year:</p> <ul style="list-style-type: none"> <li>- In cooperation with the PA Fish and Boat Commission, stream restoration in the former Bear Run Reservoir to install trout habitat enhancement structures for approximately 1 mile of a degraded stream habitat.</li> <li>- Installation of stream structures on cold water fishery streams in cooperation with local conservation districts.</li> <li>- Mine reclamation projects to create suitable rooting mediums for tree growth, restore soil pH</li> </ul>

		<p>reshape to near original contours, and improve the quality of runoff from the sites (planned and in progress).</p> <p>Installation of an approved structure outside of a natural streambed of a cold water fishery to improve raise water pH and improve water quality. This was conducted as part of a larger project to restore water quality in a larger watershed with unnaturally high acidic conditions due to acid deposition and other past human activities. Of the 2014 field sites included a stream on the Tuscarora State Forest that had received limestone sand amendments to counteract acid rain impacts on fish habitat. The forest roads specialist described special limestone aggregate use on forest roads near streams that help buffer acid rain. At the "3 Square Hollow" Plant Sanctuary, vegetation management was occurring to improve vernal pond habitats.</p>
<p><b>Stand-scale Indicators</b></p> <p><b>6.3.d</b> Management practices maintain or enhance plant species composition, distribution and frequency of occurrence similar to those that would naturally occur on the site.</p>	<p>C</p>	<p>Harvest recovery techniques observed on site visits leverage natural regeneration. Pitch pine and other hardwood pines are reserved from cutting in stand harvests intended to increase the conifer component, and native pines are replanted if natural regeneration is in doubt. Hundreds of stands on the forest have been protected from deer browsing by erecting tall fences. The PA legislature enacted a law that relaxes liability concerns for proper use of prescribed fire, making it practical for forest managers to use fire to restore natural forest composition. Three timber harvest sites visited on the Forbes State Forest demonstrated how effective fire can be in helping re-establish oaks. Through mostly even-aged management systems, overstory removal, shelterwood, and salvage observed in 2014 mimic disturbances caused by wind or pathogens. Fencing is used to protect or secure regeneration given the overabundance of deer.</p>
<p><b>6.3.e</b> When planting is required, a local source of known provenance is used when available and when the local source is equivalent in terms of quality, price and productivity. The use of non-local sources shall be justified, such as in situations where other management objectives (e.g. disease resistance or adapting to climate change) are best</p>	<p>C</p>	<p>Seed sources for the past year primarily came from Pennsylvania Nursery, BOF's own nursery that supplies state forests with seedlings. Seed for growing stock area at the nursery is collected on state forestland or within designated genetic conservation zones ('seed zones') to employ native germplasm in revegetation or artificial regeneration activities. Most of the stock planted in the past year was</p>

<p>served by non-local sources. <b>Native species</b> suited to the site are normally selected for regeneration.</p>		<p>for salvage sales, but some supplemental planting was conducted for standard live regeneration treatments of hard pine. Only native species are used currently.</p>
<p><b>6.3.f</b> Management maintains, enhances, or restores habitat components and associated stand structures, in abundance and distribution that could be expected from naturally occurring processes. These components include:</p> <ul style="list-style-type: none"> <li>a) large live trees, live trees with decay or declining health, <b>snags</b>, and well-distributed coarse down and dead woody material. <b>Legacy trees</b> where present are not harvested; and</li> <li>b) vertical and horizontal complexity.</li> </ul> <p>Trees selected for <b>retention</b> are generally representative of the dominant species found on the site.</p>	<p>C</p>	<p>DCNR’s Silviculture Manual provides detailed guidelines retention of snags, mast producing trees, legacy trees, etc. Timber sales inspected during the audit exhibited abundant snags, legacy trees, clumps of retained trees, and downed woody debris. Interviews with foresters confirmed their understanding of the important of retention and the spatial distribution of retained trees.</p> <p>During discussions at 2014 field sites, foresters described efforts to reduce populations of black gum trees and mountain laurel, but these species are in overabundance and at no risk of elimination. On all harvest sites visited in 2014, retention of live trees occurred in groups or as dispersed individuals for the purposes of seed or den tree. Retained trees include representative species. The use of retention in groups is used to retain smaller or slower growing species and to promote vertical and horizontal complexity. Snags and downed-woody debris were observed throughout harvest sites.</p>
<p><b>6.3.g.1</b> In the Southeast, Appalachia, Ozark-Ouachita, Mississippi Alluvial Valley, and Pacific Coast Regions, when <b>even-aged systems</b> are employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit as described in Appendix C for the applicable region.</p> <p>In the Lake States Northeast, Rocky Mountain and Southwest Regions, when even-aged silvicultural systems are employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit in a proportion and configuration that is consistent with the characteristic natural disturbance regime unless retention at a lower level is necessary for the purposes of restoration or rehabilitation. See Appendix C for additional regional requirements and guidance.</p>	<p>C</p>	<p>BOF conducted 8,148 acres of even-aged harvests, and reported no known problems in meeting retention guidelines. All even-aged harvests visited had level of retention consistent with the Appalachian regional indicators.</p>

<p><b>6.3.g.2</b> 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:</p> <ol style="list-style-type: none"> <li>1. Is developed by qualified experts in ecological and/or related fields (wildlife biology, hydrology, landscape ecology, forestry/silviculture).</li> <li>2. Is based on the totality of the <b>best available information</b> including peer-reviewed science regarding natural disturbance regimes for the FMU.</li> <li>3. Is spatially and temporally explicit and includes maps of proposed openings or areas.</li> <li>4. Demonstrates that the variations will result in equal or greater benefit to wildlife, water quality, and other values compared to the normal opening size limits, including for sensitive and rare species.</li> <li>5. Is reviewed by independent experts in wildlife biology, hydrology, and landscape ecology, to confirm the preceding findings.</li> </ol>	<p>C</p>	<p>Three of the harvest sites visited in 2014 exceeded Appalachian opening size limits. Each sale had gone through an expert review and received approved derogations based on needs for golden wing warbler habitat, overcoming projected deer browsing issues and other justified resource improvement objectives. No deviations from the regional limits were reported or detected in the 2014 audit.</p>
<p><b>6.3.h</b> The forest owner or manager assesses the risk of, prioritizes, and, as warranted, develops and implements a strategy to prevent or control <b>invasive species</b>, including:</p> <ol style="list-style-type: none"> <li>1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems;</li> <li>2. implementation of management practices that minimize the risk of invasive establishment, growth, and spread;</li> <li>3. eradication or control of established invasive populations when feasible: and,</li> <li>4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species.</li> </ol>	<p>C</p>	<p>Invasive plants are dealt with in a number of ways on State forest lands. At the general level districts locate, track, and prioritize treatment of invasive plants when possible during the year and where treatment will be most effective. Personnel are routinely trained in identification and treatment of invasive plants, and courses are offered throughout the year that includes pesticide certification credits. Each district appoints an invasive plant coordinator that is responsible for communicating invasive plant issues to central office staff, where the Ecological Services Section plays a major role in providing direction in invasive plant management. DCNR also established an agency-wide Invasive Species Team to develop and implement the DCNR Invasive Species Management Plan (plants, insects, diseases, etc):</p> <p><a href="http://www.dcnr.state.pa.us/cs/groups/public/document/document/dcnr_002854.pdf">http://www.dcnr.state.pa.us/cs/groups/public/document/document/dcnr_002854.pdf</a>). BOF recognizes the need for a more focused approach to invasive plant management</p>

