

Indiana Division of Forestry

402 W. Washington Street, Rm 296 W
Indianapolis, IN 46204

6L841

SFI 2015-2019 Forest Management Standard

Surveillance and Upgrade to SFI 2015-2019

Report: December 8, 2015

Audit: October 19-21, 2015

NSF International Forestry Program Audit Report

A. Program Participant's Name

Indiana Division of Forestry

NSF Customer Number (FRS)

6L841

B. Scope

The Sustainable Forestry Initiative program including land management operations on approximately 156,815 acres of Indiana State Forests and related sustainable forestry activities. SFI Objectives 1-15 are included as well as all requirements of the 2010-2014 SFI Standard. Fiber sold under this certificate counts as 100% SFI and PEFC certified forest content. The SFI Standard certification number is NSF-SFIS-6L841.

C. NSF Audit Team

Mike Ferrucci, Paul Pingrey

D. Audit Dates

September 21-25, 2015

E. Reference Documentation

SFI 2015-2019 Requirements

Company Documentation

- Indiana State Forest Strategic Plan 2015-2019
1. 10 Year Plan - Clark State Forest – 07/21/08
 2. 10 Year Plan - Harrison-Crawford State Forest 07-09

F. Audit Results: Based on the results of this assessment, the auditor concluded:

- Acceptable with no nonconformities
- Acceptable with transitional nonconformities that must have an approved, implemented corrective action plan in place by December 31, 2015
- Not acceptable with minor nonconformities and/or one or two major nonconformities – corrective action required.
- Several major nonconformities – certification may be cancelled unless immediate action is taken

G. Changes to Operations or to the Standard

Are there any significant changes in operations, procedures, specifications, facility records, etc., from the previous visit?

- Yes
- No

H. Other Issues Reviewed

- Yes No N/A Public report from previous audit(s) is posted on the SFI website

Yes No N/A Relevant logos or labels (SFI, PEFC, etc.) are utilized correctly.

Yes No N/A Nonconformities from previous audit were reviewed.
If yes, briefly explain: There were no previous nonconformities.

I. New Corrective Action Requests

- Corrective action plan is not required.
- Minor Nonconformities: Corrective action plan should be provided within thirty (30) days of this visit. NSF may suspend the certificate if the plan is not received within sixty (60) days. Effectiveness of implementation of corrective actions will be verified during the next regularly scheduled visit.
- Major Nonconformities: Corrective action plan should be provided within thirty (30) days of this visit. The auditor will make arrangements to verify the corrective action has been effectively implemented. All major nonconformities must be closed by a special verification audit or by desk review. NSF may suspend the certificate if the corrective action plan is not received within sixty (60) days and/or if evidence verifying the corrective action is not provided within 120 days.

At the conclusion of this audit, the following number of NCs was communicated:

Major: 0 Minor: 0 Transitional Minor: 1

In addition, 2 opportunities for improvement (OFIs) were identified)

Corrective actions and supporting documentation should be submitted to NSF through the NSF Online Customer Portal. For assistance, please contact your NSF Certification Project Manager.

J. Future Audit Schedule

Following the initial registration audit, continued certification requires annual assessments commonly referred to as “Surveillance Audits”. Additionally, at the end of the certification period, maintaining certification requires the completion of a recertification or “Reassessment Audit”. Your next audit is a Re-Certification Audit, scheduled to be conducted for the third week of October, 2016.

Appendices

- Appendix 1: Audit Notification Letter and Audit Agenda
- Appendix 2: SFI Forest Management Public Summary Report
- Appendix 3: Audit Standard Checklist - SFI Forest Management Standard
- Appendix 4: 2015 Audit Site Visits
- Appendix 5: Meeting Attendance
- Appendix 6: Form for Reporting SFI/PEFC Certification (modified scope is the only change)

Appendix 1

RE: Audit Notification Letter, 2015 SFI Surveillance Audit

August 21, 2015, Revised October 13, 2015

Brenda Huter, Forest Stewardship Coordinator
Indiana Division of Forestry
402 W. Washington Street, Rm 296 W
Indianapolis, IN 46204

Re: Confirmation of SFI 2015 Surveillance Annual Surveillance Audit, Indiana DNR

Dear Ms. Huter:

As agreed, the 2015 joint FSC and SFI audits of Indiana DNR are scheduled for September 21-25, 2015. Please confirm that these dates are still appropriate for the audit of your program's conformance to the SFI 2015-2019 Forest Management Standards and the FSC P&C.

As we discussed, I will be leading the SFI portion of your joint (with FSC) audit as described in the attached itinerary. This letter is intended to meet the SFI audit planning requirements and will therefore focus on the SFI part of the work. A separate FSC audit plan will be provided by SCS Global.

The audit team will consist of:

- Mike Ferrucci, NSF-International – SFI Lead Auditor
- Paul Pingrey, – FSC Lead Auditor

The 2015 SFI Surveillance Audit is a partial review of your SFI Program to confirm that it is in conformance with selected parts of the current 2010-2014 Standard and that you are prepared to implement the new SFI 2015-2019 Forest Management Standard.

During the SFI audit the team will also:

1. Review the results of the management review of your SFI Program;
2. Evaluate the multi-site requirements;
3. Review logo and/or label use;
4. Confirm public availability of public reports; and

SFI Audit Scope

The Sustainable Forestry Initiative program including land management operations on approximately 156,815 acres of Indiana State Forests and related sustainable forestry activities. SFI Objectives 1-15 are included as well as all requirements of the 2010-2014 SFI Standard. The SFI Standard certification number is NSF-SFIS-6L841.

Multi-Site Sampling Plan

Indiana DNR qualifies for multi-site sampling as provided within the Requirements for the SFI 2015-2019 Program: Standards, Rules for Label Use, Procedures, and Guidance, Section 9 Auditing Requirements.

The Indianapolis (central) office has general control and authority over the separate state forests. As such the program is eligible for a sampling approach involving field reviews of two of the 10 administrative units. The sampling plan requires visits to 2 state forests (Harrison Crawford State Forest and Clark State Forest). These forests were selected based on the time elapsed since previous audits, while most of the field sites to be reviewed within each forest will be selected randomly. Central office issues will be reviewed primarily on the third day (see schedule).

