

**Forest Management and Stump-to-Forest Gate Chain-of-Custody
Certification Evaluation Report for the:**

**Indiana State Forests
under the
Management of the
INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY**

**Conducted under auspices of the SCS Forest Conservation Program
SCS is an FSC Accredited Certification Body**

**CERTIFICATION REGISTRATION NUMBER
SCS-FM/COC-00099N**

**Under the
SCS Forest Conservation Program
(An FSC-Accredited Certification Program)**

**Date of Field Audit: 26-28 October 2009
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Finalized: 21 December 2009**

**Scientific Certification Systems
2200 Powell Street
Suite 725
Emeryville, CA 94608**

SCS Contact: Dave Wager, Program Director
dwager@scscertified.com

Client Contact: John Seifert- jseifert@dnr.IN.gov

Section 2.0 (Surveillance Decision and Public Record) will be made publicly available on the SCS website (www.scscertified.com) no later than 60 days after the report is finalized.

1.0 GENERAL INFORMATION

1.1 BACKGROUND INFORMATION

- Source name: Indiana DNR- Division of Forestry
- Contact person: John Seifert
- Address: 402 W. Washington St, Rm W296, Indianapolis, IN
- Telephone: 317-232-4105
- E-mail: Jseifert@dnr.in.gov
- Certified products: Quercus alba (White oak), Quercus rubra (Northern red oak), Quercus velutina (Black oak), Liriodendron tulipifera (yellow-poplar), Acer saccharum (Sugar maple), Carya spp (Hickory), and other merchantable spp.
- Number of Acres/hectares certified: 156,000 acres
- Biome: Temperate hardwood
- Tenure: Public

1.2 General Background

The 2009 annual audit was conducted by David Capen and Norman Boatwright. The audit included an opening meeting at the Harrison-Crawford State Forest, field assessments on this forest and the Clark State Forest, and a closing meeting at Clark State Forest. Six staff members from the DoF Central Office were present, as were resource management staff from the two state forests.

This report covers the third annual audit, following the 2007 certification, of the Division of Forestry. The audit was conducted pursuant to the FSC guidelines for annual audits as well as the terms of the forest management certificate awarded by Scientific Certification Systems in 2007 (SCS-FM/COC-00099N). All certificates issued by SCS under the aegis of the Forest Stewardship Council (FSC) require annual audits to ascertain ongoing compliance with the requirements and standards of certification. The full report of the initial evaluation is available on the SCS website.

http://www.scscertified.com/forestry/forest_certclients.html.

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;
- Follow-up inquiry into any issues that may have arisen since the award of certification or prior audit;
- 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.

At the time of the October 2009 annual audit, there was one open Corrective Action Request (CARs). The status of DoF's response to that CAR was assessed as part of this annual audit (see discussion below for a listing of the CAR and its disposition as a result of this annual audit).

1.3 Guidelines/Standards Employed

For this annual audit, the SCS audit team evaluated the extent of conformance with the FSC Lake States and Central Hardwoods Standard, V. 3.0.

2.0 SURVEILLANCE DECISION AND PUBLIC RECORD

2.1 Assessment Dates

The SCS audit team conducted the field portion of the annual audit 26-28 October 2009, including on-site inspections of field operations as well as interviews with DoF management and field personnel. In addition to the 5 person-days spent on-site, the audit team spent an additional 2 person days on audit planning, document review, stakeholder consultations, and other tasks related to the 2009 annual audit.

2.2 Assessment Personnel

For this annual audit, the team was comprised of David Capen, FSC Lead Auditor, and Norman Boatwright, SFI Lead Auditor.

David E. Capen, a member of the four-person team that conducted the initial FSC and SFI assessment of the Indiana State Forests in October 2006, conducted this annual audit. David is a Professor Emeritus in the Rubenstein School of Environment and Natural Resources at the University of Vermont. He has a B.S.F. degree in Forestry from the University of Tennessee, an M.S. degree in Wildlife Management from the University of Maine, and a Ph.D. in Wildlife Science from Utah State University. He has been a faculty member at the University of Vermont since 1976, having recently retired from teaching. David is a Certified Wildlife Biologist, and

was formerly a Certified Forester (2002-2008). He has conducted numerous FSC audits in Massachusetts, Maine, Michigan, New York, and Minnesota.