		<p>and has developed an invasive plant prioritization approach, EDRR protocols for high priority invasive plants in gas development areas, and continues to work on developing a bureau-wide plan for invasive plant prioritization, treatment, and reporting.</p> <p>A few notable projects from the past year regarding invasive plants:</p> <ul style="list-style-type: none"> <li>- Several districts have partnered with electric powerline companies to treat high priority populations of invasive plants in rights-of-way. This demonstrates active coordination between the districts and the companies to have vegetation management in powerlines follow BOF standards and goals.</li> <li>- Several research projects have been ongoing regarding the potential use of a verticillium wilt as biocontrol for <i>Ailanthus altissima</i> (<a href="http://www.nrs.fs.fed.us/units/sustainingforests/local-resources/downloads/wilt_handout.pdf">http://www.nrs.fs.fed.us/units/sustainingforests/local-resources/downloads/wilt_handout.pdf</a>).</li> <li>- Districts continue to monitor sites where weevils were released to treat mile-a-minute and have reported varied results.</li> <li>- Invasive shrub treatments in an HCVF area designated for grassland birds to maintain the non-woody, grassy structure of the species' preferred habitat.</li> </ul> <p>The Forest Pest Management Division provides support to protect forest resources from forest pests and other destructive agents. The division provides technical assistance to state-wide forest landowners and managers as well as to state forest managers, to evaluate factors affecting forest health through an integrated pest management approach. Insect and disease trends on state forestland for the last year included:</p> <ul style="list-style-type: none"> <li>- Forest Pest Management Division and the Silviculture Section collaborated on developing an Ash Management Plan for state forestland that provides direction on addressing the impacts from the emerald ash borer and ash decline in Pennsylvania. This plan is being implemented throughout the state.</li> </ul>
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		<p>year.</p> <ul style="list-style-type: none"> <li>- In conjunction with Forest Pest Management, districts continue to treat hemlock trees, with priority given to old growth hemlock and those in ecologically sensitive areas, to protect them against the hemlock wooly adelgid and hemlock scale. Most of this activity has occurred in designated Natural Areas and requires a formal environmental review.</li> <li>- ~40,000 acres of public land were treated in 2014 for gypsy moth, including state forestland, state gamelands, and state parks. Most occurred on state forestland. No treatments for gypsy moth were conducted in 2014, although the division has noticed an increase of gypsy moth activity in hot spots across the state and continues to monitor for damage.</li> <li>- A complex of native defoliators was also seen to increase in 2014. Although BOF does not perform any treatments to native pests, Forest Pest Management continues to monitor the activity and damage.</li> </ul>
<p><b>6.3.i</b> 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.</p>	<p>C</p>	<p>The use of prescribed fire as a management tool to reduce competing vegetation and promote oak regeneration continues to increase on the FMU. In 2013, BOF conducted prescribed burns to cover 844 acres. No other fuel reduction activities were conducted.</p> <p>In 2009, the Pennsylvania General Assembly recognized the importance of prescribed burning in the <a href="#">Pennsylvania Prescribed Burning Practices Act</a>. This act provides requirements for the regulation and implementation of prescribed burning in Pennsylvania. Liability risk is reduced if prescribed fires are conducted according to DCNR reviewed and approved burning plans. The legislation makes use of prescribed fire a more viable option in PA compared to most other states.</p> <p>There were 27 wildfires on state forestland on 606 acres of which were considered human-caused with the exception of two separate fires covering less than 3 acres.</p>

		and assumed to be lightning-caused.
<b>6.4. Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.</b>	NE	
<b>6.5 Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.</b>	C	
<b>6.5.a</b> The forest owner or manager has written guidelines outlining conformance with the Indicators of this Criterion.	C	BOF has written guidelines for control of erosion, road construction, and protection of water resources as elaborated in the summary document, "Erosion and Sedimentation Guidance for State Forest Management," developed in response to OBS 2013.2. Interviews with forestry field staff indicated ready access to the guidelines via the DCNR Intranet.
<b>6.5.b</b> Forest operations meet or exceed Best Management Practices (BMPs) that address components of the Criterion where the operation takes place.	C	<p>Site inspections indicate attention to measures to prevent erosion and sedimentation. Approximately 18 timber harvest sites were visited by the audit team. The sites were located within "multiple resource management zones" that are characterized by low/moderate slopes and good drainage. All sites illustrated considerable attention to efforts to protect soil and to avoid erosion. Foresters prescribed logging equipment to protect soils and advance regeneration. Forest roads were well-designed with water diversions, seeding, water crossings, etc. Timber sale contracts include detailed road and trail BMP precautions. District road specialists described roads inventories and planning 2-3 years in advance for road needs. DCNR described harvest equipment inspections including checks for spill kits and fluid leaks.</p> <p><u>Implementation and maintenance of forestry BMPs in PA required by law [PA Code Title 25 § 102.4(b)(1)].</u></p> <p>Additionally, operations that will disturb 5,000 square feet or more of earth (~0.11 acres - which encompasses most harvesting operations) are required to develop a written Erosion and Sedimentation Control Plan (E&amp;S Plan) that</p>

		<p>outlines the nature of the operation, the BMPs that will be used to prevent erosion and sedimentation, and a plan for how those BMPs will be maintained. Timber harvesting operations that disturb 25 or more acres (total area of harvest roads, landings, and skid trails) are required to obtain an erosion and sediment control permit from their County Conservation District. DCNR timber sale regulations require that the E&amp;S plan be clearly posted at the logging site.</p> <p>Water quality monitoring and reporting is conducted by the Pennsylvania Department of Environmental Protection. The <a href="#">2012 DEP water quality report</a> states that less than 0.13% (thirteen one-hundredths of a percent) of Pennsylvania's impaired stream miles are attributed to forestry activities.</p>
<p><b>6.5.c</b> Management activities including site preparation, harvest prescriptions, techniques, timing, and equipment are selected and used to protect soil and water resources and to avoid erosion, landslides, and significant soil disturbance. Logging and other activities that significantly increase the risk of landslides are excluded in areas where risk of landslides is high. The following actions are addressed:</p> <ul style="list-style-type: none"> <li>• Slash is concentrated only as much as necessary to achieve the goals of site preparation and the reduction of fuels to moderate or low levels of fire hazard.</li> <li>• Disturbance of topsoil is limited to the minimum necessary to achieve successful regeneration of species native to the site.</li> <li>• Rutting and compaction is minimized.</li> <li>• Soil erosion is not accelerated.</li> <li>• Burning is only done when consistent with natural disturbance regimes.</li> <li>• Natural ground cover disturbance is minimized to the extent necessary to achieve regeneration objectives.</li> <li>• Whole tree harvesting on any site over multiple rotations is only done when research indicates soil productivity will not be harmed.</li> <li>• Low impact equipment and technologies is</li> </ul>	<p>C</p>	<p>About half of the PA State Forest area is located in Limited Resource Management Zones to avoid active management on higher risk sites due to wetlands or topographic constraints. Recreation, aesthetics, water, and soil protection are the primary values in protected zones. These zones are not part of the commercial forest land base.</p> <p>The specific actions listed in this indicator are addressed in PA DCNR silviculture guides and the compendium of documents noted in 6.5.a. Observed practices on 18 visit harvests and other activities such as bridge replacement and prescribed burn sites described in the site notes are in conformance.</p> <p>Auditors observed examples of slash distributed over harvest sites and used to protect soil resources. BMPs installed for controlling and dispersing drainage were effective in minimizing impacts to soil and water resources. Whole-tree harvesting was not observed. Burning observed is consistent with lightning-cause fires and the species intended to regenerate (e.g., pine and oak).</p>

