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

*Indiana Department of Natural Resources,
Division of Forestry, State Forest Properties*
Indiana, USA

SCS-FM/COC-00099N

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<http://www.in.gov/dnr/forestry/>

| CERTIFIED | EXPIRATION |
|-------------|-------------|
| 11/Jul/2012 | 10/Jul/2017 |

| |
|---------------------|
| DATE OF FIELD AUDIT |
| 7-9/Oct/2013 |
| DATE OF LAST UPDATE |
| 16/Dec/2013 |

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Foreword

| Cycle in annual surveillance audits | | | |
|--|--|---|---|
| <input type="checkbox"/> 1 st annual audit | <input checked="" type="checkbox"/> 2 nd annual audit | <input type="checkbox"/> 3 rd annual audit | <input type="checkbox"/> 4 th annual audit |
| Name of Forest Management Enterprise (FME) and abbreviation used in this report: | | | |
| Indiana Department of Natural Resources, Division of Forestry, State Forest Properties (DoF) | | | |

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

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

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

Organization of the Report

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

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SECTION A – PUBLIC SUMMARY

1. General Information

1.1 Annual Audit Team

| | | | |
|--|---------------|----------------------|--------------|
| Auditor Name: | Dave Wager | Auditor role: | Lead Auditor |
| <p>Qualifications: As previous FM Director for SCS, Dave spent ten years managing and/or leading Forest Stewardship Council (FSC) endorsed certification assessments on more than 100 forest management operations covering over 25 million acres of forestland across 16 countries. As a certification practitioner, Dave Wager has led FSC forest management and chain-of-custody assessments on a range of private and public operations across North America, Asia, and Latin America. In other natural resources work, Dave played a key role in the development of Starbucks CAFE Practices- a program to ensure procurement of sustainably grown and processed coffee. Dave has 17 years’ experience working in forestry and the environmental field. He has expertise in forest ecology and business (B.S. business, Skidmore College; M.S. Forest Resources, Utah State University). While studying forest ecology at Utah State University, Dave was awarded a NASA Graduate Student Research Fellowship to develop dendrochronological techniques to assess Douglas-fir growth in Utah’s Central Wasatch Mountains.</p> | | | |
| Auditor Name: | Mike Ferrucci | Auditor role: | FSC Auditor |
| <p>Qualifications: Mike Ferrucci is the former SFI Program Manager for NSF – International Strategic Registrations. He is qualified as a RAB-QSA Lead Auditor (ISO 14001 Environmental Management Systems), as an SFI Lead Auditor for Forest Management, Procurement, and Chain of Custody, as an FSC Lead Auditor Forest Management and Chain of Custody, as a Tree Farm Group Certification Lead Auditor, and as a GHG Lead Auditor. Mike has led Sustainable Forest Initiative (SFI) certification and precertification reviews throughout the United States. He has also led or participated in joint SFI and Forest Stewardship Council (FSC) certification projects in nearly one dozen states and a joint scoping or precertification gap-analysis project on tribal lands throughout the United States. He also co-led the pioneering pilot dual evaluation of the Lakeview Stewardship Unit on the Fremont-Winema National Forest.</p> <p>Mike Ferrucci has 30 years of forest management experience. His expertise is in sustainable forest management planning; in certification of forests as sustainably managed; in the application of easements for large-scale working forests, and in the ecology, silviculture, and management of mixed species forests, with an emphasis on regeneration and management of native hardwood species. Mike has conducted or participated in assessments of forest management operations throughout the United States, with field experience in 4 countries and 30 states. Mike has been a member of the Society of American Foresters for over 30 years. Mike is also a Lecturer at the Yale School of Forestry and Environmental Studies, where he has taught graduate courses and workshops in forest management, operations, professional forest ethics, private forestry, and financial analysis.</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: | 1 |
| D. Total number of person days used in evaluation: | 6 |

1.3 Standards Employed

1.3.1. Applicable FSC-Accredited Standards

| Title | Version | Date of Finalization |
|--|---------|----------------------|
| FSC US Forest Management Standard | V1-0 | 8 – July – 2010 |
| All standards employed are available on the websites of FSC International (www.fsc.org), the FSC-US (www.fscus.org) or the SCS Standards page (www.scsglobalservices.com/certification-standards-and-program-documents). Standards are also available, upon request, from SCS Global Services (www.SCSglobalServices.com). | | |

2 Annual Audit Dates and Activities

2.1 Annual Audit Itinerary and Activities

October 7, 2013, Morgan-Monroe State Forest

Brenda Huter, Forest Certification Coordinator, Indiana Division of Forestry
John Seifert, State Forester, Indiana Division of Forestry
Dan Ernst, Assistant State Forester, Indiana Division of Forestry
John Friedrich, Property Specialist, Indiana Division of Forestry
Scott Haulton, Forestry Wildlife Specialist, Indiana Division of Forestry
AJ Ariens, Forestry Archeologist, Indiana Division of Forestry
Jim Allen, Property Manager, Morgan-Monroe State Forest, Indiana Division of Forestry
Dave Vadas, Morgan-Monroe State Forest, Indiana Division of Forestry
Phil Jones, Morgan-Monroe State Forest, Indiana Division of Forestry
Joshua Kush, Morgan-Monroe State Forest, Indiana Division of Forestry

Stop 1: Completed Timber Sale in Compartment 15, Tract 10 (Back Country Area).

111-acre single tree selection harvest in south unit of Back Country Area (BCA). Harvest completed in winter 2012-13. Visited the two log landings of the sale and walked approximately one mile of trails. Confirmed that no regeneration openings were created in harvest area. Based on inventory and harvest records, approximately 18% of the available volume was removed. Confirmed that there was no harvest within the Low Gap Nature Preserve. Confirmed BCA harvest had lower volume removal than typical harvests on Morgan Monroe (harvests with comparable terrain not in the BCA have average removal of 28%). No new roads were created and BMP's were properly implemented, with the exception of the main skid trail that was still being worked by the power company. Plans are in place to put in water bars and other close out measures once the power company completes its work. Japanese stiltgrass was prevalent along segments of forest access roads on the NW portion of the sale (see Observation 2013.1).

Stop 2: Single Tree Selection. Compartment 9, Tract 1.

Stand marked but not yet cut. 130 acre single tree selection sale in northwest portion of Back Country Area (BCA). Sale marked but not yet cut. South portion of tract is hiking trail/road access. Confirmed no new roads and no openings per BCA policy. The stand was first marked under "IBat Strategy" but then DoF adopted the USFWS-BFO guidelines which necessitated retaining additional large diameter trees that were originally marked to cut. . Reviewed yard log area and portion of marked sale. Sale is marked to remove approximately 18% of available volume.

Stop 3: Morgan Monroe Training Center

Rehab of old building to provide training center with overnight dorms. Construction was done in cooperation with Department of Corrections' workers, contracted services and Division of Forestry in-house labor and trades.

Stop 4: Compartment 19 Duckworth Rd.

13-acre planting at 1000 trees per acre with excellent survival. Planted a variety of oak species reclaiming an agricultural field. All planting was done with local seed sources obtained from state nursery. Herbicide treatment (Oust) prior to planting.

Stop 5: Tract 19-1, and 19-2

198-acre improvement cut. Approximately 23% of volume removed. Combined tract sale in north portion of Ravinia Woods Unit. TSI project planned. Considerable tree damage along main skid trail. Also some damage on secondary skid trails and within the stand (Obs 2013.2).

October 8, 2013, Owen-Putnam State Forest

John Seifert, State Forester, Indiana Division of Forestry

Dan Ernst, Assistant State Forester, Indiana Division of Forestry

John Friedrich, Property Specialist, Indiana Division of Forestry

Scott Haulton, Forestry Wildlife Specialist, Indiana Division of Forestry

Brenda Huter, Forest Certification Coordinator, Indiana Division of Forestry

Bill Gallogly, Property Manager, Owen-Putnam State Forest, Indiana Division of Forestry

Rob Duncan, Forest Resource Specialist, Owen-Putnam State Forest

Ruthie Speas, Office Manager, Owen-Putnam State Forest

Thor Coons, Skidder Operator

Rock Neely, Logging Company Owner/Supervisor

Site #1: Completed Selection Harvest

Site #2: Maintenance Garage

Site #3: Active Harvest, interviews

Site #4: Compartment 7, Tract 4 – partially completed 91-acre improvement harvest and thinning with some selection of mature trees. Sale was halted by Indiana Division of Forestry due to wet conditions and some rutting; harvesting was halted before significant rutting occurred.

Site #5: Compartment 4, Tract 2 – Completed 91-acre improvement harvest and thinning.

Site #6: Owen-Putnam State Forest Rattlesnake Campground – 11 sites with picnic tables, grills, pit toilets; self-service; well maintained.

Site #7: Pleasant Grove Cemetery Trail (Orange)

Site #8: Cicumneutral Seep: RSA / Special Site; protected from harvest.

October 9, 2013, Greene-Sullivan State Forest

John Seifert, State Forester, Indiana Division of Forestry
Dan Ernst, Assistant State Forester, Indiana Division of Forestry
John Friedrich, Property Specialist, Indiana Division of Forestry
Scott Haulton, Forestry Wildlife Specialist, Indiana Division of Forestry
AJ Ariens, Forestry Archeologist, Indiana Division of Forestry
Brenda Huter, Forest Certification Coordinator, Indiana Division of Forestry
Tom Tompkins, Forest Resource Specialist, Greene-Sullivan State Forest
Phil Jones, Forest Resource Specialist, Morgan-Monroe State Forest

Site #1: C10T6, 2011 Phragmites Control, adjacent to Bass Lake
Reviewed documentation for Phragmites control carried out by Youth Hoosier Conservation Corp (YHCC). Glyphosate, 2.75 gallons applied using 5% Rodeo, 0.5% Invade.

Site #2: Japanese Knotweed Control, C2T2
June 2013 control of Japanese knotweed on 2 acre site. Used Garlon 3A (triclopyr) 1.2 gallons, foliar spray, applied garlon at 5% concentration. Chemical and rate determined by forester after trials and researching the most effective rate for killing this aggressive weed. Killed most of it, but some plants still alive in the middle of patch. Plan to treat again in 2014.

Site #3: Compartment 4, Tract 3
Completed 28-acre salvage harvest and recent reclamation project driven by need to re-grade former strip mine to eliminate hazardous high wall along roadside cliff. Resulting area has two ponds, roads, dense grass, and portions may be planted. Approximately 173,000 bf of timber were removed. Two small lakes were reclaimed and stocked with fish. Indiana Division of Forestry is still determining how much of the area to replant to forest.

Site #4: Compartment 4, Tract 3
TSI / invasive plant control. This 60- to 70-year old planted stand of pine, cottonwood, tulip, sycamore, locust, cherry, and walnut was planted with trees and shrubs (later determined to be invasive) and vines. This reclaimed site has very challenging terrain (the mining spoils were shaped into short and very steep corrugated mini-ridges). To control invasives they first put in skid roads and then sprayed pesticide from vehicle using power spray unit.