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Owen Putnam	x			x			x		
Greene Sullivan	x			x			x		
Pike/Ferdinand	x				x			x	
Morgan Monroe		x				x	x		
Jackson Washington		x			x			x	
Selmier		x			x			x	
Martin		x			x			x	
Harrison Crawford			x			x			<u>x</u>
Clark			x			x			<u>x</u>
Yellowwood				x		x	x		
Salamonie/ Francis Slocum (Northern forests)									

Audit Schedules and Travel Logistics

The overall schedule shown below was agreed to by all parties. More detailed daily schedules are to be developed by your team as they finalize the site selection process, based on preliminary selections provided separately. Final schedules should be emailed to all involved by October 16, 2015 if possible. The schedules will be reviewed and adjusted as needed during the opening meeting or in the field to accommodate any special circumstances.

Role of SFI Inc. Office of Label Use and Licensing

As a reminder, your organization is responsible for contacting SFI, Inc. and complying with all requirements before using or changing any SFI label or logo. Your contact is:

Rachel Dierolf, Manager of Statistics and Labeling
 Sustainable Forestry Initiative, Inc.
 900 17th Street NW, Suite 700, Washington, DC 20006

613-274-0124 rachel.dierolf@sfiprogram.org

Information Request

A formal information request has been sent from the SCS Global office; while this request is generally directed to FSC issues much of that information will be of value to during the SFI evaluation. In addition I request that you assemble the evidence for meeting the SFI requirements highlighted in the SFI checklist of the 2015-2019 requirements previously provided. The audit will cover elements of these new requirements (yellow highlights) as well as a sample of the 2010-2014 requirements (green highlights, including all field indicators under Objectives 1-7).

While printed material provided to the audit team at the start of the audit can be quite useful, the team also requests electronic copies of documents where possible. Receiving some of these documents, notably management plans for units to be visited, several days prior to the audits would be helpful.

We look forward to visiting you and evaluating continual improvement in your SFI Program. If you have any questions regarding this planned audit, please contact us.

Best Regards,



Mike Ferrucci, Lead Auditor, NSF

mferrucci@iforest.com

203-887-9248

Enclosures:

- Agenda Overview
- Clark Management Activities for 2015 audit Initial Selections
- Harrison Crawford Management activities 2015 audit Initial Selections

Provided Previously

- SFI Checklist with information requests highlighted

Timber Harvested							
Random	Fiscal Year	Harvest Number	Date	Board Foot Volume	Chord Volume	Arces	Opening Acres
58	2013	6301301	Sept. '12	491,096	104.2	322	
91		6301302	Sept. '12	351,354	84.9	176	22.1
95		6301303	Sept. '12	245,823	39	156	
99		6301305	Sept. '12	318,980	141	156	23
71	2015	6301502	April '15	49,828	42	47	8.7
Active Timber Harvests							
98	2013	6301304	Sept. '12	428,662	263.5	250	77.6
45	2014	6301401	March '14	702,970	1632.6	280.29	7.5
Sold Timber							
27	2014	6301402	March '14	307,799	33	140	9.6
63	2015	6301501	April '15	281,280	71	127	
6		6301503	April '15	879,137	365.2	292	44.2
TSI Bid							
	Fiscal Year	Comp. / Tract	Acres				
49	2014	C8T10,11	267				
16		C10T12	192				
Invasives Control Complete							
18	2015	C7T5	1.83				
Roads/Trails Construction Complete							
	Fiscal Year	Comp. / Tact	Miles				
29	2014	C1T7,8	0.88				

Harrison-Crawford State Forest						
Activities Summary FY 13-15						
FY 2015						
Random	Activity	Start Date	Completion Date	Tract(s)	Volume	(Marked) Acreage
50	Timber Harvest	1/8/2015	ongoing	2807	361,440	150
97	Timber Harvest	1/8/2015	ongoing	2911, 2914	363,840	146
7	Timber Harvest	1/8/2015	ongoing	3007	429,940	102
41	Timber Harvest	6/25/2015	ongoing	1703, 1802	200,820	56
70	Timber Harvest	6/25/2015	ongoing	1308	89,605	67
88	Timber Harvest	6/25/2015	ongoing	2311, 2312	458,175	165
Timber Harvest TOTAL					1,903,820	686
61	TSI	2015	ongoing	905, 906, 907	Woodland Works	183
80	TSI	2015	ongoing	1004, 1702	Ron Rathfon	105
TSI TOTAL						288
Road Improvements		2015	2015	HCSF	Access Roads	4.72 miles
77	Invasives	5/1/2015	6/15/2015	1308	Ailanthus	1
85	Invasives	7/13/2015	8/4/2015	Cold Friday Rd and Cypress Pond Loop Trail	Stilt Grass	15
85	Invasives	7/19/2015	7/19/2015	1208	Stilt Grass	1
18	Invasives	8/5/2015	8/5/2015	2001	J. Grass	1
59	Invasives	5/12/2015	5/12/2015	C18	Ailanthus	1
10	Invasives TOTAL					19
FY 2014						
	Activity	Start Date	Completion Date	Tract(s)	Volume	(Marked) Acreage
97	Timber Harvest	6/26/2014	ongoing	605	10,000	20
58	Timber Harvest	6/26/2014	ongoing	2906, 2907	161,562	69
96	Timber Harvest	6/26/2014	ongoing	1701	341,478	120
3	Timber Harvest	6/26/2014	ongoing	1307	349,427	123
44	Timber Harvest	6/26/2014	ongoing	1905, 2602, 2603	428,500	142
72	Timber Harvest	10/3/2013	winter 2014	1403	118,252	72
51	Timber Harvest	10/3/2013	winter 2014	503	100,169	40
52	Timber Harvest	10/3/2013	ongoing	2304, 2305, 2306	199,392	104
63	Timber Harvest	10/3/2013	winter 2014	2206	228,780	70
87	Timber Harvest	10/3/2013	winter 2014	3011	451,530	86
Timber Harvest TOTAL					2,389,090	846
74	TSI	11/3/2014	ongoing	202, 1005, 1006, 1908, 2301, 2302	Hawkins	217
40	TSI	12/17/2014	2/10/2015	705, 1309, 3005	Habitat Solutions	181
2	TSI TOTAL					398
Road Improvements		2014	2014	HCSF	Access Roads	2.38 miles
64	Invasives	7/7/2014	8/21/2014	2405, 2406, 1901, 1903, 1904, 1905, 1906, C19, C20	Stilt Grass	6
56	Invasives	7/20/2014	8/5/2014	1208	J. Grass, Stilt Grass	1
71	Invasives	8/25/2014	8/25/2014	1205, 1310	Bush Honeysuckle	1
12	Invasives	10/22/2014	10/22/2014	1905, 1907	Ailanthus, Burning Bush	1
37	Invasives TOTAL					9
88	Tree Planting	spring 2014	ongoing	Brown's Field (1908)	7,500 mixed oak	8
15	Tree Planting	spring 2014	summer 2014	1205	A. chestnut	1
78	Tree Planting TOTAL					9
FY 2013						
	Activity	Start Date	Completion Date	Tract(s)	Volume	(Marked) Acreage