Norman Boatwright currently manages the Environmental Services Division of Milliken Forestry Services that handles typical forestry consulting, SFI Audits, Phase I Environmental Site Assessments, Forest Soil Mapping, Wetland Delineation, and other Biological Services. He has over twenty-eight years experience in intensive forest management, seventeen years experience in environmental services and seven years experience in SFI auditing. He has conducted Phase I Assessments on over two hundred and fifty projects covering 2,000,000 acres, ESA and Endangered Species Assessment on timberland across the South, and managed soil mapping projects over 1.3 million acres. From 1985-1999, he was Division Manager at Canal Forest Resources, Inc. and was responsible for all forest management activities on about 90,000 acres of timberland in eastern South Carolina. Duties included budgeting and implementing land and timber sales, site preparation, planting, best management practices, road construction, etc. Norman is a Qualified Lead Auditor under the NSF-ISR SFI Program with extensive experience auditing procurement and land management organizations.

2.3 Assessment Process

The following general steps were undertaken as part of the 2009 audit:

- Review of full assessment report from 2007 and 2008 audit report;
- Review of information supplied by Indiana DoF;
- Completion of the field audit;
- Synthesis of findings and judging performance relative to the FSC Lake States Standard;
- Presentation of results;
- Preparation of the written certification evaluation report

The following documents were reviewed before, during, and after the audit:

- Environmental Assessment, Indiana State Forests (Dec 2008)
- Annual Newsletter, Harrison-Crawford State Forest
- DOF Timber Sale Summary 2008-2009
- Forest Inventory of Property Program Lands
- Monitoring Results, Forestry Best Management Practices, 1996-2008
- Representative Ecological Communities, Indiana DOF
- Management Guidelines for 11 sites visited on two state forests
- Stand-level guidelines for wildlife on state forests

The field portion of the audit included a broad array of field sites designed to illustrate a cross-section of stand types and treatments, focusing on harvests and other site disturbing activities

conducted within the last two years. During the field audit, the SCS auditors engaged in extensive interviews with DoF staff and contractors.

26 October 2009

Opening Meeting. Harrison-Crawford State Forest (John Seifert, Dan Ernst, Carl Hauser, John Friedrich, AJ Ariens, Scott Haulton, Dwayne Sieg , Wayne Werne, Christine Martin)

- *Review of information submitted for SFI performance: standards for planting stock; size, shape, and placement of clearcuts; use of regional analyses in support of forestry programs; public outreach and education.*
- *Discussion of harvest volumes for 2008-2009.*
- *Progress on implementation of gap analysis for representative ecological communities.*
- *New management guidelines for wildlife habitat features.*
- *Indiana bat recovery plan and DoF's Environmental Assessment for Indiana's State Forests*
- *Review of field itinerary*

Field Sites Visited

Compartment 19-Tracts 1&3. *Sale date in 2006; harvested in 2007; contractor was Phil Etiennes, a large operator and "a good one." Winter harvest (most are on this forest because of Indiana Bat restrictions); objective was improvement of stand conditions; some of the largest trees were left because of their vigor; small clearcuts in appropriate places to encourage age and species diversity; TSI with herbicides in 2008-2009. Dwayne Sieg was the forester. BMP monitoring indicates that more waterbars should have been installed; horse trails have contributed to erosion. The pre-harvest assessment document is quite thorough, with descriptions of access, boundaries, history of the site, historic sites, natural heritage review, current description, soils (in detail), recreation, geology, wildlife, plantations, and silvicultural prescription. Also, an analysis of large trees left for Indiana Bats (for selected species, 5 snags/acre >9 inches and 1 snag/acre >19 inches.)*

Nature Preserve—Post oak—red cedar community. *260-acre preserve managed by DNP; burned frequently to maintain the savannah composition of the area. Crews working on firelines.*

Compartment 28-Tract 8. *Marked and sold, Benham Bros Cattle Co. Three different stands, 71 acres total, each with detailed historical description and prescription. Harvest was mostly a selection or group selection harvest, followed up by TSI. Two small clearcuts, with retention, were made to increase diversity. Skid trails, landings, and road were nicely closed out. Wayne Werne was the forester; his pre- and post harvest notes are extensive.*

Compartment 28-Tract 5. 169-acres tract harvested in winter 2008-2009 by Phil Etiennes. This tract attracted archaeological interest because of chips found by the forester in a horse trail. DOF's archaeologist, A.J. Ariens, evaluated the site and found "lithic scatter." Trail was re-routed to avoid the area. Harvest was typical of others—a light touch, follow-up TSI, and careful close-out of trails, landing, and road. The only BMP issue here was damaged inflicted by horse trails; after the timber harvest, restoration of skid trail repaired much of the horse damage, although a side trail still shows serious erosion. On this property, State Parks is responsible for horse trail maintenance. Wayne Werne was the forester.