Site #5: Compartment 5, Tract 10
Recently completed 100-acre timber harvest in mixed stand of oak-hickory with white pine and southern pine pockets (Timber sale number 6331301). Also TSI. Confirmed implementation of BMPs and documentation of the Indiana Division of Forestry's timber sale administrative processes. Conservative marking with prescription leaving a lot of quality timber. Good BMP's and low residual stand damage. Stand marked for follow-up TSI work but uncertain if it will be done. Log yard to be converted to day use area for horse trail.

Site #6: Dead End Road, Compartment 5, Tract 9
Well-constructed and maintained, meeting BMPs.

Site #7: Compartment 5, Tract 9
Recently completed (another section of sale described for Site #5) with 3 regeneration openings (clearcut patches). Reviewed a 1.6 acre patch where logger left many scattered pole trees. Foresters

discussed possibility of using TSI program to complete the opening, focusing on the portions where are mostly open.

Site #8: Horse Camp

Nice facility includes a paved loop road, new outhouses, pull-through camp sites, tables, fire pits and horse hitching structures. Site often used for unauthorized “day ride” parking. New day ride parking area is under development (see site #5 comments).

Site #9: Narrow Lake Campground

Several new cabins; discussed challenges in getting approval and the need to generate revenue while meeting citizen demand for more developed facilities (cabins as alternative to tenting/camping).

2.2 Evaluation of Management Systems

SCS conducted the audit from October 7-9, 2013 with an audit team comprised of Dave Wager (lead auditor) and Mike Ferrucci (team forester). The process included the assembly and review of audit evidence consisting of documents, interviews, and on-site inspections of ongoing or completed forest practices. Documents describing these activities and lists of management activities were provided to the auditors during the audit, and a sample of the available field sites was selected by the audit team for review. The selection of field sites for inspection was based upon the risk of environmental impact, special features, past non-conformances/observations, and other factors. During the audit, the audit team reviewed a sample of the available written documentation as objective evidence of FSC conformance. Documents that were reviewed during this audit included management plans, procedures, timber sale inspection forms, chemical use records, responses to corrective action requests, among other policies, procedures and records.

3. Changes in Management Practices

There were no significant changes in the management and/or harvesting methods that affect the FME’s conformance to the FSC standards and policies.

4. Results of the Evaluation

4.1 Existing Corrective Action Requests and Observations

| | |
|--|--|
| Finding Number: 2012.1 | |
| Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation | |
| FMU CAR/OBS issued to (when more than one FMU): | |
| Deadline | <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): |
| FSC Indicator: | 4.4.a |

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|--|---|
| <p>Non-Conformity: DoF lacks a clear consistent approach for recording comments at open houses and tracking other complaints that are received at a state forest property. During the 2012 audit SCS observed differing approaches for tracking comments, and Clark State Forest did not have any records of stakeholder comments. The reason provided for not having any comments from the open house was that they had not received any comments.</p> | |
| <p>Corrective Action Request: DoF should clarify the approach that state forest properties use to record comments at open houses and for recording and tracking any complaints that are received.</p> | |
| <p>FME response <i>(including any evidence submitted)</i></p> | <p>The State Forests process was clarified as follows and was most recently communicated to field operations in the September 19, 2013 webinar:</p> <ol style="list-style-type: none"> 1) State Forests shall provide a summary report of their open house events and submit that report to the Section Head within 30 days after the event. The report is to include a brief overview of the event (date, time, location, format, number of attendees) and a summary of written and specific oral comments. Visitors with specific concerns are to be encouraged to make those comments in writing. A copy or full text of written comments is to be included in the report. Central Office staff will post an overall summary of the open house events annually. 2012 reports have been received and summarized. 2) Resource management comments received during public posting of management plans (resource management guides) will be reviewed, summarized, and response posted on the Division of Forestry (DoF) web site. 3) In general, incidental comments and complaints received throughout the year are to be handled at the property level. DoF/State Forest leadership is to be notified of complaints considered significant. 4) Written comments received by Central Office will be conveyed to the property for response and appropriate action. |
| <p>SCS review</p> | <p>SCS auditor verified that the process for recording stakeholder comments has been clarified and communicated to staff. Each State Property holds an annual outreach event. A summary report of stakeholder comments from each of the 213 open houses was presented to the SCS auditor. Auditor verified through interviews that the process for recording significant complaints is being followed.</p> |
| <p>Status of CAR:</p> | <p> <input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above) </p> |

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| Finding Number: 2012.2 | |
| Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation | |
| FMU CAR/OBS issued to (when more than one FMU): | |
| Deadline | <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): |
| FSC Indicator: | 5.3.b |
| Non-Conformity: Areas of the Clark State Forest salvage (within blocks 1 and 3) harvest could have been managed better to protect residual trees and avoid erosion. SCS auditor observed significant areas of exposed soil, some residual stand damage, and slopes missing water bars. The SCS auditor realizes the difficulty and dangers of operating in a post tornado disturbance and also noted that BMP implementation was effective in all areas visited during the 2012 audit with the exception of this salvage unit, and further that BMP implementation (skid trail closeout) was still ongoing in these areas. | |
| Corrective Action Request: DoF should take steps to ensure that BMPs are closely followed during salvage operations. | |
| FME response <i>(including any evidence submitted)</i> | Division of Forestry conducted regular visitations to the salvage operation noted. A BMP review of the site was conducted and issues noted at that time were corrected or in the process of being corrected. Per policy, all harvest operations are to be visited during periods of activity weekly – or more frequently as needed. Violations to the sales contract (including BMP provisions) are to be conveyed to logging crew. This visitation requirement and process is outlined in the State Forest Procedures Manual. |
| SCS review | SCS auditor reviewed written documentation showing proper repair of issues that occurred during tornado salvage harvest at Clark State Forest. Although there were no large salvage operations in 2013, the SCS auditor did verify that DoF forestry staff are visiting active harvests on a weekly basis. SCS auditor verified that the sale visitation process (as described above) is outlined in the Forest Procedures Manual. |
| Status of CAR: | <input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above) |

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| Finding Number: 2012.3 | |
| Select one: <input type="checkbox"/> Major CAR <input checked="" type="checkbox"/> Minor CAR <input type="checkbox"/> Observation | |
| FMU CAR/OBS issued to (when more than one FMU): | |
| Deadline | <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): |
| FSC Indicator: | 6.3.g.1 |
| Non-Conformity: Although DoF has existing structural retention guidelines for State Forest, the 2012 tornado salvage on Clark State Forest included a large even-aged management prescription that did not | |

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| <p>include a specific prescription for retaining live trees and other native vegetation within the harvest unit in a proportion and configuration that is consistent with the characteristic natural disturbance regime. The salvage included a severe impact zone of 600 acres where harvesting contractors were allowed to take all trees. Post tornado damage (pre-harvest) aerial photographs showed that even in the severe impact zone there were still some small standing patches where some characteristic green tree retention should have been left. Some retention was left as there were non-merchantable trees left standing and areas that were inaccessible due to topography or other limitations. However, this retention was not designed in conformance with 6.3.g.1.</p> | |
| <p>Corrective Action Request: DoF must revise existing structural retention guidelines applicable to even-age harvests to include salvage harvests, and must implement revised procedures for even-age and salvage harvests that ensure conformance with 6.3.g.1.</p> | |
| <p>FME response (including any evidence submitted)</p> | <p>DoF has revised its <i>Management Guidelines for Wildlife Habitat Features</i> by adding language to the section titled “Residual Structure in Even-age Stands”. The revised paragraph appears below and the added sentence addressing this CAR is highlighted:</p> <p>“Definition and Applicability: Residual structure includes “islands” of sound, mature trees, understory trees, shrubs, live cavity trees, and snags left in reserve within even-aged regeneration openings ≥ 20 acres. This guideline also applies when regeneration openings ≥ 20 acres are created within salvage areas following a large-scale disturbance. Residual structure should total at least 5% of the regeneration opening area, configured as an individual island or several islands, each no smaller than 1/5 acre. For example, a 20 acre shelterwood would require either one 1 acre island or several islands $>1/5$ acre that total 1 acre. Residual structure is retained throughout the entire rotation of the even-age stand.”</p> <p>All future even-age and salvage harvests with regeneration openings ≥ 20 acres in size will follow this revised guideline, ensuring conformance with 6.3.g.1.</p> |
| <p>SCS review</p> | <p>SCS verified that the changes described above were made to Wildlife Habitat Guidelines. Implementation of the salvage harvest retention will be assessed if and when DoF undertakes another large salvage harvest.</p> |
| <p>Status of CAR:</p> | <p><input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above)</p> |

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| <p>Finding Number: 2012.4</p> | |
| <p>Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation</p> | |
| <p>FMU CAR/OBS issued to (when more than one FMU):</p> | |
| <p>Deadline</p> | <p><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):</p> |
| <p>FSC Indicator:</p> | <p>4.4.d.</p> |
| <p>Non-Conformity: DoF is in discussion with an aggregate company about a land exchange on the Harrison Crawford State Forest. To-date there has not been any public consultation regarding this</p> | |

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| potential exchange. Indicator 4.4.d requires that public notification be sufficient to allow interested stakeholders the chance to learn of upcoming opportunities for public review and/or comment on the proposed management. | |
| Corrective Action Request: Beginning with the pending exchange on Harrison Crawford, DoF should ensure that there is a public review process for land exchanges. | |
| FME response <i>(including any evidence submitted)</i> | The mentioned exchange on Harrison-Crawford still does not have details of the exchange delineated as of yet – such as how many and what acres are to be exchanged – so it is not available for public review. However, a more recent exchange proposal has been posted on the DoF website for public review. In the future all proposed exchanges will be posted on the DoF website for public review. |
| SCS review | Verified that a procedure to seek public consultation on land exchanges has been implemented. Confirmed the consultation procedure was implemented for a 2013 land exchange involving Royer property. |
| Status of CAR: | <input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above) |

4.2 New Corrective Action Requests and Observations

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| Finding Number: 2013.01 | |
| Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation | |
| FMU CAR/OBS issued to (when more than one FMU): | |
| Deadline | <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): |
| FSC Indicator: | 6.3.h. |
| <p>Background: Indicator 6.3.h requires the forest manager to implement management practices that minimize the risk of invasive establishment, growth, and spread. DoF implements many activities consistent with meeting the requirements for invasive species control and prevention. However, the following evidence supports issuing an opportunity to improve overall conformance with 6.3.h:</p> <ol style="list-style-type: none"> DoF is not systematically undertaking efforts to minimize spread of Japanese stiltgrass on recreation or management trails. Auditors observed stiltgrass spreading from fire lane access roads onto skid trails (e.g., Morgan Monroe T. 10-15). Efforts such as harvest timing or using seed mixes that are more competitive against stiltgrass may have merit and are not currently being used systematically. In 2011 DoF committed to putting information about invasive plant species at trailhead kiosks. At the time of the 2013 audit, trailhead kiosks were lacking such information. | |
| Observation | DoF should consider additional measures to minimize the risk of invasive establishment, growth, and spread. |
| FME response <i>(including any evidence</i> | |