Agenda Overview

2015 Indiana State Forests FM Audit Proposed Agenda Overview – October 13, 2015

Date	Activity	Notes
Sunday Oct. 18		Afternoon-evening arrival; Paul arrives Louisville (SDF) 11:51AM – will have a rental car Mike arrives Louisville (SDF) 11:34 PM – will have a rental car Lodging location: QUALITY INN & SUITES 111 Enterprise Way, Sellersburg, IN, 47172-1062, US (Auditors have made their reservations.)
Monday Oct. 19		
8-9 am	Opening Meetings Clark State Forest 2 Service DR Henryville, IN 47126 (812)294-4306	Abbreviated opening meeting. From Sellersburg go north on 65 to exit 19 Henryville – Hwy 160 (approx. 10 miles). Go east on 160 into Henryville. At the 4 way stop, turn left (north). Go 1.3 miles. State forest is on the west side of the road. Follow the signs for the office. (or if you take the road just north of the main entrance, it will take you right to the office).
9-10 am	Clark State Forest - Office	Discuss forest, review documents, organize lunch and finalize field stops
10 am to 5 pm	Clark State Forest - Field	
		Lodging: Holiday Inn Express 249 Federal Drive Nw , Corydon, IN 47112 , United States 812 738-1623 (Auditors have made their reservations.)
Tuesday Oct. 20		
8-9 am	Harrison-Crawford State Forest 7240 Old Forest Rd. SW Corydon, IN 47112 (812) 738-7694- Office	Discuss forest, review documents, organize lunch and finalize field stops

9 to 5	Harrison-Crawford State Forest - Field	
		Lodging: Holiday Inn Express 249 Federal Drive Nw , Corydon, IN 47112 , United States 812 738-1623 (Auditors have made their reservations.)
Wednesday Oct. 21		
8-10 am	Harrison-Crawford State Forest - Field	Visit sites close to office
10 am – 1 pm	7240 Old Forest Rd. SW Corydon, IN 47112 - Office	Central Office and Multi-site Requirements; lunch
1 pm	Final Issues/Deliberations	Audit Team privately
1:30 pm	Closing Meeting	
3 pm	End of Audits	Mike travels home
	Wednesday Lodging (Paul & Brenda)	French Lick Best Western 613 S Arnold F Habig Blvd French Lick, IN 47432 (Brenda has made reservations)

Appendix 2

SFI Forest Management Public Summary Report

The SFI Program of the Indiana Division of Forestry has achieved conformance with the 2015-2019 SFI® Forest Management Standard according to the NSF SFIS Surveillance Audit Process.

NSF initially certified Indiana Division of Forestry to the SFIS in 2006 and recertified it in 2011 and in 2014. This report describes a surveillance audit which included an update to the SFI 2015-2019 Forest Management Standard. The audit was designed to focus on changes in operations, the management review system, and efforts at continuous improvement. In addition, a subset of SFI requirements were selected for detailed review. The program is being audited under the standard audit approach.

The Indiana Division of Forestry is responsible for management of the state forest system.

Forest Management on Indiana State Forests

Source: http://www.in.gov/dnr/forestry/files/fo-Management_on_SF.pdf

“The State Forest system began with the establishment of Clark State Forest in 1903. Since then, the State Forest system has evolved into 13 State Forests containing more than 150,000 acres. State Forests have been managed for the many forest benefits that these lands are capable of providing. When the state acquired what is now State Forest property, almost every acre was comprised of eroding farm fields, pasture, or cutover timberland considered to have very little value to anyone. Most of the existing woodland had been high-graded, with the residual trees often exhibiting defects from forest fires and livestock grazing.

Many early management activities were aimed at stopping erosion and restoring the productive potential of the land. Tree planting to control erosion and reforest worn out fields was a primary management activity for many years. Early timber harvesting on state forests provided raw materials for projects of the Civilian Conservation Corps and utility poles for rural electrification projects. World War II saw the sustained use of timber sales from State Forests to provide needed wood materials for the war effort.

Techniques used to manage the forests evolved as the forests grew. Less emphasis was needed on tree planting and more emphasis was placed on managing new stands of trees. Management activities, such as timber stand improvement and selective harvesting, were used to upgrade the quality of the stands and increase tree growth. This emphasis on stand improvement techniques continues today, with the goal of improving not only timber production but also all of the various forest resource benefits. Increasing emphasis is being placed on creating early successional habitat, common in the early history of State Forests, but uncommon today.

Because the stands of trees on State Forests all began at about the same time, and because of the conservative nature of their management, most of the State Forests have

matured at about the same rate, with little diversity among age classes and habitat types.

Based on current forest inventory data the State Forest system contains 1.379 billion board feet of standing sawtimber volume, and is growing 40.4 million board feet of volume per year. Because of the need to increase forest habitat diversity (increase young forest), reduce dependence on general fund allocations, and the desire to demonstrate a working forest concept, the annual harvest target for Indiana State Forests is set at removing 14 million board feet—less than half the annual growth. This rate ensures the sustainability of the forest resource while providing a steady, stable source of certified-sustainable wood for the forest products industry and workers here in Indiana.