<p>used where appropriate.</p>		
<p><b>6.5.d</b> The transportation system, including design and placement of permanent and temporary haul roads, skid trails, recreational trails, water crossings and landings, is designed, constructed, maintained, and/or reconstructed to reduce short and long-term environmental impacts, habitat fragmentation, soil and water disturbance and cumulative adverse effects, while allowing for customary uses and use rights. This includes:</p> <ul style="list-style-type: none"> <li>• access to all roads and trails (temporary and permanent), including recreational trails, and off-road travel, is controlled, as possible, to minimize ecological impacts;</li> <li>• road density is minimized;</li> <li>• erosion is minimized;</li> <li>• sediment discharge to streams is minimized;</li> <li>• there is free upstream and downstream passage for aquatic organisms;</li> <li>• impacts of transportation systems on wildlife habitat and migration corridors are minimized;</li> <li>• area converted to roads, landings and skid trails is minimized;</li> <li>• habitat fragmentation is minimized;</li> <li>• unneeded roads are closed and rehabilitated.</li> </ul>	<p>C</p>	<p>Auditors found that road design, construction, and maintenance were of high quality. Recreational trails also were well planned and constructed. On forests where shale gas drilling has been active, managers have worked with oil and gas companies to upgrade roads to accommodate the increased traffic of heavy vehicles. Sensitive roads viewed during site visits are gated or had been closed. District resource specialists described maintenance planning that looks 2-3 years in advance. State funding (primarily due to oil and gas revenue) for transportation infrastructure and maintenance is adequate. Central Office staff said that an additional \$10 million was appropriated this year for infrastructure needs.</p> <p>DCNR sends road maintenance staff to the Penn State Dirt and Gravel BMP training program. The <a href="#">Penn State Center for Dirt and Gravel Road Studies</a> specializes in education, outreach, research, and project oversight related to the Environmentally Sensitive Maintenance of unpaved roads and trails.</p> <p>Stream-crossing upgrades were observed on Buchanan and Michaux State Forest and were appropriately sized given stream flows and the presence of aquatic organisms. Landings and other temporary infrastructure are planned so that density can be controlled as confirmed in field observations and reviews of harvest plans.</p>
<p><b>6.5.e.1</b> In consultation with appropriate expertise, the forest owner or manager implements written <b>Streamside Management Zone (SMZ) buffer</b> management guidelines that are adequate for preventing environmental impact, and include protecting and restoring water quality, hydrologic conditions in rivers and stream corridors, wetlands, vernal pools, seeps and springs, lake and pond shorelines, and other hydrologically sensitive areas. The guidelines include vegetative buffer widths and protection measures that are acceptable within those buffers.</p> <p>In the Appalachia, Ozark-Ouachita, Southeast,</p>	<p>C</p>	<p>Chapter II of the Silviculture Manual (undated), Water Resources, presents clear guidelines for buffers to protect rivers and streams, vernal pools and seeps, and shorelines of lakes and ponds. The manual lists buffers for wetlands being under development. Except for the lack of guidelines for wetlands, standards are quite specific, with different buffer requirements for a variety of water resources, e.g. wilderness trout streams, wild rivers, scenic rivers, high quality perennial streams, vernal pools, and spring seeps. In 2010, the Pennsylvania Department of Environmental Protection (DEP) published <a href="#">Riparian Forest Buffer Rules and Regulations</a> that outlines requirement for the restoration and protection of buffers.</p>

<p>Mississippi Alluvial Valley, Southwest, Rocky Mountain, and Pacific Coast regions, there are requirements for minimum SMZ widths and explicit limitations on the activities that can occur within those SMZs. These are outlined as requirements in Appendix E.</p>		<p>Implementation of DCNR and DEP buffer requirements on observed tracts listed in 2014 site notes was systematic.</p>
<p><b>6.5.e.2</b> Minor variations from the stated minimum SMZ widths and layout for specific stream segments, wetlands and other water bodies are permitted in limited circumstances, provided the forest owner or manager demonstrates that the alternative configuration maintains the overall extent of the buffers and provides equivalent or greater environmental protection than FSC-US regional requirements for those stream segments, water quality, and aquatic species, based on site-specific conditions and the best available information. The forest owner or manager develops a written set of supporting information including a description of the riparian habitats and species addressed in the alternative configuration. The CB must verify that the variations meet these requirements, based on the input of an independent expert in aquatic ecology or closely related field.</p>	<p>NA</p>	<p>No such variations were evident or presented by BOF or audit team.</p>
<p><b>6.5.f</b> Stream and wetland crossings are avoided when possible. Unavoidable crossings are located and constructed to minimize impacts on water quality, hydrology, and fragmentation of <b>aquatic habitat</b>. Crossings do not impede the movement of aquatic species. Temporary crossings are restored to original hydrological conditions when operations are finished.</p>	<p>C</p>	<p>Such crossings on state forestlands must be permitted by the Department of Environmental Protection.</p> <p>During 2014 site visits, the auditors observed where temporary stream crossings for timber harvests and motorcycle Enduro events had been permitted. The crossing had been restored and no damage was evident. The PNDI review required for site disturbing activities (see Tuscarora 2014 Enduro PNDI checklist as an example) includes a review of the considerations items cited in the indicator.</p>
<p><b>6.5.g</b> Recreation use on the FMU is managed to avoid negative impacts to soils, water, plants, wildlife and wildlife habitats.</p>	<p>C</p>	<p>Recreation on state forests is a major activity and an important program focus. Auditors were exposed to numerous examples where recreational use has been altered to avoid negative impacts to important resources such as soil and water. Examples of recent modifications to protect resources include a policy for consulting the PDM</p>

		<p>database before allowing motorbike races, organizing volunteers for trail stabilization projects on the Forbes S Forest, installation of a wetland boardwalk to protect fragile plants in a bog, use of web cams so people can view eagles from remote locations rather than disturb nests, use of fences and walking paths in sensitive areas, etc.</p>
<p><b>6.5.h</b> Grazing by domesticated animals is controlled to protect in-stream habitats and water quality, the species composition and viability of the riparian vegetation, and the banks of the stream channel from erosion.</p>	<p>C</p>	<p>There is no provision for grazing on state forest lands. No unauthorized grazing was reported or detected.</p>
<p><b>6.6. Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.</b></p>	<p>NE</p>	
<p><b>6.7. Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.</b></p>	<p>C</p>	
<p><b>6.7.a</b> The forest owner or manager, and employees and contractors, have the equipment and training necessary to respond to hazardous spills</p>	<p>C</p>	<p>DCNR employees receive extensive training in numerous aspects of safety and hazardous materials (training records examined). Logging contractors are required to complete SFI-sponsored training.</p> <p>The Department of Environmental Protection (DEP) is responsible for implementing Pennsylvania laws relating to hazardous materials spills. DEP's authorities relative to emergency response to hazardous materials are delineated in the Hazardous Site Cleanup Act (HSCA). The HSCA legislation requires DEP to "provide for emergency response capability for spills, accidents and other releases of hazardous substances and contaminants." The law gives DEP the authority to take any action that it deems necessary or appropriate to protect public health, safety or welfare or the environment from</p>