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|-----------------------|--|
| <i>submitted)</i> | |
| SCS review | |
| Status of CAR: | <input type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i> |

| | |
|--|--|
| Finding Number: 2013.02 | |
| Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation | |
| FMU CAR/OBS issued to (when more than one FMU): | |
| Deadline | <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): |
| FSC Indicator: | 6.5.c |
| <p>Background: Indicator 6.5.c requires that “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.” The following findings supports an opportunity to improve conformance with this Indicator:</p> <ol style="list-style-type: none"> 1. One site visited during the audit had areas with rutting on secondary skid trails that appeared sufficient to impact the roots of trees and soil properties (Owen Putnam Compartment 7, Tract 4). The operations were stopped by the DoF sale administrator before further damage occurred. 2. One site visited during the audit had significant tree damage to primarily post and pole size trees along main skid trails and some isolated damage along secondary skid trial (Morgan Monroe Compartment 19, Tracts 1 and 2). | |
| Observation | DoF should consider implementing additional training, logging contractor incentives, or other measures to improve conformance with 6.5.c. |
| FME response <i>(including any evidence submitted)</i> | |
| SCS review | |
| Status of CAR: | <input type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i> |

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|--|--|
| Finding Number: 2013.03 | |
| Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation | |
| FMU CAR/OBS issued to (when more than one FMU): | |
| Deadline | <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): |
| FSC Indicator: | 6.3.a.1 |
| <p>Background: Indicator 6.3.a.1 requires the forest manager to “maintain, enhance, and/or restores under-represented successional stages. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is managed to enhance and/or restore old growth characteristics.”</p> <p>As described in response to CAR 2011.4, DoF has committed to managing approximately 6550 acres of Back Country Areas (BCA) to develop into a late seral condition. As confirmed during the audit, practices of long rotations and lower intensity single tree selection harvests are moving stands to a late seral condition. However, the written guidance for managing BCAs is lacking a provision that ensures some over-mature trees are retained as part of the selection harvests. The audit did not uncover any BCAs that were lacking in over-mature trees, but it must be ensured that written procedures are consistent with management objectives for late seral conditions.</p> | |
| Observation | DoF should revise procedures to reflect and ensure that some over-mature trees are retained in BCAs and other areas designated for meeting the objectives of late seral conditions. |
| FME response <i>(including any evidence submitted)</i> | |
| SCS review | |
| Status of CAR: | <input 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:

1. 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.
2. 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 the pre-evaluation (if one was conducted), 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

| | |
|---------------------|---------------------|
| DoF employees | Logging contractors |
| Environmental Group | |

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 |
| Economic concerns | |
| Controlled wood has significantly diminished the opportunities to sell veneer as FSC 100% because panel manufacturers can use controlled veneer on an FSC 100% substrate and still achieve the market access for those products. Since Indiana’s niche is high quality hardwood veneer- this has decreased the economic value of being FSC certified. | Duly noted. Comment passed onto FSC U.S. |
| Social concerns | |
| None | |
| Environmental concerns | |
| <p>One group expressed an opinion that harvesting should not occur in Back Country Areas (BCA) for the following reasons:</p> <ol style="list-style-type: none"> 1. Monroe County commissioners officially called for permanent protection of the BCA from commercial extraction. Additionally, the BCA was established in 1981 by then Governor Orr. IDNR director James Ridenour announced the creation of a new Back Country Area in the Morgan-Monroe and Yellowwood State Forests in early August of 1981. The then deputy director of the DNR, John Costello, is quoted in the Brown County | <p>The audit team investigated who has the authority over management of the BCA and whether or not timber harvesting is permitted. A Department Memorandum (1/24/1983) clarified that DoF local forestry staff retain the control over management decisions in the BCA. The fact that a Monroe County commissioners resolution called for permanent protection of the BCA from commercial extraction is in contrast with rules outlined in creating this BCA. The Memo clarified that timber harvesting is permitted as long as it is single tree selection of mature, damaged, or diseased trees and avoids</p> |

| | |
|---|---|
| <p>Gazette (August 12, 1981) as saying that "designating the 'back country' area shows the department is attempting to respond to the desire of some Hoosiers for a wilderness experience."</p> | <p>slopes > 45 degrees. The allowance of timber harvesting in BCA's was also stated in an article, "New Backcountry Area at Morgan-Monroe State," for Outdoor Indiana (Dec 1981/Jan 1982 issue). SCS auditor verified that logging did not occur on slopes great than 45 degrees and that only single tree selection was used. See notes in section 2.1 of this report.</p> <p>In 2008, DoF developed a BCA policy that allows harvesting with a "goal to create a stand condition that appears more unmanaged than typical tracts".</p> <p>Based on visits to two BCA timber sales, DoF is meeting their BCA policy. An Observation was issued to improve the BCA written guidance to ensure that large old trees are left to decline and dye naturally. Senescence and the subsequent development of dead wood are key components of late seral habitat, and management practices observed in the field should allow for it.</p> |
| <p>2. BCA is listed as one of the primary HCVF areas in the Indiana Division of Forestry's defense of its "sustainable" practices.</p> | <p>BCAs do not automatically qualify as HCVF. However, all Nature Preserves are included as HCVF. One of the BCAs does include the Low Gap Nature Preserve. DoF has not harvested within this Nature Preserve. If harvesting does occur in this Nature Preserve in the future it would be done so under the direction of the Division of Nature Preserves because they have management responsibility for all Nature Preserves. Per FSC requirements any harvesting within an HCVF would have to be conducted in a manner that maintains the HCV characteristics. BCA harvests that were the subject of this stakeholder's concern were done outside of the Low Gap Nature Preserve.</p> |
| <p>3. The board footage for these two sales combined (723,701 bf + 721,224 bf) is in excess of 1.4 million board feet. This amount from just these two sales alone is greater than what was sold off of the entire state forest system during the entire year of 2002. (Also greater than what was taken off the entire Hoosier National Forest in Indiana during the height of logging there, and the land area of the Hoosier is greater than the combined 13 state forests in Indiana.) And this is only one day of sales among many</p> | <p>The 1.4 million BF cited by this stakeholder is incorrect. Since 1970, there have been only two sales in the Morgan Monroe BCA and the volumes sold are 200,810 BF and 214,620 BF. The claim that the BCA sales exceeded all harvest in 2002 is also incorrect. In year 2002, DoF sold approximately 1.2 million BF of timber versus 415,000 BF in the BCA. Also, year 2002 had the lowest volume sold in the last decade so it is not a good comparison. The average annual harvest over the last decade has been approximately 2.5 million BF.</p> |

| | |
|--|--|
| <p>others this year for Morgan-Monroe State Forest alone! This also greatly concerns us, especially in the face of Indiana Division of Forestry claims of certified sustainable forestry</p> | <p>Regardless of the harvest levels and how those compare with historical harvest levels across the State of Indiana, the audit confirmed that the DoF is meeting their BCA policies and that DoF remains within its established sustained yield harvest calculation. Given that the BCA is not old growth, does not contain any unique ecological values, and has not been identified as HCVF, the FSC standards do not have any explicit requirements for limiting harvest in these areas. DoF has demonstrated in the field that it is able to meet constraints established in BCA management planning documents.</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 recommends that the certificate be sustained, subject to subsequent annual audits and the FME's response to any open CARs.</p> | <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> |
| <p>Comments:</p> | |

7. Changes in Certification Scope

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

Name and Contact Information

| | | | |
|-------------------|---|-----------|--|
| Organization name | Indiana DNR, Division of Forestry | | |
| Contact person | Brenda Huter | | |
| Address | Indiana Dept of Natural Resources Division of Forestry 402 W. Washington, Room W-296 Indianapolis, IN 46204 USA | Telephone | 317-232-0142 |
| | | Fax | 317-233-3863 |
| | | e-mail | bhuter@dnr.in.gov |
| | | Website | www.in.gov/dnr/forestry www.inforestryx.com |

FSC Sales Information

| | | | |
|-----------------|----------------|-----------|--|
| FSC salesperson | Same as above. | | |
| Address | | Telephone | |
| | | Fax | |
| | | e-mail | |
| | | Website | |

Scope of Certificate

| | | | | |
|--|---|-----------------------------|--|---|
| Certificate Type | <input checked="" type="checkbox"/> Single FMU | | <input type="checkbox"/> Multiple FMU | |
| | <input type="checkbox"/> Group | | | |
| SLIMF (if applicable) | <input type="checkbox"/> Small SLIMF certificate | | <input type="checkbox"/> Low intensity SLIMF certificate | |
| | <input type="checkbox"/> Group SLIMF certificate | | | |
| # Group Members (if applicable) | N/A | | | |
| Number of FMU's in scope of certificate | N/A | | | |
| Geographic location of non-SLIMF FMU(s) | Latitude: W 86 degrees 10 minutes Longitude: N 39 degrees 46 minutes | | | |
| Forest zone | <input type="checkbox"/> Boreal | | <input checked="" type="checkbox"/> Temperate | |
| | <input type="checkbox"/> Subtropical | | <input type="checkbox"/> Tropical | |
| Total forest area in scope of certificate which is: | | | | Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac |
| privately managed | 0 | | | |
| state managed | 156,872 | | | |
| community managed | 0 | | | |
| Number of FMUs in scope that are: | | | | |
| 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 | |
| Total forest area in scope of certificate which is included in FMUs that: | | | | Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac |
| are less than 100 ha in area | 0 | | | |
| are between 100 ha and 1000 ha in area | 0 | | | |
| meet the eligibility criteria as <i>low intensity</i> SLIMF FMUs | 0 | | | |
| Division of FMUs into manageable units: | | | | |
| The Division of Forestry (DoF) is a unit of the Department of Natural Resources, a state agency within the executive branch of the Indiana state government. DoF divides the FMU into State Forests. Each State Forest is then divided into tracts that are the units upon which all forest management activities are based. | | | | |