State Forests are being managed by professional foresters and resource specialists to demonstrate a working forest concept. A working forest is actively managed under a stewardship plan that guides its activities to accomplish the desired goals. The working forest can provide a variety of goods and services such as watershed protection, recreation, wildlife habitat, scenic beauty and wood products.”

SFIS Surveillance Audit Process

The Surveillance audit was performed by NSF on October 19-21 by an audit team headed by Mike Ferrucci, Lead Auditor and Paul Pingrey, FSC Lead Auditor. Audit team members fulfill the qualification criteria for conducting SFIS Certification Audits contained in SFI 2015-2019 Standards and Rules, Section 9 - Procedures and Auditor Qualifications and Accreditation.

The objective of the audit was to assess conformance of the firm’s SFI Program to the new requirements of the SFI 2015-2019 Standard, Section 2 – Forest Management and a sample of the other existing requirements. The scope of the SFIS Audit included the entire state forest system, but this review included field sites at two state forests: Clark State Forest and Harrison-Crawford State Forest. Forest practices that were the focus of field inspections included those that have been under active management over the past three years, in order to include planned, ongoing, and completed operations. Practices conducted earlier were also reviewed as appropriate (regeneration and BMP issues, for example).

The SFI Standard was used without modifying any requirements.

The following indicators are not applicable:

- Indicator 2.1.4: Indiana Division of Forestry doesn’t plant exotic trees.
- Indicator 2.1.6: Planting is not done to change forest composition but to maintain it.
- Indicator 15.2.2: Indiana does not have a logger certification program.

The review was governed by a detailed audit protocol designed to enable the audit team to determine conformance with the applicable SFI requirements. 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 were provided to the auditor in advance, and a sample of the available audit evidence was designated by the auditor for review.

The possible findings of the audit include Full Conformance, Major Non-conformance, Minor Non-conformance, Opportunities for Improvement, and Practices that Exceeded the Basic Requirements of the SFIS.

Overview of Audit Findings

Indiana Division of Forestry's SFI Program was found to be in full conformance with the SFI 2015-2019 Forest Management Standard. There was one Transitional Non-conformance to the new requirement that will be resolved prior to December 31, 2015. Other findings include "Opportunities for Improvement" and "Exceptional Practices" as shown below.

2015 Transitional Minor Non-conformance

8.1.1. Program Participants will provide a written policy acknowledging a commitment to recognize and respect the rights of Indigenous Peoples. Transitional Minor Non-Conformance: The Indiana Division of Forestry does not include a policy statement acknowledging a commitment to recognize and respect the rights of Indigenous Peoples.

2015 Opportunities for Improvement

SFI Indicator 3.1.1 requires a "Program to implement federal, state or provincial water quality best management practices during all phases of management activities."

There is an Opportunity for Improvement in the maintenance of recreational trails which are placed on forest access roads or fire trails. Indiana BMP Guide, Closing Forest Roads, page 15: "Insure that all erosion control and water management measures (e.g. water bars, drainage dips, culverts and ditches) are working. See spacing recommendations in Table 1, page 12."

SFI Indicator 11.1.3 requires "Staff education and training sufficient to their roles and responsibilities."

There is an Opportunity for Improvement in the challenges associated with frequent turnover of field forestry staff (resource managers).

No CARs were identified during the 2014 audit.

Update regarding 2014 Opportunities for Improvement

In 2014 three (3) opportunities for improvement were identified. These have been resolved or modified as follows:

1. SFI Indicator 1.1.1 requires "Forest management planning at a level appropriate to the size and scale of the operation, including: a. a long-term resources analysis..." The 2014 Opportunity for Improvement was resolved by the completion of the Indiana State Forest Strategic Plan 2015-2019. (There is an Opportunity for Improvement in the planning regarding the adoption of an updated strategic plan, currently under review.

2. SFI Indicator 2.3.6 requires “Criteria that address harvesting and site preparation to protect soil productivity.” Criteria for rutting/compaction have been revised and strengthened to assure adequate protection to soils.

3. SFI Indicator 16.1.4 requires “Contractor education and training sufficient to their roles and responsibilities.” SFI Indicator 16.2.1 requires “Participation in or support of SFI Implementation Committees to establish criteria and identify delivery mechanisms for wood producers’ training courses that address:
 - a. awareness of sustainable forestry principles and the SFI program;
 - b. best management practices, including streamside management and road construction, maintenance and retirement;
 - c. reforestation, invasive exotic plants and animals, forest resource conservation, aesthetics, and special sites;
 - d. awareness of responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act, and other measures to protect wildlife habitat (e.g. Forests with Exceptional Conservation Value);
 - e. logging safety;
 - f. U.S. Occupational Safety and Health Administration (OSHA) and Canadian Centre for Occupational Health and Safety (COHS) regulations, wage and hour rules, and other provincial, state and local employment laws;
 - g. transportation issues;
 - h. business management;
 - i. public policy and outreach; and
 - j. awareness of emerging technologies.Logger training curriculum has been revised to include additional elements from the SFI module.

2015 Exceptional Practices

The Indiana Division of Forestry’s SFI Program was found to exceed the standard in several areas.

SFI Indicator 1.1.3 requires “A forest inventory system and a method to calculate growth and yield. The Indiana Division of Forestry has developed an exemplary forest inventory system.

SFI Indicator 3.1.3 requires “Monitoring of overall best management practices implementation. The BMP monitoring program is the most robust known to the audit team. Post-harvest BMP reviews are conducted by Indiana Division of Forestry Resource Foresters and by a comprehensive second-party process.

SFI Indicator 4.1.1 requires a “Program to promote the conservation of native biological diversity, including species, wildlife habitats and ecological community types. Indiana Division of Forestry employs a full-time wildlife biologist, Scott Haulton. His time is focused on special situations and on the HCP effort for the Indiana bat and the Northern long-ear bat, but he also provides support for regular work activities. The Indiana Division of Forestry has dedicated considerable resources to developing state-of-the-art bat conservation practices.