Compartment 30-T9. Marked hardwood stand where TSI work was done in summer 2009. Large *Ailanthus* marked to cut (or leave) during the harvest. Operators are not obligated to cut such trees; only if they want them. Otherwise DOF crews will return.

Leavenworth Nature Preserve. Three small clearcuts to remove planted white pine, Virginia pine, and shortleaf pine from an otherwise, post oak barrens community. DOF is conducting the harvest, but DNP will do the remainder of the management of this parcel. Frequent controlled burning is part of the management. All trees were removed from the cuts; in the largest, tops and limbs were piled to be burned in an effort to get a clean site for fire species.

27 October 2009

Harrison-Crawford State Forest:

Compartment 4, Tract 9, 10. 56 acres comprising four clearcuts dominated by white, Virginia, and red pines. Harvest has not begun, but contract has been let to Virgil Werner. Difficult access, with a ford across a stream (permits approved for this), steep hillside (cave entrance that has been marked on tract maps), and small area for landing. All trees will be chipped. One of the clearcuts is 23 acres, thus a requirement to leave an island 5% of the area of the cut, so 1.18-acres island was marked, containing some moderate-sized yellow poplar. Clearcuts were laid out in very irregular shapes, on purpose, to enhance diversity. Christine Martin was the forester.

Compartment 13, Tracts 3, 4, 5, and 6. Salvage harvest, 432 acres. Wind event in December 2006 damaged a large area of this compartment. Two loggers were contracted; one did a poor job with lots of rutting, trash on the landing, etc. He left the site, did not return for some of his logs, and forfeited the deposit. DOF brought in a dozer to repair the damage. Site looks fine now, with plenty of residual BA.

Clark State Forest: (Walt Zak, Brad Steward, Greg Roeder)

Compartment 10, Tracts 9, 13. 168 acres, harvest just completed, equipment on the site, but all close-out work has been done by contractor's dozer. Darlage and Lambring was the contractor. A storm created damage during the contract period, so the logger was offered the additional

salvage harvest. Virginia and white pines and yellow poplar made up most of the BA. Some of the pine was removed by creating openings, with retention, but the rest of the harvest was of marked trees. Greg Roeder was the forester.

Compartment 9, Tract 1 and 3. 54 acres marked for harvest; D&L logging won the bid. Mixed species harvest, but some nice trees marked. Objective was stand improvement and reduction of stocking level. Challenging stream crossing, steep hillsides, avoidance of small stream. Greg Roeder was the forester. Discussion on this site of oversight of stream crossing (John Friedrich visits each site before harvest), post-harvest inspection as well. Also, a good place to look for a marked boundary between state forest and adjacent private land—walked this marked boundary for some distance.

Compartment 11, Tract 1. An old homesite on this tract resulted in a visit by A.J. Ariens; a protective zone was established to protect the site. In addition, the site of the landing was moved to a different location. Landing was not seeded when closed, despite a recommendation to return and do so; a small bit of erosion and no ground cover, even though two growing seasons since harvest. Mostly a stand improvement harvest, but one ca 4-acre clearcut that is regenerating to dense yellow poplar and black cherry.

Compartment 4, Tracts 11, 12. 272 acres harvested by Worley Lumber in early 2009. Our visit to this tract was brief, but it was obvious that the harvest met the intended goal of stand improvement; also post-harvest TSI had been conducted during summer 2009, by contract with a registered forester.

28 October 2009

Clark State Forest. Driving tour of forest to see recreational and educational initiatives. Trail riding on horses is a major use of the forest; most fire trails and other trails have been graveled to maintain surface for year-round activities. Campgrounds are established for horse riders, who pay a bridal fee (\$20/year). We saw a mountain biking trail under construction, observed campground in the vicinity of Deam Lake Recreational Area, now part of Clark SF, and inspected new horse stall buildings that are being finished. Construction has been done by in-house forest workers, with assistance from prisoners from an on-site correctional facility. Recent windstorms and ice storms have damaged numerous trees in and around campgrounds as well as the rest of the forest. Forest Education Center is part of the recreational/educational experience on this forest. DOF manages such facilities—recreation and education—with the goal of promoting information about forests and forest management.