Production Forests

| | |
|---|---|
| Timber Forest Products | Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac |
| Total area of production forest (i.e. forest from which timber may be harvested) | 156,872 |
| Area of production forest classified as 'plantation' | 0 |
| Area of production forest regenerated primarily by replanting or by a combination of replanting and coppicing of the planted stems | 12 |
| Area of production forest regenerated primarily by natural regeneration, or by a combination of natural regeneration and coppicing of the naturally regenerated stems | 442.5 |
| Silvicultural system(s) | Area under type of management |

| | |
|---|---------------|
| Even-aged management | |
| Clearcut (clearcut size range 11 – 35 ac) | 155.5 |
| Shelterwood | 0 |
| Other: | 0 |
| Uneven-aged management | |
| Individual tree selection | 3904 |
| Group selection | 287 |
| Other: salvage | 1696 |
| <input type="checkbox"/> Other (e.g. nursery, recreation area, windbreak, bamboo, silvo-pastoral system, agro-forestry system, etc.) | N/A |
| The sustainable rate of harvest (usually Annual Allowable Harvest or AAH where available) of commercial timber (m3 of round wood) | 24,700,000 BF |
| Non-timber Forest Products (NTFPs) | |
| Area of forest protected from commercial harvesting of timber and managed primarily for the production of NTFPs or services | 0 |
| Other areas managed for NTFPs or services | 0 |
| Approximate annual commercial production of non-timber forest products included in the scope of the certificate, by product type | 0 |
| Explanation of the assumptions and reference to the data source upon which AAH and NTFP harvest rates estimates are based: | |
| | |
| Species in scope of joint FM/COC certificate: <i>Scientific/ Latin Name (Common/ Trade Name)</i> | |
| <p>Quercus spp. Oaks: white, red, black, scarlet, post, bur, swamp chestnut, swamp white, chestnut, chinkapin, shingle, black jack, cherry bark, pin, shumard</p> <p>Liriodendron tulipifera (yellow-poplar)</p> <p>Acer spp (Maple: sugar, red, black, silver, boxelder)</p> <p>Carya spp (Hickory: bitternut, mockernut, shagbark, red, pignut)</p> <p>Fraxinus spp. (Ash: white, green, pumpkin, black, blue)</p> <p>Pinus spp (Pine: white, red, Scotch, Virginia, shortleaf)</p> <p>Juniperus virginiana (red cedar)</p> <p>Sassafras albidum (sassafras)</p> <p>Plantanus occidentalis (sycamore)</p> <p>Liquidamber styraciflua (sweet gum)</p> <p>Ulmus spp. (elms)</p> <p>Celtis occidentalis (hackberry)</p> <p>Juglans nigra (black walnut)</p> <p>Fagus grandifolia (American beech)</p> <p>Tilia Americana (basswood)</p> <p>Populus spp. (large-toothed aspen, quaking aspen, cottonwood)</p> <p>Prunus serotina (black cherry)</p> <p>Gleditsia triacanthos (honey locust)</p> <p>Gymnocladus dioica (Kentucky coffee-tree)</p> <p>Robinia pseudoacacia (black locust)</p> <p>Nyssa sylvatica (black gum)</p> <p>Aesculus spp (Ohio, yellow)</p> | |

Catalpa speciosa (Catalpa)

FSC Product Classification

| Timber products | | |
|-------------------------------|-----------------|-----------------------------|
| Product Level 1 | Product Level 2 | Species |
| W1 Rough Wood | W1.1 Roundwood | All |
| W1 Rough Wood | W1.2 Fuelwood | All |
| W3 Wood in chips or particles | W3.1 Wood chips | All |
| Non-Timber Forest Products | | |
| Product Level 1 | Product Level 2 | Product Level 3 and Species |
| | | |

Conservation Areas

| Total area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives | | 2018 ac | | |
|---|------|---|---|-----------|
| High Conservation Value Forest/ Areas | | | | |
| High Conservation Values present and respective areas: | | Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac | | |
| | Code | HCV Type | Description & Location | Area |
| <input checked="" type="checkbox"/> | HCV1 | Forests or areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia). | Virginia Pine-Chestnut Oak, Clark SF, (19.4 A) Alum Cave Hollow, Clark SF, (164.2 A) Batwing Cave, Harrison-Crawford SF, (10.5 A) Deam's Bluff, Harrison-Crawford SF, (251.9 A) Scout Ridge, Morgan-Monroe SF, (15.1 A) Crooked Creek, Yellowwood SF, (34.3 A) | 495.4 ac |
| <input type="checkbox"/> | HCV2 | Forests or areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance. | | |
| <input checked="" type="checkbox"/> | HCV3 | Forests or areas that are in or contain rare, threatened or endangered ecosystems. | White Oak , Clark SF,(133.7 A) Post Oak-Cedar, Harrison-Crawford SF, (275.5 A); Scout Mountain, Harrison-Crawford SF, (47.7 A) Leavenworth Barrens, Harrison- | 1873.5 ac |

| | | | | |
|--|------|--|--|---------|
| | | | Crawford SF, (747.5 A) Blue River Gravel Wash Barrens, Harrison-Crawford SF, (77.6 A) Indian Bitter, Jackson- Washington SF, (36.7 A) Knobstone Glades, Jackson- Washington SF, (58.8 A) Henshaw Bend, Martin SF, (82.5 A) Tank Spring, Martin SF, (62.9 A) Low Gap, Morgan-Monroe SF,(320 A) Miller Ridge, Yellowwood SF, (30.6 A) | |
| <input type="checkbox"/> | HCV4 | Forests or areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control). | | |
| <input type="checkbox"/> | HCV5 | Forests or areas fundamental to meeting basic needs of local communities (e.g. subsistence, health). | | |
| <input 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). | | |
| Total Area of forest classified as 'High Conservation Value Forest/ Area' | | | | 2018 ac |

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

| | | |
|--|--|--|
| <input checked="" type="checkbox"/> N/A – All forestland owned or managed by the applicant is included in the scope. | | |
| <input 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. | | |
| Explanation for exclusion of FMUs and/or excision: | | |
| Control measures to prevent mixing of certified and non-certified product (C8.3): | | |
| Description of FMUs excluded from or forested area excised from the scope of certification: | | |
| Name of FMU or Stand | Location (city, state, country) | Size (<input type="checkbox"/> ha or <input type="checkbox"/> ac) |
| | | |
| | | |

8. Annual Data Update

Social Information

| | | |
|---|------------------------|-------------------|
| Number of forest workers (including contractors) working in forest within scope of certificate (differentiated by gender): | | |
| # of male workers 145 | # of female workers 40 | |
| Number of accidents in forest work since last audit | Serious: # 1 | Fatal: # 0 |

Annual Summary of Pesticide and Other Chemical Use

FME does not use pesticides.

| Commercial name of pesticide/ herbicide | Active ingredient | Quantity applied annually (kg or lbs) | Size of area treated during previous year | Reason for use |
|--|-------------------|---------------------------------------|---|--|
| Crossbow | 2,4 D & Triclopyr | 4.9 gallons | 27.3 acres | Invasive species control (Japanese knotweed); brush control |
| Citrine Ultra | Copper | 202 gallons | 164 acres | Algae control (oedogonium) |
| Aquathol K | Endothall | 70 gallons | 73.08 acres | Aquatic weed control (duckweed, watermeal, water lily, naiads) |
| Aqua Pro, Buccaneer, Buccaneer Plus, Cornerstone, Credit, Gly Star Plus; Initiator Plus, Razor, Rodeo, Roundup | Glyphosate | 243 gallons | 321 acres | Invasive species control (multiflora rose, bush honeysuckle, autumn olive, creeping water primrose, phragmites, Johnson grass); timber stand improvement; recreation maintenance |
| Arsenal, Polaris, Stalker | Imazapyr | 11 gallons | 382 acres | Timber stand improvement; invasive species control (ailanthus); right of way clearing |
| Escort XP | Metasulfuron | 0.6 gallon | 9 acres | Right of way clearing |
| Pathway, Tordon RTU | Picloram, 2,4-d | 9 gallons | 614 acres | Invasive species control (ailanthus, |

| | | | | |
|--------------------------------|---|-------------|-----------|--|
| | | | | kudzu); timber stand improvement; Grape vine control |
| Poast | Sethoxydim | 125 gallons | | Invasive species control (Japanese stiltgrass) |
| Oust | Sulfometuron-methyl | .2 gallons | 5 acres | Tree planting weed control |
| Element 4, Garlon 3A, Garlon 4 | Triclopyr | 34 gallons | 397 acres | Invasive species control (ailanthus, autumn olive, bush honeysuckle, poulownia, Japanese knotweed, multiflora rose, Johnson grass) |
| Milestone | Triisopropanolamine salt of aminopyralide | .15 gallon | 18 acres | Right of way clearing |

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

See section 2.1 of this report for FME Staff Consulted.

List of other Stakeholders Consulted

| Name | Organization | Contact Information | Consultation method | Requests Cert. Notf. |
|--|-------------------|---------------------|---------------------|----------------------|
| Thor Coons, Skidder Operator | Tri-State Logging | NA | In-person interview | no |
| Rock Neely, Logging Company Owner/Supervisor | Tri-State Logging | NA | In-person interview | no |

Appendix 3 – Additional Audit Techniques Employed

None.

Appendix 4 – Pesticide Derogations

| <input checked="" type="checkbox"/> There are no active pesticide derogations for this FME. | | |
|---|----------------------|--------------------------|
| Name of pesticide / herbicide (active ingredient) | | Date derogation approved |
| Condition | Conformance (C / NC) | Evidence of progress |
| | | |

Appendix 5 – Detailed Observations

| Evaluation Year | FSC P&C Reviewed |
|-----------------|--|
| 2011 | All – (Re)certification Evaluation |
| 2012 | 1.5, 2.3, 3.2, 4.2, 4.4, 5.6, 6.2, 6.3, 8.2, 9.4 |
| 2013 | 1.1-1.6, 2.3, 3.2, 4.2, 4.4, 5.3, 5.6, 6.1-6.10, 9.4 |
| 20XX | |

| | |
|------|--|
| 20XX | |
|------|--|

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

| REQUIREMENT | C/N C | COMMENT/CAR |
|---|----------|---|
| P1 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. | | |
| C1.1 Forest management shall respect all national and local laws and administrative requirements. | C | |
| 1.1.a. Forest management plans and operations demonstrate compliance with all applicable federal, state, county, municipal, and tribal laws, and administrative requirements (e.g., regulations). Violations, outstanding complaints or investigations are provided to the Certifying Body (CB) during the annual audit. | C | DoF remains in conformance with all applicable legal requirements. DoF continues to work proactively with US Fish and Wildlife Service to ensure compliance with Endangered Species Act requirements for Indiana Bat. There have been no changes to the status of outstanding complaints or investigations. DoF is a unit of the Department of Natural Resources, a state agency within the executive branch of the Indiana state government. DoF reported that a notice of intent to sue issued on May 25, 2011 by an environmental NGO, but that no follow-up action on the NGO's part has occurred. |
| 1.1.b. To facilitate legal compliance, the forest owner or manager ensures that employees and contractors, commensurate with their responsibilities, are duly informed about applicable laws and regulations. | C | Verified DoF Timber Sale Agreement references to OSHA requirements, compliance with federal/ state/ local laws, discrimination, BMPs, wet weather access, fire prevention and control, etc. |
| C1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid. | C | |
| 1.2.a. The forest owner or manager provides written evidence that all applicable and legally prescribed fees, royalties, taxes and other charges are being paid in a timely manner. If payment is beyond the control of the landowner or manager, then there is evidence that every attempt at payment was made. | C | Verified through interviews and records that DoF is paying 15% of net timber sale proceeds to the county from which the timber sale originated. |
| C1.3. In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected. | C | |
| 1.3.a. Forest management plans and operations comply with relevant provisions of all applicable binding international agreements. | C | Auditor confirmed conformance as reported in 2011 FSC report is still valid. There have been no changes to the following findings: In the State of Indiana, there is one forest species covered under CITES, <i>Panax quinquefolius</i> or American ginseng. In the United States, each state is responsible to regulating the commercial sale of this CITES-listed species. Commercial harvest of ginseng is regulated through the <i>Indiana Administrative Code, Title 312, Article 19 Research, Collection, Quotas, and Sales of Plants</i> , and <i>Indiana Code IC 14-31-3, Chapter 3. Ginseng</i> . Commercial harvesters and sellers must obtain permits and licenses through the State of |