SFI Indicator 4.1.4 requires the “Development and implementation of criteria, as guided by regionally appropriate best scientific information, to retain stand-level wildlife habitat elements such as snags, stumps, mast trees, down woody debris, den trees and nest trees. The Indiana Division of Forestry has an exceptional program to retain stand-level wildlife habitat elements in accordance with scientific information.

SFI Indicator 5.4.1 requires the organization to “Provide recreational opportunities for the public, where consistent with forest management objectives.

Indiana Division of Forestry provides excellent recreational opportunities for the public including walking and horse trails, camping and access to lakes and ponds.

SFI Performance Measure 6.1 requires that “Program Participants shall identify special sites and manage them in a manner appropriate for their unique features.” There is an exceptional program for identifying and managing culturally important sites.

SFI Indicator 10.1.1 requires “Financial or in-kind support of research to address questions of relevance in the region of operations.” The Indiana Division of Forestry has an exemplary program for research, particularly for issues related to management of forests to conserve ecological values and threatened or endangered species, notably bats.

SFI Indicator 18.1 requires that “Program Participants with forest management responsibilities on public lands shall participate in the development of public land planning and management processes. Annual “State Forest Open Houses” and a very comprehensive and well-organized web site contribute to an exceptional program for public involvement in public land management and planning.

The next Surveillance Audit is scheduled for October 2016.

General Description of Evidence of Conformity

NSF’s audit team used a variety of evidence to determine conformance. A general description of this evidence is provided below, organized by SFI Objective.

Objective 1 Forest Management Planning

To ensure forest management plans include long-term sustainable harvest levels and measures to avoid forest conversion.

Summary of Evidence: The Indiana Statewide Forest Assessment 2010 and the Indiana State Forest Strategic Plan 2015-2019, state forest plans, tract plans, and the associated inventory data and growth models were the key evidence of conformance.

Objective 2 Forest Health and Productivity

To ensure long-term forest productivity, carbon storage and conservation of forest resources through prompt reforestation, afforestation, minimized chemical use, soil conservation, and protecting forests from damaging agents.

Summary of Evidence: Field observations and associated records were used to confirm practices. INDNR has programs for reforestation, for protection against gypsy moth, emerald ash borer, other pests, and wildfire, and for careful management of activities which could potentially impact soil and long-term productivity.

Objective 3 Protection and Maintenance of Water Resources

To protect the water quality of rivers, streams, lakes, wetlands and other water bodies through meeting or exceeding best management practices.

Summary of Evidence: Field observations of a range of sites were the key evidence. Auditors visited the portions of field sites that were close to water resources.

Objective 4 Conservation of Biological Diversity

To manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand and landscape-level measures that promote a diversity of types of habitat and successional stages, and the

conservation of forest plants and animals, including aquatic species, as well as threatened and endangered species, Forests with Exceptional Conservation Value, old-growth forests and ecologically important sites.

***Summary of Evidence:** Field observations, written plans and policies for the conservation of the Indiana bat, employment of an experienced wildlife biologist, and use of heritage databases were the evidence used to assess the requirements involved biodiversity conservation.*

Objective 5 Management of Visual Quality and Recreational Benefits

To manage the visual impact of forest operations and provide recreational opportunities for the public.

***Summary of Evidence:** Indiana Division of Forestry provides excellent recreational opportunities for the public including walking and horse trails, camping and access to lakes and ponds. Records and field sites were reviewed to assess methods and results in visual management.*

Objective 6 Protection of Special Sites

To manage lands that are geologically or culturally important in a manner that takes into account their unique qualities.

***Summary of Evidence:** Field observations of completed operations, records of special sites and visits to special sites were all factors in the strong finding for protection of special sites.*

Objective 7 Efficient Use of Fiber Resources

To minimize waste and ensure the efficient use of fiber resources.

***Summary of Evidence:** Field observations of completed operations, contract clauses, and discussions with supervising field foresters provided the key evidence.*

Objective 8 Recognize and Respect Indigenous Peoples' Rights

To recognize and respect Indigenous Peoples' rights and traditional knowledge.

***Summary of Evidence:** Policies and systems for receiving and responding to requests were used to determine conformance.*

Objective 9 Legal and Regulatory Compliance

To comply with applicable federal, provincial, state and local laws and regulations.

***Summary of Evidence:** Field reviews of ongoing and completed operations and systems used to ensure conformance were the most critical evidence.*

Objective 10 Forestry Research, Science and Technology

To invest in forestry research, science and technology, upon which sustainable forest management decisions are based and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.

***Summary of Evidence:** supports a variety of forestry research initiatives, including the Hardwood Ecosystem Experiment (a collaborative research project that currently includes 13 partnering organizations and agencies including researchers from six regional universities) on the Morgan-Monroe and Yellowwood State Forests.*

Objective 11 Training and Education

To improve the implementation of sustainable forestry practices through appropriate training and education programs.

***Summary of Evidence:** Training records of selected personnel, records associated with harvest sites audited, and stakeholder interviews were the key evidence for this objective.*

Objective 12 Community Involvement and Landowner Outreach

To broaden the practice of sustainable forestry through public outreach, education, and involvement, and to support the efforts of SFI Implementation Committees.

Summary of Evidence: *Indiana Division of Forestry has annual state forest open houses that provide outreach, supplemented by the web site which has an on-line comment form. The Harrison-Crawford State Forest has a new, very high-quality Timber Harvest Interpretive Trail.*

Objective 13 Public Land Management Responsibilities

To participate and implement sustainable forest management on public lands.

Summary of Evidence: *Indiana Division of Forestry seeks input into management decisions including the comment period for the latest strategic plan. Each forest has annual state forest open houses that provide outreach.*

Objective 14 Communications and Public Reporting

To increase transparency and to annually report progress on conformance with the SFI Forest Management Standard.

Summary of Evidence: *Reports filed with SFI Inc. and the SFI Inc. website provided the key evidence.*

Objective 15. Management Review and Continual Improvement

To promote continual improvement in the practice of sustainable forestry by conducting a management review and monitoring performance.