		<p>releases or threats of releases of hazardous materials. In each of DEP's six regional offices a Regional Emergency Response Program Manager (ERPM) leads an emergency response program. Response teams consist of 10 to 17 members depending on the region. The teams are trained in personal protection and safety, environmental sampling, containment and control, and have authority to issue field orders to enforce DEP regulations.</p> <p>Interviews with staff and loggers in 2014 indicate that they have training on responding to spills. Logging sites examined had spill kits readily available and accessible onsite.</p>
<p><b>6.7.b</b> In the event of a hazardous material spill, the forest owner or manager immediately contains the material and engages qualified personnel to perform the appropriate removal and remediation, as required by applicable law and regulations.</p>	<p>C</p>	<p>No spills were observed during the audit. Machinery was inspected on three harvest sites and found to be free of spills. On one active logging operation, DCNR staff explained how they inspect equipment and that having a spill kit on site is a contractual requirement. On another the logging contractor had a spill kit on site.</p>
<p><b>6.7.c.</b> Hazardous materials and fuels are stored in leak-proof containers in designated storage areas, that are outside of riparian management zones and away from other ecological sensitive features, until they are used or transported to an approved off-site location for disposal. There is no evidence of persistent fluid leaks from equipment or of recent groundwater or surface water contamination.</p>	<p>C</p>	<p>DCNR <a href="#">hazardous materials storage procedures</a> address these requirements (website accessed Sep 2014). Auditors inspected pesticide storage at the Forbes State Forest. Hazardous materials were properly contained in a locked cabinet as observed on harvest sites. Forester explained that they do not purchase more product than typically needed in a season. Quantities of stored materials were small (4-5 one gallon or less containers). Equipment inspected in 2014 was free of persistent leaks; loggers interviewed indicated a regular equipment maintenance program.</p>
<p><b>6.8. Use of biological control agents shall be documented, minimized, monitored, and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.</b></p>	<p>C</p>	
<p><b>6.8.a</b> Use of <i>biological control agents</i> are used only as part of a pest management strategy for the control of invasive plants, <i>pathogens</i>, insects, or other animals when other pest control methods are ineffective, or are expected to be ineffective. Such use is contingent upon peer-reviewed scientific evidence that the agents in question are non-invasive and are safe for native species.</p>	<p>C</p>	<p>Use of biological control agents has not been widespread except for the control of gypsy moth, where DCNR's policy is to use only <i>Bacillus thuringiensis</i> (Bt), a well-researched and often used treatment as confirmed in the 2013 recertification.</p> <p>DCNR is using biological control for Mile-a-minute, Hemlock woolly adelgid (HWA), and Ailanthus. This is being done according to accepted research or application protocols</p>

		(e.g., USDA APHIS, university research).
<b>6.8.b</b> If biological control agents are used, they are applied by trained workers using proper equipment.	C	Commonly applied controls, such as Bt, are applied by licensed contractors using specialized equipment. Others such as those for HWA, are applied through research programs according to accepted protocols.
<b>6.8.c</b> If biological control agents are used, their use shall be documented, monitored and strictly controlled in accordance with state and national laws and internationally accepted scientific protocols. A written plan will be developed and implemented justifying such use, describing the risks, specifying the precautions workers will employ to avoid or minimize such risks, and describing how potential impacts will be monitored.	C	Much of the use and monitoring of biological control is being done by university researchers according to state and national laws based on international protocols. These studies are documented. Descriptions of biological control programs and research being applied on BOF lands are widely available on state websites.
<b>6.8.d</b> Genetically Modified Organisms (GMOs) are not used for any purpose	C	No evidence was found that GMOs have been used for any purpose on state forest lands. DCNR personnel are aware of this FSC standard and stated that GMOs have not been used.
<b>6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.</b>	C	
<b>6.9.a</b> The use of <i>exotic species</i> is contingent on the availability of credible scientific data indicating that any such species is non-invasive and its application does not pose a risk to native biodiversity.	C	<p>DCNR has an 18-page document titled, "Planting and Seeding Guidelines on State Forestlands". It is an outdated document, but appears to be recent judging from some of the recommendations. The document presents abundant cautions for seed mixes and nursery stock, especially non-woody plants used to stabilize bare soils and in food plots for wildlife. Exotic species are used almost exclusively for erosion control or as food for wildlife, with care taken to prevent invasive species.</p> <p>Norway spruce is one exotic tree that has been planted and is being considered as a possible replacement for hemlock trees lost to disease. The current recommendation, however, is to avoid further use of this species.</p> <p>Norway spruce is also a possible cover type due to CCC plantings in the 1930s. These stands are rarely entered for management other than a thinning and only when market permit a profitable or break-even sale. Native species are allowed to persist in the understory and are not controlled in any way. The use of this species is currently on well less than 1% of the FMU. Norway spruce does not regenerate</p>

		well on sites where it has been planted and rarely offsite. Plantings throughout the Northeast, Appalachia and the Lake States have shown that it is not invasive and does not pose a risk to native species.
<b>6.9.b</b> If exotic species are used, their provenance and the location of their use are documented, and their ecological effects are actively monitored.	C	Written guidelines mentioned above address the need to document both provenance and location of use. Each district submits, annually, a detailed list of all plantings of the district. Botanists in Ecological Services Section are actively involved in determining ecological effects.
<b>6.9.c</b> The forest owner or manager shall take timely action to curtail or significantly reduce any adverse impacts resulting from their use of exotic species	C	DCMR's extensive program for monitoring and controlling invasive species should assure that any adverse impact from planting exotic species is addressed.
<b>6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:</b> 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.	NE	
<b>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 management, and the means of achieving them, shall clearly stated.</b>		
<b>Principle #8: Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.</b>		
<b>8.1</b> The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations, as well as, the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.	NE	
<b>8.2.</b> Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators: a) yield of all forest products harvested, b) growth rates, regeneration, and condition of the forest, c) composition and observed changes in the flora and fauna, d) environmental and social impacts of harvesting and other operations, and e) cost, productivity, and efficiency of forest management.	C	

<p><b>8.2.a.1</b> For all commercially harvested products, an inventory system is maintained. The inventory system includes at a minimum: a) species, b) volumes, c) stocking, d) regeneration, and e) stand and forest composition and structure; and f) timber quality.</p>	<p>C</p>	<p>Monitoring activities are carried out on a number of levels. Broadly, all projects are reviewed spatially in the FIMS system (DCNR_BOF_FIMS_Planning_Monitoring.docx). Certain activities require detailed monitoring efforts, such as with silvicultural activities, herbicide projects, road or bridge contracts, gas activities, and are monitored by BOF staff on a regular basis. Some special resource management plans incorporate monitoring to evaluate special resource values and results of management practices or natural succession of environmental factors. A few specific programs:</p> <ul style="list-style-type: none"> <li>- Growth rates, natural regeneration and general conditions are monitored through BOF's Continuous Forest Inventory data.</li> <li>- Timber harvests are inspected throughout the contract term and are followed up at intervals after sale completion by forester to monitor management objectives.</li> <li>- Landscape Exams are conducted to evaluate changes in stands and across landscapes over 15 year intervals. These exams consider ecological, geologic, and cultural values of the forest (BOF_Landscape_Planning_manual.pdf).</li> <li>- Forest Pest Management conducts annual forest health surveys to monitor defoliation and mortality across the landscape.</li> <li>- BOF also assesses regeneration stocking in even-aged harvests to provide an immediate determination of stocking in stands 20-24 years age.</li> <li>- Vegetation conditions are monitored before and after prescribed burns through a formal monitoring process to ensure desired conditions are met and to assess prescribed fire as an effective tool for forest management.</li> </ul>
<p><b>8.2.a.2</b> Significant, unanticipated removal or loss or increased vulnerability of forest resources is monitored and recorded. Recorded information shall include date and location of occurrence, description of disturbance, extent and severity of loss, and may be both quantitative and qualitative.</p>	<p>C</p>	<p>The most common losses being tracked by DCNR involve infestations of invasive species, most recently gypsy moth, hemlock woolly adelgid and emerald ash borer. These concerns are addressed in detailed action plans that prioritize response areas and silvicultural strategies. Wind, fire, hail and other events are also tracked. Stand level</p>