| | | |
|---|---|---|
| | | <p>Indiana and adhere to harvesting practices intended to maintain the ginseng resource.</p> <p>ITTA is not applicable. Federal and State regulations, such as the Endangered Species Act, are intended to address issues of biodiversity, such as RTE species.</p> <p>ILO Conventions that the US has ratified are met through federal and state laws. Convention 87 applies to both public and private organizations, while Convention 98 is inapplicable to government organizations.</p> |
| C1.4. 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. | C | |
| 1.4.a. Situations in which compliance with laws or regulations conflicts with compliance with FSC Principles, Criteria or Indicators are documented and referred to the CB. | C | Confirmed that DoF is aware of requirement to raise any conflicts between laws and FSC Principles to SCS. |
| C1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities. | C | |
| 1.5.a. The forest owner or manager supports or implements measures intended to prevent illegal and unauthorized activities on the Forest Management Unit (FMU) . | C | <p>There is ample evidence of conformance with 1.5.a. including:</p> <ul style="list-style-type: none"> • Active marking of property boundaries with all boundaries painted every 5 years. For properties where boundary is uncertain, DoF works with surveyor to establish boundary. • DoF is purchasing in-holdings in order to have a more contiguous ownership that is easier to manage. • DoF gates access roads. • ATV's are prohibited on State Forests. • DoF maintains a "good neighbor database" and invites the public to yearly open houses. • DoF maintains a close working relationship with Law Enforcement. • DoF does a good job posting state forest regulations and trail closures. |
| 1.5.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. | C | DoF works closely with law enforcement officers to curtail illegal activities. No signs of significant illegal activities were found at the sites visited during the 2013 audit. |
| C1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria. | C | |
| 1.6.a. The forest owner or manager demonstrates a long-term commitment to adhere to the FSC Principles and Criteria and FSC and FSC-US policies, including the FSC-US Land Sales Policy, and has a publicly available statement of commitment to manage the FMU in conformance with FSC standards and policies. | C | DoF has made a public commitment to manage the state forests in conformance with the FSC Principles & Criteria. Language was updated in 2012 in response to CAR 2011.2. |
| 1.6.b. If the certificate holder does not certify their entire holdings, then they document, in brief, the reasons for seeking partial certification referencing FSC-POL-20-002 (or subsequent policy revisions), the location of other managed forest units, the natural resources found on the | C | DoF includes the entirety of the state forest FMU within the scope of the FSC certificate. Additionally, DoF manages a separate FSC certificate of non-industrial timber lands through the Classified Forest Program. |

| | | |
|--|---|---|
| holdings being excluded from certification, and the management activities planned for the holdings being excluded from certification. | | |
| 1.6.c. The forest owner or manager notifies the Certifying Body of significant changes in ownership and/or significant changes in management planning within 90 days of such change. | C | DoF has not experienced any significant changes in ownership or management during the past year. DoF understands the requirement to notify SCS of any significant change. |
| P2 Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established. | | |
| C2.3. 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. | C | |
| 2.3.a. 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. | C | DoF maintains an open door policy both at the level of the central office and each state forest. Confirmed open door policy is used at Morgan Monroe, Owen Putnam, and Greene Sullivan State Forests. Also, DoF response to CAR 2012.1 clarifies the process of elevating significant complaints to the Central Office. If concerns cannot be resolved at the individual state forest level, or the central office, concerned stakeholders are informed that they can raise their complaints to the Natural Resources Commission (NRC) - which meets monthly. Following the NRC, the U.S. court system is an option. DoF staff regularly check boundaries for timber sales that abut other ownerships. Additionally, they apply a no-harvest buffer zone to these types of sales. |
| 2.3.b. The forest owner or manager documents any significant disputes over tenure and use rights. | C | DoF tracks legal ownership and boundary disputes through the State Land Office. Most issues deal with timber theft and unauthorized installation of septic lines or other utilities into state lands. |
| P3 The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected. | | |
| C3.2. Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples. | C | |
| 3.2.a. During management planning, the forest 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. | C | In May of 2007, DoF sent letters to both federally recognized and unrecognized tribes with ancestral connections to the State of Indiana. DoF received three responses, including one update to contact information. Tribes have not expressed interest in any DoF state forests or resources. SCS' stakeholder consultation yielded no responses from tribes. |
| 3.2.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. | C | DoF continues to identify and protect archeological sites on DoF lands. In 2013, DoF identified and appropriately documented a site with Native American pottery (confirmed during Interview AJ Ariens, Forestry Archeologist). |
| P4 Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities. | | |
| C4.2. Forest management should meet or exceed all applicable laws and/or regulations covering health and | C | |

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| safety of employees and their families. | | |
| 4.2.a. 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 | DoF takes active steps to ensure safety, such as: <ul style="list-style-type: none"> • safety inspections from Indiana Human Resources occur at each State forest; • safety meetings take place once per month; • safety training classes are offered, e.g., chainsaw safety for DoF employees; • DoF provides insect repellent and safety boots for staff; • DoF is an active support of logger education in Indiana. |
| 4.2.b. The forest owner or manager and their employees and contractors demonstrate a safe work environment. Contracts or other written agreements include safety requirements. | C | DoF’s timber sale agreement (4A Timber Sale Agreement includes several items related to safety (see items 12, 13, 15, 18, and 19). Observed conformance with safety requirements at Tri-State timber sale. Confirmed use of proper PPE when forestry staff used Garlon on knotweed at Greene Sullivan. |
| 4.2.c. The forest owner or manager hires well-qualified service providers to safely implement the management plan. | C | DoF’s timber sale agreement requires that at least one logger on each job site have at least complete Game of Logging (GOL) Level 1 training. |
| C4.4. Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations. | C | |
| 4.4.a. The forest owner or manager understands the likely social impacts of management activities, and incorporates this understanding into management planning and operations. Social impacts include effects on: <ul style="list-style-type: none"> • Archeological sites and sites of cultural, historical and community significance (on and off the FMU); • Public resources, including air, water and food (hunting, fishing, collecting); • Aesthetics; • Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health; • Community economic opportunities; • Other people who may be affected by management operations. A summary is available to the CB. | C | All of the bulleted items of 4.4.a continue to be addressed by DoF. DoF does an exceptional job at identifying and protecting historical archaeological sites. DoF holds an annual open house event at each of the State forests to improve understanding of social impacts of management activities. A summary of the results of the 2012 meetings was reviewed by the SCS auditor. |
| 4.4.b. The forest owner or manager seeks and considers input in management planning from people who would likely be affected by management activities. | C | All management planning documents and timber sale plans are open to public comment for at least 30 days prior to finalization. Additionally, DoF holds several public meetings and open houses throughout the state each year to solicit and address public comments. |
| 4.4.c. People who are subject to direct adverse effects of management operations are apprised of relevant activities in advance of the action so that they may express concern. | C | There are two principle ways that people are apprised of relevant activities: 1) timber sales & state forest management guides are on the website and stakeholders can provide comments; and 2) Open houses (open house will have list of planned activities). DoF also attempts to prepare news releases to advertise events. For adjacent landowners, a notification letter on upcoming timber sales is sent. |
| 4.4.d. For public forests , consultation shall include the | C | For background in this indicator and DoF, see Major |

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| <p>following components:</p> <ol style="list-style-type: none"> 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; 2. Public notification is sufficient to allow interested stakeholders the chance to learn of upcoming opportunities for public review and/or comment on the proposed management; 3. An accessible and affordable appeals process to planning decisions is available. <p>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.</p> | | <p>CAR 2006.2 and minor CAR 2007.1. This indicator is nearly identical to the previous standard and those CARs addressed items 1-3, as well as the unnumbered part, of the indicator.</p> <p>See indicator 7.1.r for an explanation of the stakeholder consultation process that address parts 1-3 of this indicator. See also comments in Principle 9 related to public consultation.</p> <p>In Indiana, stakeholders are free to use the legal system to appeal planning decisions. However, DoF's notification to adjacent landowners of upcoming activities, open door policies, annual open houses, and State Forest Stewardship Committee meetings are avenues for resolving grievances prior to legal action.</p> <p>Primary planning documents including management guides and upcoming timber sales, are made available to the public online. The public can also access publications and data on the website or upon request.</p> |
| <p>P5 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.</p> | | |
| <p>C5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</p> | <p>C</p> | |
| <p>5.3.a. Management practices are employed to minimize the loss and/or waste of harvested forest products.</p> | <p>C</p> | <p>Utilization observed on harvest sites during the assessment was good in that mostly branches, tops and forked stems were left on site. This is particularly good given that there is not a strong pulp market in the state.</p> |
| <p>5.3.b. Harvest practices are managed to protect residual trees and other forest resources, including:</p> <ul style="list-style-type: none"> • soil compaction, rutting and erosion are minimized; • residual trees are not significantly damaged to the extent that health, growth, or values are noticeably affected; • damage to NTFPs is minimized during management activities; and • techniques and equipment that minimize impacts to vegetation, soil, and water are used whenever feasible. | <p>C</p> | <p>During 2013 audit observed generally good conformance with BMPs and low levels of residual stand damage.</p> |
| <p>C5.6. The rate of harvest of forest products shall not exceed levels which can be permanently sustained.</p> | | |
| <p>5.6.a. 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"> • documented growth rates for particular sites, and/or acreage of forest types, age-classes and species distributions; • mortality and decay and other factors that affect | <p>C</p> | <p>The 2008-2012 CFI report shows growth exceeding harvest levels by at least 2:1 ratio. Clearly, the State is managing well within the sustained yield parameters.</p> <p>See the 2011 recertification report for additional details regarding conformance with 5.6.a.</p> |