Summary of Evidence: *Records of program reviews, agendas and notes from management review meetings, and interviews with personnel from all involved levels in the organization were assessed.*

Relevance of Forestry Certification

Third-party certification provides assurance that forests are being managed under the principles of sustainable forestry, which are described in the Sustainable Forestry Initiative Standard as:

1. Sustainable Forestry

To practice sustainable forestry to meet the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic that integrates reforestation and the managing, growing, nurturing and harvesting of trees for useful products and ecosystem services such as the conservation of soil, air and water quality, carbon, biological diversity, wildlife and aquatic habitats, recreation and aesthetics.

2. Forest Productivity and Health

To provide for regeneration after harvest and maintain the productive capacity of the forest land base, and to protect and maintain long-term forest and soil productivity. In addition, to protect forests from economically or environmentally undesirable levels of wildfire, pests, diseases, invasive exotic plants and animals and other damaging agents and thus maintain and improve long-term forest health and productivity.

3. Protection of Water Resources

To protect water bodies and riparian areas, and to conform with forestry best management practices to protect water quality.

4. Protection of Biological Diversity

To manage forests in ways that protect and promote biological diversity, including animal and plant species, wildlife habitats, and ecological or natural community types.

5. Aesthetics and Recreation

To manage the visual impacts of forest operations, and to provide recreational opportunities for the public.

6. Protection of Special Sites

To manage lands that are ecologically, geologically or culturally important in a manner that takes into account their unique qualities.

7. Responsible Fiber Sourcing Practices in North America

To use and promote among other forest landowners sustainable forestry practices that are both scientifically credible and economically, environmentally and socially responsible.

8. Legal Compliance

To comply with applicable federal, provincial, state, and local forestry and related environmental laws, statutes, and regulations.

9. Research

To support advances in sustainable forest management through forestry research, science and technology.

10. Training and Education

To improve the practice of sustainable forestry through training and education programs.

11. Community Involvement and Social Responsibility

To broaden the practice of sustainable forestry on all lands through community involvement, socially responsible practices, and through recognition and respect of Indigenous Peoples' rights and traditional forest-related knowledge.

12. Transparency

To broaden the understanding of forest certification to the SFI Standard by documenting certification audits and making the findings publicly available.

13. Continual Improvement

To continually improve the practice of forest management, and to monitor, measure and report performance in achieving the commitment to sustainable forestry.

14. Avoidance of Controversial Sources including Illegal Logging in Offshore Fiber Sourcing

(Applies only to the SFI 2015-2019 Fiber Sourcing Standard)

To avoid wood fiber from illegally logged forests when procuring fiber outside of North America, and to avoid sourcing fiber from countries without effective social laws.

Source: Sustainable Forestry Initiative® (SFI) Standard, 2015–2019 Edition

Appendix 3

Audit Standard Checklist - SFI Forest Management Standard

NSF International Forestry Program

SFI 2015-2019, Section 2: Forest Management Standard Audit Checklist

FRS # 6L841 Indiana DNR

Date of audits: September 21-25, 2015

1.2 Additional Requirements

SFI Program Participants with fiber sourcing programs (acquisition of roundwood and field-manufactured or primary-mill residual chips, pulp and veneer to support a forest products facility), must also conform to the SFI 2015-2019 Fiber Sourcing Standard.

Use of the *SFI* on-product labels and claims shall follow Section 5 - Rules for Use of *SFI* On-Product Labels and Off-Product Marks as well as ISO 14020:2000.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry does not use on-product labels and claims

Auditor: MF

Objective 1 Forest Management Planning

To ensure forest management plans include *long-term* sustainable harvest levels and measures to avoid forest conversion.

Performance Measure 1.1

Program Participants shall ensure that forest management plans include *long-term* harvest levels that are sustainable and consistent with appropriate *growth-and-yield models*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Harvest levels are set at 14 million board feet per year which is 60% of the conservative estimate of annual growth.

Auditor: MF

1.1.1. Forest management planning at a level appropriate to the size and scale of the operation, including:

- a. a *long-term* resources analysis;
- b. a periodic or ongoing *forest inventory*;
- c. a land classification system;
- d. biodiversity at *landscape scales*;
- e. soils inventory and maps, where available;
- f. access to *growth-and-yield modeling* capabilities;
- g. up-to-date maps or a geographic information system (GIS);
- h. recommended sustainable harvest levels for areas available for harvest; and
- i. a review of non-timber issues (e.g., recreation, tourism, pilot projects and economic incentive *programs* to promote water *protection*, carbon storage, *bioenergy feedstock* production, or *biological diversity conservation*, or to address climate-induced ecosystem change).

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC Transitional NC

Audit Notes: Indiana State Forest Strategic Plan 2015-2019 has been completed and is being used to guide management decisions. A public comment period will end on October 31 and responses to the comments will be prepared, including possible revisions to the strategic plan.

The second tier of planning consists of 10-year state forest plans; reviewed plans for both state forests audited:

1. 10 Year Plan - Clark State Forest – 07/21/08
2. 10 Year Plan - Harrison-Crawford State Forest 07-09

The Clark State Forest Plan includes the following sections:

Section 1: Property Overview: Recreational Activities; Personnel; Utilities; Estimated Number Of Users; Demographics; Geological And Physical Features; Ecosystem; Timber Resources; Wildlife Resources; Cultural Resources; Recreation; Information And Education; Property Land Base

Section 2: Future Property Direction: Recreation Program Area; Forest Resource Program Area; Information and Education Program Area; Forest Land Management Program Area; Fish and Wildlife Program Area; Administration Program Area; Personnel Program Area

Section 3: Ten-Year Funding Projection - Standard Operation

Section 4: Ten-Year Income Projection - Standard Operation

Section 5: Ten-Year Projection of New/Expanded Programs and CR&R Projects (with details in the same categories as Section 2.

The final tier involves Tract Management Guides prepared in advance of management activities, notably timber harvests. Tract guides were reviewed for most sites selected for field review during the 2015 audit. These include sections on: Sawtimber volumes by species, per acre and total tract basis, divided into harvest, leave, and total; Location; General Description; History; Landscape Context; Topography, Geology, and Hydrology; Soils; Access; Boundary; Wildlife (with details on “Wildlife Habitat Features” and on Indiana Bat in some plans); Recreation; Cultural; Invasive; Management Limitations; Summary Tract Silvicultural Description, Prescription, and Proposed Activities; Management Summary; Proposed Activities Listing; and Maps. (This list is from the Resource Management Guide, Harrison-Crawford State Forest, Compartment 26, Tract 3, May 31, 2013.)