Closing meeting. (John Seifert, Dan Ernst, John Friedrieich, Carl Hauser, Walt Zak, Greg Roeder, Brad Steward)

Held at Clark State Forest. Participants were thanked for their efforts in responding to CARs and recommendations issued on past audits, both SFI and FSC, and for their enthusiastic cooperation and preparation for this audit.

2.4 Status of Corrective Action Requests

Background/Justification: See CAR 2006.4: The DoF/DNP document “RepresentativeEcologicalCommunities.091808.doc”, and associated table of highest priority designations is sufficient evidence that this CAR has been addressed. DoF must now begin making progress on designating the high priority sites as representative ecological communities.	
CAR 2008.1	DoF must establish short-term (1-2 year) and longer-term measurable targets for designating highest priority communities as Representative Ecological Communities. There must be demonstrated progress toward accomplishing short-term goals at the 2009 audit.
Deadline	2009 surveillance audit
Reference	FSC Indicator 6.4.b.
Action Taken by Certificate Holder/Auditor Comments:	
As noted above, DoF and Division of Nature Preserved (DNP) began in 2007 to conduct a gap analysis to identify ecological communities that should be represented as reserves on State Forests and designated as Representative Ecological Communities. In 2009, DoF field personnel began searching for examples of communities identified in the gap analysis. By the date of the annual audit, two sites, mesic floodplain forests, had been identified and added to the list waiting designation as Representative Ecological Communities (designation is by DNP), one in the Morgan-Monroe State Forest and another in the Jackson-Washington State Forest.	
Status	Closed

FSC RECOMMENDATIONS

Recommendation 2008.1 – DoF should consider using the HCVF Template/Tool Kit in the draft FSC US National Standard to expand upon their identification of HCVF. To date, the listing of HCVF contains only those sites that are protected as Representative Ecological Communities and managed by the Division of Nature Preserves.
Action Taken by Certificate Holder/Auditor Comments:
DoF has not yet consulted the HCVF Tool Kit in the draft US National Standard.

2.5 New Corrective Action Requests, Recommendations, and Observations

Observed non-conformance: Inspections of property boundaries on the Harrison-Crawford and Clark State Forests revealed significant deficiencies in the number of surveyed boundaries and/or known corner locations. Although, annual targets for boundary marking are set each year, significant variations in boundary marking appear to exist among state forests.	
CAR 2009.1	DOF shall compile a report that details the status of boundary information (surveys, corners) on state forests. The report shall include annual and long-range targets for boundary surveys and marking of boundaries, and standards for identifying relevant boundary lines prior to commencement of management activities.
Deadline	2010 surveillance audit
Reference	FSC Indicator 2.1.b

2.6 General Conclusions of the Annual Audit

As a result of the 2009 annual audit, the SCS audit team concludes the Indiana State Forests continues to be managed in overall conformance with the FSC Principles and Criteria. Sections 2.4 and 2.5 detail the non-conformances with the Lake States Central Hardwoods Standard, and the actions being taken to address them. As such, continuation of the certification is warranted, subject to ongoing progress in closing out the open CAR and subject to subsequent annual audits.

3.0 DETAILED OBSERVATIONS

This section is divided into four parts: Section 3.1 details the determining of conformance and non-conformance with the elements of the standard examined during this audit. Section 3.2 discusses any stakeholder comments. Section 3.3 describes any controversial issues. Finally, Section 3.4 addressed any changes in the scope of certification.

3.1 Conformance with the Standard

REQUIREMENT	C/N/C	COMMENT/CAR
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.		
C5.1. Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.	C	Clearly, DoF is a long-term manager of a state forest system that will remain in state ownership. Necessary investment to support long-term forest management (e.g., TSI, inventory, research and monitoring, acquisition) has followed as indicated with the increased revenue from increased harvest levels.