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| <p>net growth;</p> <ul style="list-style-type: none"> • areas reserved from harvest or subject to harvest restrictions to meet other management goals; • silvicultural practices that will be employed on the FMU; • management objectives and desired future conditions. <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 multiple re-entries.</p> | | |
| <p>5.6.b. Average annual harvest levels, over rolling periods of no more than 10 years, do not exceed the calculated sustained yield harvest level.</p> | C | DoF uses 4 year rolling period to ensure that it does not exceed the calculate sustained yield harvest rate. Harvest records for the sites visited show that DoF does not exceed the calculated harvest rate. |
| <p>5.6.c. 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>The combination of even- and uneven-aged management ensures that the FMU includes mixed age classes and species, and that regeneration harvests are effective in securing the next age class of oak-hickory type. Even-aged harvests are mostly done using regeneration openings within single tree selection stands. Non-native pine stands are being regenerated to native hardwood where possible.</p> <p>The goal of maintaining 10% of the FMU in late seral conditions in consistent with some site characteristics, particularly on more mesic to wet-mesic sites with few oak-hickory species and associates.</p> |
| <p>5.6.d. 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> | NA | DoF does not have any significant commercially harvested NTFPs. |
| <p>P6 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.</p> | | |
| <p>C6.1. 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 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.</p> | C | |
| <p>6.1.a. Using the results of <i>credible scientific analysis, best available information</i> (including relevant databases), and local knowledge and experience, an assessment of conditions on the FMU is completed and includes:</p> <p>1) Forest community types and development, size class and/or successional stages, and associated <i>natural disturbance regimes</i>;</p> | C | <p>There have been no changes to the environmental assessment process since 2011 recertification. DoF's Environmental Assessment on the increased emphasis on management and sustainability of oak-hickory communities on the Indiana State Forest System 2008 documents items 1-6 for that community type, which is the dominant community type found in the State Forest System.</p> |

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| <p>2) Rare, Threatened and Endangered (RTE) species and rare ecological communities (including plant communities);</p> <p>3) Other habitats and species of management concern;</p> <p>4) Water resources and associated riparian habitats and hydrologic functions;</p> <p>5) Soil resources; and</p> <p>6) Historic conditions on the FMU related to forest community types and development, size class and/or successional stages, and a broad comparison of historic and current conditions.</p> | | |
| <p>6.1.b. Prior to commencing site-disturbing activities, the forest owner or manager assesses and documents the potential short and long-term impacts of planned management activities on elements 1-5 listed in Criterion 6.1.a.</p> <p>The assessment must incorporate the best available information, drawing from scientific literature and experts. The impact assessment will at minimum include identifying resources that may be impacted by management (e.g., streams, habitats of management concern, soil nutrients). Additional detail (i.e., detailed description or quantification of impacts) will vary depending on the uniqueness of the resource, potential risks, and steps that will be taken to avoid and minimize risks.</p> | C | <p>Short-term site impacts are addressed when writing the resource management plan. Long-term impacts are in environmental assessment and in the Habitat Conservation Plan (HCP). DoF continues making significant progress with USFWS on finalizing the HCP</p> |
| <p>6.1.c. Using the findings of the impact assessment (Indicator 6.1.b), management approaches and field prescriptions are developed and implemented that: 1) avoid or minimize negative short-term and long-term impacts; and, 2) maintain and/or enhance the long-term ecological viability of the forest.</p> | C | <p>Site level management guidelines have been developed for a number of T and E species (Indiana Bat, Timber Rattlesnake). BMP's protect soil resources, riparian habitat, and long-term ecological viability of the forest. During 2013 audit observed good conformance with internal and USFWS Indiana Bat Habitat Guidelines.. The USFWS Guidelines are 'recommended' and are not mandatory.</p> |
| <p>6.1.d. On public lands, assessments developed in Indicator 6.1.a and management approaches developed in Indicator 6.1.c are made available to the public in draft form for review and comment prior to finalization. Final assessments are also made available.</p> | C | <p>All management planning documents (drafts and final versions), including environmental impact studies, the Wildlife action plan, and other assessments are made completely available to the public online. The public can also access publications and data on the website or upon request.</p> <p>Once DoF submits an updated HCP for bat conservation, it is required to undergo public review.</p> |
| <p>C6.2. 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.</p> | C | |
| <p>6.2.a. If there is a likely presence of RTE species as identified in Indicator 6.1.a then either a field survey to verify the species' presence or absence is conducted prior to site-disturbing management activities, or management occurs with the assumption that potential RTE species are present.</p> | C | <p>DoF has a program to protect threatened and endangered species. Training is periodically provided on endangered species identification and management, most notably for Indiana bat habitat. There are 79 state-listed Threatened and Endangered (T and E) animal. DoF participates in state and federal</p> |

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| <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> | | <p>programs to research and protect T and E species.</p> <p>DoF actively uses the Division of Nature Preserves' Heritage Database to screen for T and E species in management areas. If a species is detected in a database query, DoF has its own wildlife biologist to provide guidance on management activities when listed species are found to be present. T and E species locations are identified as part of the process of writing the resource management guide prior to management activities.</p> <p>DoF manages for and protects a diversity of habitat. During 2013 audit observed good conformance with use of Natural Heritage Database and voluntarily follows Indiana bat management guidelines recommended by or in concurrence with the USFWS.</p> |
| <p>6.2.b. When RTE species are present or assumed to be present, modifications in management are made in order to maintain, restore or enhance the extent, quality and viability of the species and their habitats. Conservation zones and/or protected areas are established for RTE species, including those S3 species that are considered rare, where they are necessary to maintain or improve the short and long-term viability of the species. Conservation measures are based on relevant science, guidelines and/or consultation with relevant, independent experts as necessary to achieve the conservation goal of the Indicator.</p> | C | <p>When T and E species are known to occur (by querying the Natural Heritage Data), staff will determine appropriate steps to protect the species. Often T&E species are rare plants that occur in wetland or riparian areas that would not be impacted by timber management. When more active consideration is needed DoF will consult with the biologist or ecologist or review written species- specific management plans to accommodate individual species requirements. Staff consult Natureserve and other resources to search for management guidelines for T and E species.</p> |
| <p>6.2.c. For medium and large public forests (e.g. state forests), forest management plans and operations are designed to meet species' recovery goals, as well as landscape level biodiversity conservation goals.</p> | C | <p>DoF follows its interim guidelines on the conservation of the Indiana Bat. These guidelines were developed by its biologist in consultation with federal agencies. Eventually, DoF's intent is for an updated HCP to address Indiana Bat conservation.</p> |
| <p>6.2.d. Within the capacity of the forest owner or manager, hunting, fishing, trapping, collecting and other activities are controlled to avoid the risk of impacts to vulnerable species and communities (See Criterion 1.5).</p> | C | <p>DoF field staff and Conservation Officers patrol the FMU to detect unauthorized activities.</p> |
| <p>C6.3. 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.</p> | C | |
| <p>6.3.a.1. The forest owner or manager maintains, enhances, and/or restores under-represented successional stages in the FMU that would naturally occur on the types of sites found on the FMU. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is managed to enhance and/or restore old growth characteristics.</p> | C | <p>DoF has a goal to maintain 10% of the forest in the underrepresented early successional stage. Nature Preserves are being identified and protected on DoF property. DoF strategic plan is to maintain 10% of the forest in an older forest condition. Areas designated for older forest condition include:</p> <ul style="list-style-type: none"> • Nature Preserves on State Forests • Control units (no harvest) of Hardwood Ecosystem Experiment (HEE) • 'No harvest zone' around active Indiana bat hibernacula on state forests • Back Country Areas (BCA) located on Morgan-Monroe/Yellowwood, Jackson-Washington, and Clark state forests • Old growth areas and associated 300 foot buffer |

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| | | <p>zone</p> <p>As confirmed during the audit, practices of long rotations and lower intensity single tree selection harvests are moving stands to a late seral condition. However, the written guidance for managing BCA's is lacking a provision that ensures some over-mature trees are retained as part of the selection harvests. The audit did not uncover any BCA's that were lacking in over-mature trees, but want to ensure that written procedures are consistent with managing for late seral conditions (Observation 2013.3).</p> |
| <p>6.3.a.2. When a rare ecological community 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, conservation zones and/or protected areas are established where warranted.</p> | <p>C</p> | <p>Most rare ecological communities have been protected as Nature Preserves. Once a Nature Preserve is established, management decisions are made by or in consultation with the Division of Nature Preserves. DoF has a policy to allow management to occur in rare ecological communities if it maintains or enhances the viability of the community.</p> |
| <p>6.3.a.3. When they are present, management maintains the area, structure, composition, and processes of all Type 1 and Type 2 old growth. 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 ownership. Timber harvest is permitted in situations where:</p> <ol style="list-style-type: none"> 1. Old growth forests comprise a significant portion of the tribal ownership. 2. A history of forest stewardship by the tribe | <p>C</p> | <p>See response to CAR 2011.4. and Obs 2013.3.</p> |

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| <p>exists.</p> <ol style="list-style-type: none"> 3. High Conservation Value Forest attributes are maintained. 4. Old-growth structures are maintained. 5. Conservation zones representative of old growth stands are established. 6. Landscape level considerations are addressed. 7. Rare species are protected. | | |
| <p>6.3.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> | C | <p>IDNR DIVISION OF FORESTRY STRATEGIC PLAN 2008-2013 has a goal to provide a range of forest habitats that will provide suitable conditions for well-distributed animal populations. See also comments on late and early seral habitat in 6.3.a.1.</p> <p>DoF’s strategic plan expires at the end of this year. In the absence of a new plan, DoF is continuing the strategies outlined in the 2008-2013 Strategic Plan.</p> |
| <p>6.3.c. Management maintains, enhances and/or restores the plant and wildlife habitat of Riparian Management Zones (RMZs) to provide:</p> <ol style="list-style-type: none"> a) habitat for aquatic species that breed in surrounding uplands; b) habitat for predominantly terrestrial species that breed in adjacent aquatic habitats; c) habitat for species that use riparian areas for feeding, cover, and travel; d) habitat for plant species associated with riparian areas; and, e) stream shading and inputs of wood and leaf litter into the adjacent aquatic ecosystem. | C | <p><u>Indiana Logging and Forestry Best Management Practices: BMP Field Guide</u> (BMP Field Guide) is used by field foresters to guide the protection of RMZs. The buffer zones established in RMZs ensure upland-lowland connectivity (a, b, and c) and maintenance of riparian vegetation and soils (d and e). Field visits in 2013 confirmed conformance with 6.3.c.</p> |
| <p>Stand-scale Indicators</p> <p>6.3.d Management practices maintain or enhance plant species composition, distribution and frequency of occurrence similar to those that would naturally occur on the site.</p> | C | <p>Indiana DoF has an increased emphasis on management and sustainability of oak-hickory communities due to their decline in the landscape (Indiana State Forests Environmental Assessment 2008).</p> <p>Field sites visited in 2013 confirmed DoF’s work to maintain and regenerate oak hickory type.</p> |
| <p>6.3.e. 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 served by non-local sources. Native species suited to the site are normally selected for regeneration.</p> | C | <p>Seedlings planted in the forest are grown in the local nursery. Confirmed at Stop 4: Compartment 19 Duckworth Rd and through interviews with DoF State Forester.</p> |
| <p>6.3.f. 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> <ol style="list-style-type: none"> a) large live trees, live trees with decay or declining health, snags, and well-distributed coarse down and dead woody material. Legacy trees where present are not harvested; and b) vertical and horizontal complexity. <p>Trees selected for retention are generally representative of the dominant species found on the site.</p> | C | <p>DoF has an excellent guide “Management guidelines for compartment-level wildlife habitat features” that field foresters use to maintain or enhance site-level habitat components, such as large live trees, declining trees, and snags.</p> <p>During 2013 audit, confirmed guidelines are being followed.</p> |
| <p>6.3.g.1 In the Southeast, Appalachia, Ozark-Ouachita, Mississippi Alluvial Valley, and Pacific Coast Regions, when</p> | C | <p>DoF primarily employs uneven-aged management practices, such as individual tree selection and group</p> |