		<p>occurrences and salvage operations are tracked in the FI database.</p> <p>No unanticipated removals were reported during the 20 audit.</p>
<p><b>8.2.b</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.</p>	<p>C</p>	<p>Annual harvest for 2013-14 was 47 million board feet of timber and 2,785,500 cubic feet of pulpwood. Details are available in an annual Forest Products Statistical Report.</p>
<p><b>8.2.c</b> The forest owner or manager periodically obtains data needed to monitor presence on the FMU of:</p> <ol style="list-style-type: none"> <li>1) Rare, threatened and endangered species and/or their <i>habitats</i>;</li> <li>2) Common and rare plant communities and/or habitat;</li> <li>3) Location, presence and abundance of invasive species;</li> <li>4) Condition of protected areas, set-asides and buffer zones;</li> <li>5) High Conservation Value Forests (see Criterion 9.4).</li> </ol>	<p>C</p>	<p>Wildlife Biologists and Botanists from Ecological Services Section routinely monitor RTE or common wildlife and plant communities on state forestland while conducting surveys and collecting data. As part of the PNDI review process, these specialists will also monitor projects before and after activities to evaluate potential positive or negative impacts to species of concern. RTE species are monitored at least every 25 years (standard state-wide procedure, but more often on state forestland) to assess the information known about particular species or populations. The Deer Management Assistance Program (DMAP) also monitors vegetation on state forestland to assess deer impacts to forest communities and evaluate areas to be included in program (<a href="http://www.dcnr.state.pa.us/forestry/deer/dmap/index.m">http://www.dcnr.state.pa.us/forestry/deer/dmap/index.m</a>).</p> <p>The <a href="#">Pennsylvania Natural Heritage Program</a> tracks RTE species, habitats and communities. Monitoring and assessment of rare and threatened animals is done in partnership with the Pennsylvania Fish and Boat Commission and the Game Commission.</p> <p>Location, presence and abundance of invasive species are currently tracked at both the district and central office levels. Districts keep track of locations and treat areas internally. A forester in each district is charged with monitoring insect and plant pests within the district. Populations are noted in landscape exams and also through the FME chemical tracking database. In some cases large populations are contracted out for control. In addition</p>

		<p>central office staff keeps tabs on populations of invasive species and a tracking database is being developed and will be incorporated into the centralized FIMS. For insect pests, the division of forest pest management conducts surveys and maps threats statewide.</p> <p>Protected areas, set-asides and buffer zones are identified in the SFRMP land zoning system and are regularly updated.</p> <p>Each HCVF type has a separate monitoring protocol as identified in the <a href="#">HCVF Plan</a>.</p> <p>As part of the Shale Gas Monitoring Program (<a href="http://www.dcnr.state.pa.us/forestry/NaturalGas/monitoringreport/index.htm">http://www.dcnr.state.pa.us/forestry/NaturalGas/monitoringreport/index.htm</a>), a botanist and wildlife biologist continue their efforts to monitor the impacts of natural gas development on state forestland. In cases where a non-native species is selected for vegetative cover, BOF monitors for offsite migration and to assess the value of this species on state forestland. In addition, there are partnerships with organizations such as the PA Natural Heritage Program, Western PA Conservancy, and The Nature Conservancy to monitor and develop plans for areas or species of special consideration.</p>
<p><b>8.2.d.1</b> 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.</p>	<p>C</p>	<p>All projects are reviewed spatially in the FIMS system. Certain activities require detailed monitoring efforts such as silvicultural activities, herbicide projects, prescribed burning, road or bridge contracts, gas activities etc. All site disturbing activities require completion of a State Forest Environmental Review. During 2014 field stops, wildlife biologists said that population counts are organized to evaluate the success of various management techniques such as the viewed habitat work for woodcock and golden-winged warblers. They said the proposed Bat HCP includes monitoring of timber harvest effects for the next 30 years.</p> <p>Timber sales are inspected throughout the contract term and are followed up at intervals after sale completion by the foresters to monitor management goals. Any issues that need addressed are confronted and improvements implemented.</p>

<p><b>8.2.d.2</b> A monitoring program is in place to assess the condition and environmental impacts of the forest-road system.</p>	<p>C</p>	<p>DCNR conducts a regular forest road and trail surveys, and survey (with results are stored as in a GIS layer), studies ATV and motorcycle impacts (as observed for the Enduro tracks on the Tuscarora and Michaux Districts), and monitors trucking impacts related to O&amp;G development and timber harvests. DCNR also cooperates with PennDC on evaluating the condition of roads and bridges.</p> <p>During 2014 site visits, district road specialists described how road maintenance and infrastructure work is planned 2-3 years in advance. Road maintenance funding has been adequate and a recent \$45 million infrastructure allotment has enabled a number of more ambitious projects, such as bridge replacements.</p>
<p><b>8.2.d.3</b> The landowner or manager monitors relevant socio-economic issues (see Indicator 4.4.a), including the social impacts of harvesting, participation in local economic opportunities (see Indicator 4.1.g), the creation and/or maintenance of quality job opportunities (see Indicator 4.1.b), and local purchasing opportunities (see Indicator 4.1.e).</p>	<p>C</p>	<p>Social monitoring occurs at a variety of levels in relation to state forest management activities. BOF is in the process of revising the State Forest Resource Management Plan. As part of those efforts, BOF developed a public survey geared towards the public's use of state forest resources and opinions on state forest management activities. The results are being used to help steer the development of the revised Plan as well as track the public's opinions and attitudes towards state forest management. The Plan revision will also involve public meetings and input opportunities after the draft is formulated and reviewed internally and with advisory committees.</p> <p>BOF has established a number of Advisory committees to address different focus areas. These committees are made up of agency professionals, university professionals, industry, business, and forest users and are listed as follows: Natural Gas Advisory Committee, Recreation Advisory Committee, Ecosystem Management Advisory Committee, and the Silviculture/Timber Advisory Committee. The BOF also participates in DCNR's Conservation and Natural Resources Advisory Committee, the Snowmobile ATV Advisory Committee, and the Pine Creek Rail Trail Advisory Committee.</p> <p>The 2014 Shale Gas Monitoring Report</p>