		Additionally, increased revenue has been used and targeted for acquisitions.
C5.2. Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.	C	Most wood is purchased by local/regionally based contractors who, in turn, sell the harvested logs to processing facilities in the region.
C5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.	C	DoF foresters maintain close supervision over contractors and strongly enforce provisions in contracts for avoiding damage to residual stems, advanced regeneration, and soils. Field evidence confirmed a high level of conformance. Most unused tops and limbs are left on site; landings generally are free of wasted wood products; non-merchantable materials often are taken for firewood.
C5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.	C	DoF makes a concerted effort to provide a variety of outdoor recreational opportunities. Deam Lake (visited on the field audit) is the flagship example, coupling the attractions of water, camping, horseback riding, mountain bike and hiking trails with a growing education center that promotes the values of forest management and forest ecosystems.
C5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.	C	No watercourse violations were observed during the 2009 audit. DoF pays careful attention to BMP's in an effort to maintain forest services. A testimony to the importance of this criterion is an internal monitoring program that conducts audits of BMP compliance.
C5.6. The rate of harvest of forest products shall not exceed levels that can be permanently sustained.	C	DoF is still harvesting volumes of timber at a rate that is sustainable and considerably below an allowable rate based on growth. Volume harvested in FY08-09 was 8% greater than in the previous year, although revenues were down. The target for harvested volume among state forests was achieved.
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.		
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.	C	Ten harvest sites were inspected during the field audit. In all cases, pre-harvest assessment documents were quite thorough, with descriptions of access, boundaries, history of the site, historic sites, natural heritage review, current stand conditions, soils (in detail), recreation, geology, wildlife, plantations, and silvicultural prescription. On the Harrison-Crawford SF, assessments included an analysis of large trees that could be retained for Indiana Bats. A required step in the pre-harvest assessment is approval by the DoF Program Specialist from the central office. This review occurs after a management prescription has been laid out and marked on the ground.
C 6.2. Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping, and collecting shall be controlled.	C	The required review of pre-harvest assessments by natural heritage personnel in the Division of Nature Preserves, the wildlife biologist in DoF, and the local knowledge of senior staff on State Forests visited during the audit, assures the protection of R, T&E species and their habitats. This was especially evident on the Harrison-Crawford SF, where Indiana bat hibernacula are located.
C6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including:	C	The importance of desirable natural regeneration was obvious in silvicultural prescriptions observed on the ten

<p>a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.</p>		<p>harvest sites visited. Foresters are knowledgeable about site conditions needed to regenerate preferred species. Regeneration inventories are being conducted by the wildlife biologist. High densities of deer may interfere with preferred regeneration, but managers are aware of the potential and are assessing the impact from deer browsing. Attention is being paid to age-class distributions, and specific actions are being taken to encourage more early successional patches of desired species, which also is consistent with goals for improving wildlife habitat. Written guidelines for wildlife habitat features within compartments are being implemented and monitored.</p>
<p>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.</p>	<p>C</p>	<p>DoF has worked with Division of Nature Preserves to conduct a gap analysis of the protection of natural communities. Results of the analysis were presented in 2008, leading to a list of communities that are being sought on state forest lands. In 2009, two such sites were nominated for protection and management by DNP.</p>
<p>C6.5. Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.</p>	<p>C</p>	<p>State BMP guidelines, and additional written standards, are practiced routinely by managers of State Forests. Measures to avoid erosion and minimize other damage to the forest were evident on both forests visited during the audit. DoF excels in this area.</p>
<p>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.</p>	<p>C</p>	<p>DoF used chemicals as part of a program of controlling invasive plants. Division personnel are aware of chemicals that are not approved by FSC. Applicators are usually DoF personnel licensed to apply herbicides. An earlier concern about chemical storage has been addressed; new storage cabinets are in place, confirmed at Clark SF.</p>
<p>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.</p>	<p>C</p>	<p>No evidence to the contrary was observed at landing sites or at forest headquarters.</p>
<p>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.</p>	<p>C</p>	<p>DoF has not reported the use of biological control agents on any of the state forests.</p>
<p>C6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.</p>	<p>C</p>	<p>No exotic species are being planted on state forests. On the contrary, efforts are made to combat a number of invasive exotics. When trees are planted, stock comes from the state nursery, which uses seed collected within</p>

		Indiana.
<p>C6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:</p> <p>a) Entails a very limited portion of the forest management unit; and</p> <p>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.</p>	C	<p>Lands in Harrison-Crawford and Clark State Forests are not being converted to plantations or to non-forest uses. Some older plantations in need of management are being pushed toward a mix of species that regenerate naturally.</p>

3.2 Stakeholder Comments

No stakeholder comments were sought nor received during the 2009 annual audit process.

3.3 Controversial Issues

There were no controversial issues during the 2009 surveillance audit.

3.4 Changes in Certificate Scope

Since the certificate has been issued acquisitions have occurred increasing the total acreage to 156,000 acres.