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| <p>even-aged systems 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>selection. However, DoF practices even-aged management on an experimental basis. These are well-documented in the HEE report.</p> <p>Even-aged management practices include clearcuts and shelterwood systems. No even-aged management of size sufficient to warrant retention was viewed during the 2013 audit. DoF does not require green tree retention for openings under 20 acres.</p> |
| <p>6.3.g.2 Under very limited situations, the landowner or manager has the option to develop a qualified plan to allow minor departure from the opening size limits described in Indicator 6.3.g.1. A qualified plan:</p> <ol style="list-style-type: none"> 1. Is developed by qualified experts in ecological and/or related fields (wildlife biology, hydrology, landscape ecology, forestry/silviculture). 2. Is based on the totality of the best available information including peer-reviewed science regarding natural disturbance regimes for the FMU. 3. Is spatially and temporally explicit and includes maps of proposed openings or areas. 4. Demonstrates that the variations will result in equal or greater benefit to wildlife, water quality, and other values compared to the normal opening size limits, including for sensitive and rare species. 5. Is reviewed by independent experts in wildlife biology, hydrology, and landscape ecology, to confirm the preceding findings. | <p>NA</p> | <p>There are no even-aged management restrictions in the Lake States/ Central Hardwood region.</p> |
| <p>6.3.h. The forest owner or manager assesses the risk of, prioritizes, and, as warranted, develops and implements a strategy to prevent or control invasive species, including:</p> <ol style="list-style-type: none"> 1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems; 2. implementation of management practices that minimize the risk of invasive establishment, growth, and spread; 3. eradication or control of established invasive populations when feasible: and, 4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species. | <p>C</p> | <p>As described in the response to CAR 2011.5, DoF has implemented various steps for identifying and controlling invasive plant species. The auditor found that there is an opportunity for additional measures to improve conformance with 6.3.h. See Observation 2013.1.</p> |
| <p>6.3.i. In applicable situations, the forest owner or manager identifies and applies site-specific fuels management practices, based on: (1) natural fire regimes, (2) risk of wildfire, (3) potential economic losses, (4) public safety, and (5) applicable laws and regulations.</p> | <p>C</p> | <p>At the 2011 recertification audit, DoF provided the audit team with well written and well planned site-level fire plans that are primarily conducted in oak-hickory understories to control competing species. This regime mimics natural periodic ground fires that historically occurred in this habitat type. Very little prescribed burning has been completed on the State</p> |

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| | | Forests. |
| C6.4. 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. | C | |
| <p>6.4.a. The forest owner or manager documents the ecosystems that would naturally exist on the FMU, and assesses the adequacy of their representation and protection in the <i>landscape</i> (see Criterion 7.1). The assessment for medium and large forests include some or all of the following: a) <i>GAP analyses</i>; b) collaboration with state natural heritage programs and other public agencies; c) regional, landscape, and watershed planning efforts; d) collaboration with universities and/or local conservation groups.</p> <p>For an area that is not located on the FMU to qualify as a Representative Sample Area (RSA), it should be under permanent protection in its natural state.</p> | C | In 2008, DoF worked with Division of Nature Preserves to complete a community gap analysis in natural region sections that contain state forests. This analysis included all state forests and considered the natural communities that were expected to be found in each natural region section and whether protected samples existed and to what extent. Further coordination with DNP personnel developed a listing of known sites on state forests that would be further evaluated to serve as RSAs. All state forests were considered during this process. In 2009, DoF identified a continuous, on-going process to identify natural communities on state forests to serve as future candidate RSAs, where needed. A description of this process was included in the DoF response to CAR 2008.1 and addressed during the 2009 surveillance audit. DoF field personnel from all state forests received training on RSA surveys during a 2009 property section meeting and instructed on this process. |
| <p>6.4.b. Where existing areas within the landscape, but external to the FMU, are not of adequate protection, size, and configuration to serve as representative samples of existing ecosystems, forest owners or managers, whose properties are conducive to the establishment of such areas, designate ecologically viable RSAs to serve these purposes.</p> <p>Large FMUs are generally expected to establish RSAs of purpose 2 and 3 within the FMU.</p> | C | See 6.4.a. |
| <p>6.4.c. Management activities within RSAs are limited to low impact activities compatible with the protected RSA objectives, except under the following circumstances:</p> <ul style="list-style-type: none"> a) harvesting activities only where they are necessary to restore or create conditions to meet the objectives of the protected RSA, or to mitigate conditions that interfere with achieving the RSA objectives; or b) road-building only where it is documented that it will contribute to minimizing the overall environmental impacts within the FMU and will not jeopardize the purpose for which the RSA was designated. | C | DoF has a policy to limit management activities in RSAs to those that will improve the desired ecological condition of the stand. |
| 6.4.d. The RSA assessment (Indicator 6.4.a) shall be periodically reviewed and if necessary updated (at a minimum every 10 years) in order to determine if the need for RSAs has changed; the designation of RSAs (Indicator 6.4.b) is revised accordingly. | C | 10 years have not passed since the last RSA assessment. |
| 6.4.e. Managers of large, contiguous public forests establish and maintain a network of representative protected areas sufficient in size to maintain species dependent on interior core habitats. | C | See 6.4.a |
| C6.5. Written guidelines shall be prepared and | C | |

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| <p>implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.</p> | | |
| <p>6.5.a. The forest owner or manager has written guidelines outlining conformance with the Indicators of this Criterion.</p> | C | <p>The State of Indiana BMP manual and timber harvest contracts contain information that details the specification for conformance to this criterion. Written guidelines are also included in the State Forest Procedures Manual (http://www.in.gov/dnr/forestry/5197.htm).</p> |
| <p>6.5.b. Forest operations meet or exceed Best Management Practices (BMPs) that address components of the Criterion where the operation takes place.</p> | C | <p>DoF's implementation of BMPs meets or exceeds the components of this criterion on timber harvest operations and trail management. See indicators for more information.</p> |
| <p>6.5.c. 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"> • 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. • Disturbance of topsoil is limited to the minimum necessary to achieve successful regeneration of species native to the site. • Rutting and compaction is minimized. • Soil erosion is not accelerated. • Burning is only done when consistent with natural disturbance regimes. • Natural ground cover disturbance is minimized to the extent necessary to achieve regeneration objectives. • Whole tree harvesting on any site over multiple rotations is only done when research indicates soil productivity will not be harmed. • Low impact equipment and technologies is used where appropriate. | C | <p>Whole tree skidding is rarely, if at all, practiced. Thus slash is left where trees are felled. Slash may be used to implement drainage BMPs (i.e., for use as riprap, corduroy, etc.). There was little disturbance to topsoil as most operations had both cable and grapple skidding teams to haul logs. Observed generally good conformance with BMP's. One site had excessive rutting and another site had residual stand damage. See Obs 2013.2.</p> |
| <p>6.5.d. 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"> • access to all roads and trails (temporary and permanent), including recreational trails, and off-road travel, is controlled, as possible, to minimize ecological impacts; • road density is minimized; • erosion is minimized; • sediment discharge to streams is minimized; • there is free upstream and downstream passage for aquatic organisms; • impacts of transportation systems on wildlife | C | <p>Access to trails and roads is controlled via gated access wherever possible and consistent with management objectives. Unauthorized horse trails involve a delicate balance of stakeholder consultation and upkeep of authorized trails. Unauthorized trails, however, are being managed to prevent their density from expanding.</p> <p>DoF maintains a permanent network of roads to use to conducting management activities. Skid trails are reused where possible and secondary trail creation is avoided through use of cable and grapple skidders.</p> <p>Use of water bars and broad-based dips helps to reduce sediment discharge directly into streams. Stream crossings are designed to allow free passage of aquatic organisms. As the road network is rarely modified, impacts to wildlife and corridors are</p> |

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| <p>habitat and migration corridors are minimized;</p> <ul style="list-style-type: none"> • area converted to roads, landings and skid trails is minimized; • habitat fragmentation is minimized; • unneeded roads are closed and rehabilitated. | | <p>minimized. DoF plans skid trails and landings keeping in mind future management activities. DoF has road closure BMPs and other transportation system BMPs described in the BMP and procedures manuals.</p> <p>Access is covered in section L of the procedures manual (“Forest Access”). The rest of the transportation system BMPs are documented in the “Forest Roads” section of the BMPs (http://www.in.gov/dnr/forestry/2868.htm).</p> |
| <p>6.5.e.1. In consultation with appropriate expertise, the forest owner or manager implements written Streamside Management Zone (SMZ) buffer management guidelines that are adequate for preventing environmental impact, and include protecting and restoring water quality, hydrologic conditions in rivers and stream corridors, wetlands, vernal pools, seeps and springs, lake and pond shorelines, and other hydrologically sensitive areas. The guidelines include vegetative buffer widths and protection measures that are acceptable within those buffers.</p> <p>In the Appalachia, Ozark-Ouachita, Southeast, Mississippi Alluvial Valley, Southwest, Rocky Mountain, and Pacific Coast regions, there are requirements for minimum SMZ widths and explicit limitations on the activities that can occur within those SMZs. These are outlined as requirements in Appendix E.</p> | C | <p>As the Lake States/ Central Hardwood region has no recognized FSC regional SMZ buffer requirements, DoF defaults to SMZ buffer width established in the BMP manual and, where applicable, any forest-specific restrictions established through county or township ordinances. All harvests observed in the 2013 evaluation met these SMZ requirements.</p> |
| <p>6.5.e.2. Minor variations from the stated minimum SMZ widths and layout for specific stream segments, wetlands and other water bodies are permitted in limited circumstances, provided the forest owner or manager demonstrates that the alternative configuration maintains the overall extent of the buffers and provides equivalent or greater environmental protection than FSC-US regional requirements for those stream segments, water quality, and aquatic species, based on site-specific conditions and the best available information. The forest owner or manager develops a written set of supporting information including a description of the riparian habitats and species addressed in the alternative configuration. The CB must verify that the variations meet these requirements, based on the input of an independent expert in aquatic ecology or closely related field.</p> | NA | <p>The SCS team uncovered no variations from minimum SMZ widths established in the recommended BMPs.</p> |
| <p>6.5.f. Stream and wetland crossings are avoided when possible. Unavoidable crossings are located and constructed to minimize impacts on water quality, hydrology, and fragmentation of aquatic habitat. Crossings do not impede the movement of aquatic species. Temporary crossings are restored to original hydrological conditions when operations are finished.</p> | C | <p>Stream crossings on DoF meet BMPs. BMPs include avoiding crossings when possible and to install appropriate BMPs based on stream channel size and frequency of peak flow events. Crossings observed on DoF allowed the free movement of aquatic species. Temporary crossings are restored and debris removed to allow flow.</p> |
| <p>6.5.g. Recreation use on the FMU is managed to avoid negative impacts to soils, water, plants, wildlife and wildlife habitats.</p> | C | <p>DoF allows several kinds of recreation, including hiking, camping, hunting, mountain biking, and horseback riding. DoF has postings near state forest offices on what types of activities require permits and which do not.</p> |
| <p>6.5.h. Grazing by domesticated animals is controlled to protect in-stream habitats and water quality, the species composition and viability of the riparian vegetation, and</p> | C | <p>No grazing by domesticated animals is permitted on DoF forestland. No evidence of grazing was undercover during the 2013 audit.</p> |