The 2014 Opportunity for Improvement was resolved by the completion of the Indiana State Forest Strategic Plan 2015-2019. (There is an Opportunity for Improvement in the planning regarding the adoption of an updated strategic plan, currently under review.

Auditor: MF

1.1.2. Documented current harvest trends fall within long-term sustainable levels identified in the forest management plan.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana State Forest Strategic Plan 2015-2019: “Maintain annual timber harvest at an average of 14 million board feet. At the current average annual growth on state forests estimated at 24,800,000 board feet, this represents an annual harvest approximating 60% of annual growth.

Timber Sale Volume and Sale Prices The Past Twelve Years

Fiscal Year	Volume Sold (Bd. Ft.)	Sale Prices
2002-2003	3,458,199	\$1,096,378
2003-2004	3,422,287	\$897,313
2004-2005	3,599,844	\$975,388
2005-2006	7,683,400	\$1,979,460
2006-2007	10,267,384	\$2,669,179
2007-2008	11,302,104	\$2,928,707
2008-2009	12,154,436	\$2,330,511
2009-2010	10,253,981	\$2,368,521
2010-2011	14,065,864	\$2,720,629
2011-2012	14,435,135	\$2,686,672
2012-2013	11,995,721	\$1,887,726
2013-2014	17,148,568	\$4,036,782
TOTAL	119,786,923	\$26,577,267

Source: 2014 Indiana DNR, Division of Forestry Annual Report. www.in.gov/dnr/forestry/.
State Forest land acquisition added a 121-acre parcel at Morgan-Monroe State Forest.

Auditor: MF

1.1.3. A *forest inventory* system and a method to calculate growth and yield.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: 2015: The Indiana Division of Forestry has developed an exemplary forest inventory system, and has continued to prioritize inventory.

The CFI will be used as part of the compliance reporting for the pending Habitat Conservation Plan.

The Indiana State Forest Strategic Plan 2015-2019 states this goal: “Maintain a continuous forest inventory system that provides statistically significant resource data at the property level; measure 20% of field plots each year through the planning period (100% of plots visited by end year five.)” This program of inventory has been maintained despite challenges with staffing and turnover.

The Indiana Division of Forestry has five full-time and one part time position allocated to forest inventory (covering state lands and the private lands enrolled in the current-use taxation program). Two positions are currently vacant, but plans are in place to refill one soon.

A continuous forest inventory where 1/5 of the land base is inventoried each year is in the 8th year. After the 5th year was completed, DOF started to re-measure the plots allowing for growth computation. A preliminary comparison is being calculated, but another year of inventory is needed to come close to a statistically-reliable growth estimate. The system design is based on 10 years to develop a reliable growth estimate.

The current growth estimate is based on 3 methods: 1) 50 FIA plots on state forests from which growth can be calculated, 2) 2005 system-wide inventory is compared to the inventories done in the 1980s and 3) Increment borings were collected during the 2005 SWI and growth was estimated using the Burrel-Ashley system. All 3 estimates of net annual growth are about 28 million bf; the cutting budget is set at 50% of that growth rate.

Auditor: MF

1.1.4. Periodic updates of *forest inventory* and recalculation of planned harvests to account for changes in growth due to *productivity* increases or decreases, including but not limited to: improved data, *long-term* drought, fertilization, *climate change*, changes in forest land ownership and tenure, or *forest health*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Harvest levels are targeted at 14 million bf per year, estimated to be 60% of growth, until better information is available. With two more years of CFI re-measurements another adjustment in harvest levels is possible. See previous indicator for a description of the inventory updates (20% of CFI plots are re-measured each year).

Auditor: MF

1.1.5. Documentation of forest practices (e.g., *planting*, fertilization and thinning) consistent with assumptions in harvest plans.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: All auditor questions regarding planned or completed forest practices were answered verbally and with data or reports if requested.

Review of tracts files for forests visited indicates they have summary of activities. Also forester inspects activity, completes Purchase Order Approval and turns it into HQ so the contractor can be paid.

90% of the harvesting involves single-tree selection, while the rest involves patch clear-cutting to maintain some even-aged patches and sun-loving species. Mixed hardwood-pine stands are being targeted for patch cuts to salvage the mostly planted pine trees and associated hardwoods, generally creating new even-aged stands of Oak-Hickory-Mixed Hardwoods.

One key forest practice driving projected growth and thus the timing of re-entry cycles involves stocking control through removal of undesirable trees. Auditors observed many marked but uncut trees in completed harvest areas. Indiana Division of Forestry personnel described planned TSI treatments, and many older treatments were visited to confirm effective implementation.

Auditor: MF

Performance Measure 1.2

Program Participants shall not convert one *forest cover type* to another *forest cover type*, unless in justified circumstances.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

1.2.1. Program Participants shall not convert one *forest cover type* to another *forest cover type*, unless the conversion:

- a. Is in compliance with relevant national and regional *policy* and legislation related to land use and forest management; and
- b. Would not convert *native* forest types that are rare and ecologically significant at the *landscape* level or put any *native* forest types at risk of becoming rare; and
- c. Does not create significant long-term adverse impacts on Forests with Exceptional Conservation Value, old-growth forests, forests critical to threatened and endangered species, and special sites.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC Transitional NC

Audit Notes: The forest management program does not convert native forest types to different types. Some areas with Virginia pine growing on former farmland outside of the native range of the species are harvested with the goal of significantly reducing the Virginia pine component in the regenerated stand. These types are not native, are not rare, and do not impact FECV old-growth of critical habitat or special sites.