		<p>(<a href="http://www.dcnr.state.pa.us/cs/groups/public/document/document/dcnr_20029147.pdf">http://www.dcnr.state.pa.us/cs/groups/public/document/document/dcnr_20029147.pdf</a>) also monitors the environmental and social impacts from gas development on state forestland. BOF identified several 'monitoring values' to monitor changes of these values as a result of gas development that could impact environmental or social values. For social monitoring, it including two focus groups in selected communities to gather input on the impacts on local communities and comment cards to visitors on how their experience may have changed due to gas development.</p> <p>Environmental impact monitoring is generally conducted at the project level as part of the PNDI review process. In addition, the Continuous Forest Inventory provides a mechanism to monitor change of environmental impacts on forest ecosystems across the state forest system. Many of the processes to monitor environmental impacts are described in the previous two questions.</p>
<p><b>8.2.d.4</b> Stakeholder responses to management activities are monitored and recorded as necessary.</p>	<p>C</p>	<p>SFRMP plan appendices list feedback from stakeholders. Public input survey forms are available on the DCNR website and in the field at kiosks, as observed near recreational trails.</p> <p>Current SFRMP plan appendices list feedback from stakeholders. Bureau of Forestry has started the planning process to revise the State Forest Resource Management Plan. The Bureau developed a survey to gather public input on the status of state forest lands. The survey was available online through October 31, 2013. Staff in the Planning Section explained that results from the survey are being analyzed. A report is expected in the next few months. Additional hearings and stakeholder input meeting are planned for 2015.</p> <p>During opening meetings at District offices for the 2014 sites visits, managers described a variety of stakeholder response tools including mail-in cards, email and web surveys. The most popular approach in recent years has been comments on Facebook. The Tuscarora State Forester was especially pleased with stakeholder responses to its Facebook site. The District Forester explained that his sta</p>

		<p>can update Facebook on their own (per DCNR guidelines) whereas the official Internet site is more formal and not easily managed. Facebook provides a number of sophisticated reporting-analysis tools.</p>
<p><b>8.2.d.5</b> Where sites of cultural significance exist, the opportunity to jointly monitor sites of cultural significance is offered to tribal representatives (see Principle 3).</p>	<p>C</p>	<p>DCNR maintains a tribal contact list and regularly invites input, but they have not received any tribal responses. CRGIS is a map-based inventory of the historic and archaeological sites and surveys stored in the files of the Bureau for Historic Preservation (BHP). The Pennsylvania Historical and Museum Commission (PHMC) has been collecting information concerning archaeological sites and historic resources for the greater part of a century. Currently there are about 23,000 archaeological sites and 129,503 historic properties recorded.</p> <p>One of the 2014 site visits included an 18<sup>th</sup>-19<sup>th</sup> century pioneer cemetery. It was maintained in cooperation with local historical society whose volunteers do most of the mowing and other tending. Considering the importance PA during early colonial times (including the French and Indian War, Revolutionary War and Civil War), cultural preservation and interpretation is of great significance according to the foresters interviewed during site visits. They said cooperation with other entities is essential considering the scope of cultural resources.</p>
<p><b>8.2.e</b> The forest owner or manager monitors the costs and revenues of management in order to assess productivity and efficiency.</p>	<p>C</p>	<p>BOF is continuously looking for ways to improve efficiency and productivity at various levels. BOF encourages open communication among staff to express ideas or issues or understanding any productivity/efficiency gaps. Central office program areas routinely perform field visits with the districts to monitor effectiveness of programs in the field and address any issues. These efforts demonstrate a feedback loop in identifying and addressing productivity and efficiency issues for state forest management activities. After action reviews are performed after large incidents to evaluate the effectiveness of the incident management team and improve efficiency in future incidents. Many program areas require routine reporting on activities or incidents, allowing them to monitor progress, identify issues, and improve processes for productivity and efficiency.</p> <p>BOF also monitors productivity through implementation of the Harvest Allocation Model (referenced elsewhere in the</p>

		document), its annual timber products output report, m of road or trail projects completed with allocated special funding (Dirt and Gravel Road funding, Liquid Fuels fund Snowmobile and ATV funding), and other measures.
<b>8.3 Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody."</b>	C	
<b>8.3.a</b> When forest products are being sold as FSC-certified, the forest owner or manager has a system that prevents mixing of FSC-certified and non-certified forest products prior to the point of sale, with accompanying documentation to enable the tracing of the harvested material from each harvested product from its origin to the point of sale.	C	Refer to COC indicators for FMEs.
<b>8.3.b</b> The forest owner or manager maintains documentation to enable the tracing of the harvested material from each harvested product from its origin to the point of sale.	C	Refer to COC indicators for FMEs.
<b>8.4 The results of monitoring shall be incorporated into the implementation and revision of the management plan.</b>	NE	
<b>8.5 While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.</b>	NE	
<p><b>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.</b></p> <p><b>High Conservation Value Forests are those that possess one or more of the following attributes:</b></p> <ul style="list-style-type: none"> <li>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</li> <li>b) Forest areas that are in or contain rare, threatened or endangered ecosystems</li> <li>c) Forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control)</li> <li>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).</li> </ul>		
<b>9.1 Assessment to determine the presence of the</b>	NE	

<p><b>attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.</b></p>		
<p><b>9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.</b></p>	<p>NE</p>	
<p><b>9.3 The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.</b></p>	<p>NE</p>	
<p><b>9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.</b></p>	<p>C</p>	
<p><b>9.4.a</b> The forest owner or manager monitors, or participates in a program to annually monitor, the status of the specific HCV attributes, including the effectiveness of the measures employed for their maintenance or enhancement. The monitoring program is designed and implemented consistent with the requirements of Principle 8.</p>	<p>C</p>	<p>BOF monitors HCVFs on many levels. Forest managers are often working in the vicinity of or directly within these areas on a daily basis and monitor informally for any noticeable changes. BOF’s geospatial system (FIMS) is also a very effective tool in monitoring any changes that may occur in HCVFs over time. Any management projects (timber, gas development, trail work, etc.) conducted in forests is checked against a GIS database to look for any potential impacts to HCVFs (whether positive or negative) as well as other features. Many of the areas fall within the continuous forest inventory (CFI) and many others such as wild plant sanctuaries and ecological focus areas have regular monitoring by the Ecological Services Section.</p> <p>HCV1.1 Wild Plant Sanctuaries – FIMS, Research Agreements, annual eco services monitoring of 20 plant sanctuaries per year  HCV1.2 Focus Areas – FIMS, Conservation Partners, annual eco services monitoring  HCV2.1 Wild and Natural Areas – FIMS, Research Agreements, CFI  HCV 2.2 Wild and Natural Areas – FIMS, Research Agreements, CFI  HCV 3.1 Old Growth – FIMS, Research Agreements, CFI</p>