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| the banks of the stream channel from erosion. | | |
| C6.6. 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. | C | |
| 6.6.a. No products on the FSC list of Highly Hazardous Pesticides are used (see FSC-POL-30-001 EN FSC Pesticides policy 2005 and associated documents). | C | The SCS audit team received a complete list of chemicals in use on DoF and none are on the FSC-prohibited list. |
| 6.6.b. All toxicants used to control pests and competing vegetation, including rodenticides, insecticides, herbicides, and fungicides are used only when and where non-chemical management practices are: a) not available; b) prohibitively expensive, taking into account overall environmental and social costs, risks and benefits; c) the only effective means for controlling invasive and exotic species; or d) result in less environmental damage than non-chemical alternatives (e.g., top soil disturbance, loss of soil litter and down wood debris). If chemicals are used, the forest owner or manager uses the least environmentally damaging formulation and application method practical. Written strategies are developed and implemented that justify the use of chemical pesticides. Whenever feasible, an eventual phase-out of chemical use is included in the strategy. The written strategy shall include an analysis of options for, and the effects of, various chemical and non-chemical pest control strategies, with the goal of reducing or eliminating chemical use. | C | Chemical use in 2012-2013 was primarily aimed at treating invasive exotic species such as Ailanthus and Japanese knotweed, as well as general TSI – girdle and cut stump treatments. Evidence of using the least environmentally damaging formulation was seen at Greene Sullivan State Forest where difficult to kill Japanese knotweed was treated with Garlon and other species were treated with less damaging glyphosate. |
| 6.6.c. Chemicals and application methods are selected to minimize risk to non-target species and sites. When considering the choice between aerial and ground application, the forest owner or manager evaluates the comparative risk to non-target species and sites, the comparative risk of worker exposure, and the overall amount and type of chemicals required. | C | No aerial application occurs on DoF. All application is by hand spray. State workers who apply chemicals are licensed applicators and are instructed to follow the label guidelines for each chemical. MSDS are also available for each chemical, which address the potential risks. Workers must record the amount and type of all chemicals. The amount of chemicals applied on each state forest is reported and summarized at the central office on an annual basis. |
| 6.6.d. Whenever chemicals are used, a written prescription is prepared that describes the site-specific hazards and environmental risks, and the precautions that workers will employ to avoid or minimize those hazards and risks, and includes a map of the treatment area. Chemicals are applied only by workers who have received proper training in application methods and safety. They are made aware of the risks, wear proper safety equipment, and are trained to minimize environmental impacts on non-target species and sites. | C | DoF pesticide use record sheet includes notes on effectiveness of treatment. These records are sent annually to the Forest Properties Specialist for review and chemical use reporting to certifying bodies. Verified for Greene Sullivan State Forest. State workers who apply chemicals are licensed applicators and are instructed to follow the label guidelines for each chemical. MSDS are also available for each chemical, which address the potential risks. |
| 6.6.e. If chemicals are used, the effects are monitored and the results are used for adaptive management. Records are kept of pest occurrences, control measures, and incidences | C | DoF documents applications in a chemical use log. Chemicals are only used for invasive plants and competing vegetation. Observed records being kept |

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| of worker exposure to chemicals. | | for treatment of Japanese knotweed at Greene Sullivan State Forest. |
| C6.7. 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. | C | |
| 6.7.a. The forest owner or manager, and employees and contractors, have the equipment and training necessary to respond to hazardous spills. | C | Refer to State of Indiana Laws at the Department of Environmental Management. Contracts contain reference to compliance with state and federal laws, which implies spill procedures. Contractors interviewed understood spill response procedures and were able to demonstrate spill kits on site. |
| 6.7.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. | C | See 6.7.a. |
| 6.7.c. 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. | C | Gas and lubricant containers were stored in a central location, typically near landing areas well away from riparian zones and other sensitive features. SCS auditors observed idle equipment with no evidence of persistent leaks. |
| C6.8. 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. | C | |
| 6.8.a. 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. | C | Biological control agents are no longer used on the forest. There has been no recent use of biological control on State Forest properties. |
| 6.8.b. If biological control agents are used, they are applied by trained workers using proper equipment. | C | See 6.8.a. |
| 6.8.c. 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 | See 6.8.a. |
| 6.8.d. Genetically Modified Organisms (GMOs) are not used for any purpose. | C | There is no use of GMOs on the FMU. |
| C6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts. | C | |
| 6.9.a. 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 | DoF has use of seed mixes detailed in its procedures manual and application in the BMP manual. DoF generally uses winter wheat or oats depending on the season (coldness) for closeouts. However, with the increased incidence of Japanese Stiltgrass (exotic) on some State Forests, DoF has started using fescues (exotic), especially the shorter varieties as they are |

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| | | more competitive with the Stiltgrass while allowing native tree species to regenerate. There has been some research to show that Kentucky 31 fescue can crowd out stiltgrass. |
| 6.9.b. If exotic species are used, their provenance and the location of their use are documented, and their ecological effects are actively monitored. | C | State Forest Procedure Manual Section W: Pest and Invasive Species Management with Appendix of recommended seeding mixtures (CAR 2011.5 State Forest Procedure Manual Section W.doc). |
| 6.9.c. 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 | As the species used to re-seed landings and other exposed areas, they tend to remain at the planted location. Like many state agencies, DoF discontinued the use of some seed mixes once they were proven to be invasive. |
| C6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion: a) Entails a very limited portion of the forest management unit; and b) Does not occur on High Conservation Value Forest areas; and c) Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit. | C | |
| 6.10.a Forest <i>conversion</i> to non-forest land uses does not occur, except in circumstances where conversion entails a very limited portion of the forest management unit (note that Indicators 6.10.a, b, and c are related and all need to be conformed with for conversion to be allowed). | C | DoF is aware of the conversion requirements and has communicated with SCS over upcoming areas that may be subject to conversion. During 2013 audit visited Greene Sullivan Compartment 4, Tract 3 that may (DoF is still determining how much to re-plant) involve a limited area of conversion to grass/early successional habitat as part of a strip mine hazard site reclamation project. |
| 6.10.b Forest <i>conversion</i> to non-forest land uses does not occur on high conservation value forest areas (note that Indicators 6.10.a, b, and c are related and all need to be conformed with for conversion to be allowed). | C | The areas converted are very small in comparison to the rest of the FMU and are on degraded sites. Visited Greene Sullivan Compartment 4, Tract 3 that meets 6.10.b. |
| 6.10.c Forest <i>conversion</i> to non-forest land uses does not occur, except in circumstances where conversion will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit (note that Indicators 6.10.a, b, and c are related and all need to be conformed with for conversion to be allowed). | C | Greene Sullivan Compartment 4, Tract 3. |
| 6.10.d Natural or semi-natural stands are not converted to plantations. Degraded, semi-natural stands may be converted to restoration plantations. | C | No natural forest areas have been converted to plantations. DoF's management can be characterized as natural forest management. |
| 6.10.e Justification for land-use and stand-type conversions is fully described in the long-term management plan, and meets the biodiversity conservation requirements of Criterion 6.3 (see also Criterion 7.1.I). | C | This may need to be further examined during future evaluations as there are areas where 3 rd parties own the Oil, Gas and Mineral (OGM) rights, as well as places where the state may own the rights. |
| 6.10.f Areas converted to <i>non-forest use</i> for facilities associated with subsurface mineral and gas rights transferred by prior owners, or other conversion outside the control of the certificate holder, are identified on maps. The forest owner or manager consults with the CB to determine if removal of these areas from the scope of the certificate is warranted. To the extent allowed by these transferred rights, the forest owner or manager exercises control over the location of surface disturbances in a manner that minimizes adverse environmental and social impacts. If the certificate holder at one point held these | C | In regards to subsurface property rights, the majority of coal rights are owned by others at Greene-Sullivan. There are outstanding subsurface rights on some State Forests tracts. DoF tries to get surface rights as much as possible. There are not very many areas where mining is an issue on the State Forests. Rights-of-way for federal and state highways and RxR tracks are largely out of the control of DoF. DoF should keep SCS informed of conversion activities. |

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| rights, and then sold them, then subsequent conversion of forest to non-forest use would be subject to Indicator 6.10.a-d. | | |
| <p>P9 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.</p> <p>High Conservation Value Forests are those that possess one or more of the following attributes:</p> <ul style="list-style-type: none"> a) Forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g., endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance b) Forest areas that are in or contain rare, threatened or endangered ecosystems c) Forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control) d) Forest areas fundamental to meeting basic needs of local communities (e.g., subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities). | | |
| C9.4. Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes. | C | |
| 9.4.a. The forest owner or manager monitors, or participates in a program to annually monitor, the status of the specific HCV attributes, including the effectiveness of the measures employed for their maintenance or enhancement. The monitoring program is designed and implemented consistent with the requirements of Principle 8. | C | Division of Nature Preserves undertakes monitoring of HCVF. See response to CAR 2011.15. |
| 9.4.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. | C | DoF continues to monitor HCV related to Indiana bat. Management measures (e.g., harvest timing) have been modified where needed. |
| <p>P10 Plantations shall be planned and managed in accordance with Principles and Criteria 1-9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.</p> <p>Based on the field evidence examined during the 2011 assessment, SCS has determined that DoF's forest management system does not meet the FSC definition of plantation management. Thus, Principle 10 is wholly non-applicable.</p> | | |

Appendix 6 – Chain of Custody Indicators for FMEs

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