		<p>HCV 3.2 ROS Roadless Areas – FIMS</p> <p>HCV 3.3 RTE Ecosystems – FIMS, Conservation Partners</p> <p>HCV 4.1 SWPZ &amp; GWPZ – FIMSe, District relationship with municipal authorities</p> <p>HCV 4.2 SWPZ &amp; GWPZ – FIMS, District relationship with municipal authorities</p> <p>HCV 4.3 Coastal Floodplain – FIMS, Research Agreement, District monitoring, CFI</p> <p>HCV 6.1 Archeological – FIMS, Research Agreements, District monitoring</p> <p>HCV 6.2 Archeological – FIMS, Research Agreements, District monitoring</p>
<p><b>9.4.b</b> When monitoring results indicate increasing risk to a specific HCV attribute, the forest owner/manager re-evaluates the measures taken to maintain or enhance that attribute, and adjusts the management measures in an effort to reverse the trend.</p>	<p>C</p>	<p>Three specific examples of conformity were observed during 2014 site visits:</p> <ul style="list-style-type: none"> <li>Monitoring of a federally listed plant (bulrush) in a plant sanctuary indicated that shade from encroaching trees was causing a population decline. DCNR and Penn State responded with a research project to remove trees and measure the response of the target plants.</li> <li>Natural Area monitoring indicated loss of hemlock due to woolly adelgid infestations. High priority sites such as critical trout streams were identified and pesticide treatments to protect hemlocks have been focused there.</li> <li>Monitoring of bat hibernacula indicated serious population declines due to white nose syndrome. Simple seasonal timber cutting restrictions don't appear to be helping much, and so DCNR and partners in the state are developing a more comprehensive Bat HCP that looks at long-term effects across the landscape.</li> </ul>

<p style="text-align: center;"><b>APPENDICES</b></p>		
<p><b>APPENDIX C: REGIONAL LIMITS AND OTHER GUIDELINES ON OPENING SIZES – Indicator 6.3.g.1 APPALACHIA REGION</b></p> <p>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</p>		
<p><b>6.3.g.1.a</b> When even-aged silviculture (e.g., seed tree, regular or irregular shelterwood), or deferment cutting is employed, live trees and native vegetation are retained and opening sizes</p>	<p>C</p>	<p>BOF practices retention on all harvest sites. Silvicultural practices are consistent with the indicator's guidance.</p>

<p>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.</p>		
<p><b>6.3.g.1.b</b> When uneven age silvicultural techniques are used (e.g., individual tree selection or group selection), canopy openings are less than 2.5 acres.</p>	C	DCNR seldom uses uneven-aged silvicultural techniques other than in buffer strips, which are maintained for continuous canopy cover.

**APPENDIX E: STREAMSIDE MANAGEMENT ZONE (SMZ) REGIONAL REQUIREMENTS – Indicator 6.5.e**

This Appendix addresses regionally explicit requirements for Indicator 6.5.e and includes SMZ widths and activity limits within those SMZs for the Appalachia, Ozark-Ouachita, Southeast, Mississippi Alluvial Valley, Southwest, Rocky Mountain and Pacific Coast regions. The forest owner or manager will be evaluated based on the sub-indicators within their specific region, below.

**APPALACHIA REGION – The SMZ is designed to allow harvesting and provide flexibility for silvicultural management.**

<p><b>6.5.e.1.a</b> All <i>perennial streams</i> have buffers (streamside management zones, SMZs) that include an inner SMZ and an outer SMZ. SMZ sizes are minimum widths that are likely to provide adequate riparian habitat and prevent siltation. If functional riparian habitat and minimal siltation are not achieved by SMZs of these dimensions, wider SMZs are needed.</p>	C	Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007
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**Table 6.5.f (APP only) Widths of inner and outer Streamside Management Zones. Widths of outer SMZs are applicable where data do not support narrower widths\***

Stream Zone Type	SLOPE CATAGORY				
	1-10%	11-20%	21-30%	31-40%	41%
<b>Inner Zone (Perennial)</b>	25'	25'	25'	25'	25'
<b>Outer Zone (Perennial)</b>	55'	75'	105'	110'	140'
<b>Total For Perennial</b>	80'	100'	130'	135'	165'
<b>Zone For Intermittent</b>	40'	50'	60'	70'	80'

\*All distances are in feet -slope distance and are measured from the high water mark.

<p><b>6.5.e.1.b</b> (APP only) The inner SMZ for <i>non-high-quality waters</i> (see state or local listings describing the highest quality waters in the state or region) extends 25 feet from the high water mark. Single-tree selection or small group selection (2-5 trees) is allowed in the inner SMZ, provided that the</p>	C	Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007.
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<p>integrity of the stream bank is maintained and canopy reduction does not exceed 10 percent (90 percent canopy maintenance). Trees are directionally felled away from streams. Note: The inner SMZ is designed as a virtual no-harvest zone, while allowing the removal of selected high-value trees.</p>		
<p><b>6.5.e.1.c</b> (APP only) Along perennial streams that are designated as <i>high-quality waters</i> (see state or local listings describing the highest quality waters in the state or region), no harvesting is allowed in the inner SMZ (25 feet from the high water mark), except for the removal of wind-thrown trees. Stream restoration is allowed if a written restoration plan provides a rational justification and if the plan follows local and regional restoration plans.</p>	C	Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007.
<p><b>6.5.e.1.d</b> (APP only) Outer SMZs, outside and in addition to inner SMZs, are established for all intermittent, and perennial streams, as well as other waters. When the necessary information is available, the width of a stream management zone is based on the landform, erodibility of the soil, stability of the slope, and stability of the stream channel as necessary to protect water quality and repair habitat. When such specific information is not available, the width of streamside management zone is calculated according to Table 6.5.f</p>	C	Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007.
<p><b>6.5.e.1.e</b> (APP only) Harvesting in outer SMZs is limited to single-tree and group selection, while maintaining at least 50 percent of the overstory. Roads, skid trails, landings, and other similar silviculturally disturbed areas are constructed outside of the outer SMZ, except for designated stream crossings or when placement of disturbance-prone activities outside of the SMZ would result in more environmental disturbance than placing such activities within the SMZ. Exceptions may be made for stream restoration.</p>	C	Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007.
<p><b>6.5.e.1.f</b> (APP only) The entire SMZ of intermittent streams is managed as an outer buffer zone.</p>	C	Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007.

<p><b>6.5.e.1.g</b> (APP only) The activities of forest management do not result in observable siltation of intermittent streams. The activities of forest management do not result in observable siltation of intermittent streams.</p>	<p>C</p>	<p>Met or exceeded in PA DCNR Aquatic Habitat Buffer Guidelines, Effective January 1, 2007.</p>
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### Appendix 6 – Chain of Custody Indicators for FMEs

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

REQUIREMENT	C/ NC	COMMENT/CAR
<b>1. Quality Management</b>		
<p>1.1 The organization shall appoint a management representative as having overall responsibility and authority for the organization’s compliance with all applicable requirements of this standard.</p>	<p>C</p>	<p>The implementation of chain-of-custody procedures is the responsibility of the Silviculture Section, Scott A. Miller, Chief.</p>
<p>1.2 The FME shall maintain complete records of all FSC-related COC activities, including sales and training, for at least 5 years.</p>	<p>C</p>	<p>BOK maintains records of COC activities for at least 7 years.</p>
<p>1.3 The FME shall define its forest gate(s) (check all that apply):  <i>The forest gate is defined as the point where the change in ownership of the certified-forest product occurs.</i></p>	<p>C</p>	<p><input checked="" type="checkbox"/> <b>Stump</b>  <i>Stumpage sale or sales of standing timber; transfer of ownership of certified-forest product occurs upon harvest.</i></p> <p><input type="checkbox"/> <b>On-site concentration yard</b>  <i>Transfer of ownership of certified-product occurs at concentration yard under control of FME.</i></p> <p><input type="checkbox"/> <b>Off-site Mill/Log Yard</b>  <i>Transfer of ownership occurs when certified-product is unloaded at purchaser’s facility.</i></p> <p><input type="checkbox"/> <b>Auction house/ Brokerage</b>  <i>Transfer of ownership occurs at a government-run or private auction house/ brokerage.</i></p> <p><input checked="" type="checkbox"/> <b>Lump-sum sale/ Per Unit/ Pre-Paid Agreement</b>  <i>A timber sale in which the buyer and seller agree on a total price for marked standing trees or for trees within a defined area before the wood is removed — the timber is usually paid for before harvesting begins. Similar to a per-unit sale.</i></p> <p><input type="checkbox"/> <b>Log landing</b>  <i>Transfer of ownership of certified-product occurs at landing/yarding areas.</i></p> <p><input type="checkbox"/> <b>Other</b> (Please describe):</p>

<p>1.4 The FME shall have sufficient control over its forest gate(s) to ensure that there is no risk of mixing of FSC-certified forest products covered by the scope of the FM/COC certificate with forest products from outside of the scope prior to the transfer of ownership.</p>	<p>C</p>	<p>As all timber is purchased before harvest begins, the risk of mixing with certified and non-certified material is extremely low and would not be the responsibility of BOF.</p>
<p>1.5 The FME and its contractors shall not process FSC-certified material prior to transfer of ownership at the forest gate without conforming to applicable chain of custody requirements. <i>NOTE: This does not apply to log cutting or de-barking units, small portable sawmills or on-site processing of chips/biomass originating from the FMU under evaluation.</i></p>	<p>C</p>	<p>No processing takes place prior to the transfer of ownership.</p>
<p><b>2. Product Control, Sales and Delivery</b></p>		
<p>2.1. Products from the certified forest area shall be identifiable as certified at the forest gate(s).</p>	<p>C</p>	<p>Contracts are structured such that harvest on non-certified lands includes a phrase “non-FSC certified” and no certificate code is included. As such, BOF controls the sales of certified timber from the certified FMU through providing certified sales documentation as described in its COC procedures.</p>
<p>2.2 The FME shall maintain records of quantities/volumes of FSC-certified product(s).</p>	<p>C</p>	<p>BOF is required to keep records on volumes and values sold through the Administrative Code of 1929. Volumes and values are determined through standard procedures established in the Bureau of Forestry Silviculture Manual. Records of harvest volume were shown for the certified FMU for purposes of evaluating FSC-US Criteria 5.6 and 8.2.</p>
<p>2.3. The FME shall ensure that all sales documents issued for outputs sold with FSC claims include the following information:</p> <ul style="list-style-type: none"> <li>a) name and contact details of the organization;</li> <li>b) name and address of the customer;</li> <li>c) date when the document was issued;</li> <li>d) description of the product;</li> <li>e) quantity of the products sold;</li> <li>f) the organization’s FSC Forest Management (FM/COC) or FSC Controlled Wood (CW/FM) code;</li> <li>g) clear indication of the FSC claim for each product item or the total products as follows: <ul style="list-style-type: none"> <li>i. the claim “FSC 100%” for products from FSC 100% product groups;</li> <li>ii. the claim “FSC Controlled Wood” for products from FSC Controlled Wood product groups.</li> </ul> </li> <li>h) If separate transport documents are issued, information sufficient to link the sales document and related transport documentation to each other.</li> </ul>	<p>NC</p>	<p>All information a)-g) is included on timber sale contracts. Contract templates include all information. However, on timber sale 04-2011BC04 (8100-FM-FR0113 10/10), BOF’s previous certificate code is included, which is no longer valid.</p> <p>On timber sale 04-2013BC01, all information is correct.</p> <p>Please see Minor CAR 2014.2</p>

<p>2.4 The FME shall include the same information as required in 2.3 in the related delivery documentation, if the sales document (or copy of it) is not included with the shipment of the product. <b>Note: 2.3 and 2.4 above are based on FSC-STD-40-004 V2-1 Clause 6.1.1 and 6.1.2</b></p>		
<p>2.5 When the FME has demonstrated it is not able to include the required FSC claim as specified above in 6.1.1 and 6.1.2 in sales and delivery documents due to space constraints, through an exception, SCS can approve the required information to be provided through supplementary evidence (e.g. supplementary letters, a link to the own company’s webpage with verifiable product information). This practice is only acceptable when SCS is satisfied that the supplementary method proposed by the FME complies with the following criteria:</p> <ul style="list-style-type: none"> <li>a) There is no risk that the customer will misinterpret which products are or are not FSC certified in the document;</li> <li>b) The sales and delivery documents contain visible and understandable information so that the customer is aware that the full FSC claim is provided through supplementary evidence;</li> <li>c) In cases where the sales and delivery documents contain multiple products with different FSC Claims, a clear identification for each product shall be included to cross-reference it with the associated FSC claim provided in the supplementary evidence.</li> </ul> <p><i>FSC-ADVICE-40-004-05</i></p>		
<p><b>3. Labeling and Promotion</b></p>		<p><input type="checkbox"/> n/a</p>
<p>3.1 Describe where/how the organization uses the SCS and FSC trademarks for promotion.</p>	<p>C</p>	<p>BOF has FSC trademarks in brochures, its website, and timber sale documents.</p>
<p>3.2 The FME shall request authorization from SCS to use the FSC on-product labels and/or FSC trademarks for promotional use.</p>	<p>C</p>	<p>Through interviews with Jeff Woleslagle and a review of email approvals from Jillian Van Luchem (02/04/2014), BOF has demonstrated conformance.</p>
<p>3.3 Records of SCS and/or FSC trademark use authorizations shall be made available upon request.</p>	<p>C</p>	<p>Email record cited in 3.2 was made available.</p>
<p><b>4. Outsourcing</b></p>		<p><input checked="" type="checkbox"/> n/a</p>
<p>4.1 The FME shall provide the names and contact details of all outsourced service providers.</p>		

<p>4.2 The FME shall have a control system for the outsourced process which ensures that:</p> <ul style="list-style-type: none"> <li>a) The material used for the production of FSC-certified material is traceable and not mixed with any other material prior to the point of transfer of legal ownership;</li> <li>b) The outsourcer keeps records of FSC-certified material covered under the outsourcing agreement;</li> <li>c) The FME issues the final invoice for the processed or produced FSC-certified material following outsourcing;</li> <li>d) The outsourcer only uses FSC trademarks on products covered by the scope of the outsourcing agreement and not for promotional use.</li> </ul>		
<p><b>5. Training and/or Communication Strategies</b></p>		
<p>5.1 All relevant FME staff and outsourcers shall be trained in the FME's COC control system commensurate with the scale and intensity of operations and shall demonstrate competence in implementing the FME's COC control system.</p>	<p>C</p>	<p>BOF has a timber sale handbook that it provides for employees. It contains examples of contracts and invoices for different timber harvest types, including for timber sales that are not allowed to be sold as FSC. For example, OGM and Right-of-way lease areas are not allowed to be sold as FSC-certified.</p>
<p>5.2 The FME shall maintain up-to-date records of its COC training and/or communications program, such as a list of trained employees, completed COC trainings, the intended frequency of COC training (i.e. training plan), and related program materials (e.g., presentations, memos, contracts, employee handbooks, etc).</p>	<p>C</p>	<p>BOF's timber sale handbook is the main part of the COC training and communications program. All sale administrators must be knowledgeable of the sales process to be able to sell certified sales. No short-comings in this communications/ training system were noted during the 2014 audit.</p>