Auditor: MF

1.2.2. Where a *Program Participant* intends to convert another *forest cover type*, an assessment considers:

- a. *Productivity* and *stand* quality conditions and impacts which may include social and economic values;
- b. Specific ecosystem issues related to the site such as invasive species, insect or disease issues, riparian *protection* needs and others as appropriate to site including regeneration challenges; and
- c. Ecological impacts of the conversion including a review at the site and *landscape* scale as well as consideration for any appropriate mitigation measures.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC Transitional NC

Audit Notes: All harvests are preceded by assessments.

Auditor: MF

Performance Measure 1.3

Program Participants shall not have within the scope of their certification to this *SFI Standard*, forest lands that have been converted to non-forest land use.

Indicator:

1.3.1. Forest lands converted to other land uses shall not be certified to this *SFI Standard*. This does not apply to forest lands used for forest and *wildlife* management such as *wildlife* food plots or infrastructure such as forest roads, log processing areas, trails etc.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC Transitional NC

Audit Notes: There are no lands being converted to other land uses not allowed under this indicator.

Auditor: MF

Objective 2 Forest Health and Productivity

To ensure *long-term forest productivity*, carbon storage and *conservation* of forest resources through prompt *reforestation*, *afforestation*, *minimized chemical use*, *soil conservation*, and protecting forests from damaging agents.

Performance Measure 2.1

Program Participants shall promptly reforest after final harvest.

Indicators:

2.1.1. Documented *reforestation* plans, including designation of all harvest areas for either natural, planted or direct seeded regeneration and prompt *reforestation*, unless delayed for site-specific environmental or *forest health* considerations or legal requirements, through *planting* within two years or two *planting* seasons, or by planned *natural regeneration* methods within five years.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Tract plans describe natural regeneration goals, and regeneration in adequate numbers is quite reliable, with less certainty regarding desired regeneration composition.

Auditor: MF

2.1.2. Clear criteria to judge adequate regeneration and appropriate actions to correct understocked areas and achieve acceptable species composition and stocking rates for *planting*, *direct seeding* and *natural regeneration*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Ocular regeneration checks are conducted by year 4 after overstory removal in "openings", although not in every case, and methods to document are not consistent.

Program personnel provided evidence of system used to track regeneration and the timing of required regeneration checks. Management guides (2 most-recent) all call for a regeneration review in the management schedule at the end of the plan.

Criteria to judge adequate regeneration:

- Successful regeneration required within 5 years.
- Natural Regeneration: 1,000 native species seedlings/acre
- Tree plantings: 400 stems of native species/acre
- Management guides should include regeneration expectation statement

Indiana Division of Forestry now requires management guides to include a statement about regeneration expectation for any tracts which include regeneration prescriptions. Confirmed these comments in the silvicultural prescription statements the following Resource Management Guides:

Auditor: MF

2.1.3. Plantings of exotic tree species should minimize risk to native ecosystems.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry doesn't plant exotic trees. Mostly plant native oak, generally a small number of acres confined to recently-acquired land to reforest former cropland. Some patch openings may be planted following removal of exotic pines planted decades ago on open lands.

Auditor: MF

2.1.4. *Protection* of desirable or planned advanced *natural regeneration* during harvest.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Site visits to completed timber harvests indicate advanced regeneration is not adversely impacted during harvest. Most of the desirable natural regeneration consists of hardwood species that develop vigorous sprouts if damaged during harvesting.

Auditor: MF

2.1.5. *Afforestation programs* that consider potential ecological impacts of the selection and *planting* of tree species in non-forested *landscapes*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: No afforestation is being conducted. Indiana Division of Forestry plants a small area of non-forested land, and never in non-forested landscapes. When it does plant former farmland it plants only local indigenous species, mostly oak.

Auditor: MF

Performance Measure 2.2

Program Participants shall *minimize* chemical use required to achieve management *objectives* while protecting employees, neighbors, the public and the environment, including *wildlife* and *aquatic habitats*.

Indicators:

2.2.1. *Minimized* chemical use required to achieve management *objectives*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Careful records of pesticide applications are helping managers determine the most effective formulations and techniques.

Auditor: MF

2.2.2. Use of least-toxic and narrowest-spectrum pesticides necessary to achieve management objectives.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Review of records of chemical applications in 2014 for the entire Indiana State Forest System showed that chemicals are generally used to control invasive species and/or hardwood brush. The highest volume chemical is Glyphosate, a chemical with low mammalian toxicity and a very short life in the environment. Sethoxydim (Poast) is second and is used for invasive species control/general weed control. The third most common is Triclopyr used to control Japanese Knotweed as well as Right of way vegetation control; invasive species control, TSI (deadening cut tree stems or applying basally or in frills), opening completion. These and other chemicals are applied based on experience and match label rules.

A review of records of chemical applications in 2014 and 2015 at the Harrison-Crawford State Forest showed a relatively low proportion of the certified area is treated with chemicals each year. Most treatments are to control invasive species using glyphosate or Triclopyr. The second most-common treatment work type was post-harvest TSI, generally using glyphosate, but sometimes using a mixture of Triclopyr and Imazapyr applied manually via basal bark, cut frill, or stump treatments.

Auditor: MF

2.2.3. Use of pesticides registered for the intended use and applied in accordance with label requirements.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Pesticide records and interviews with Indiana foresters who have licenses and who apply chemicals or supervise their application show that chemicals used and treatment needs match, per labels. Records include the following information:

Property Name; Date Used; Personnel; Location (Comp/Tract, other) ; Acres Treated; Pesticide Commercial Name; Active Ingredient; Gallons used; Work Type; Target Pest; "Method and comments; Include % solution and effectiveness comment"

Auditor: MF

2.2.4. The World Health Organization (WHO) type 1A and 1B pesticides shall be prohibited, except where no other viable alternative is available.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Forest chemicals are purchased centrally, and the purchasing manager checks the prohibited chemical list before prescribing to ensure that the selected chemical is not a violation.

Auditor: MF

2.2.5. Use of pesticides banned under the Stockholm Convention on Persistent Organic Pollutants (2001) shall be prohibited.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Forest chemicals are purchased centrally, and the purchasing manager checks the prohibited chemical list before prescribing to ensure that the selected chemical is not a violation.

Auditor: MF

2.2.6. Use of *integrated pest management* where feasible.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Integrated pest management is indicated by the use of proper silviculture to maintain healthy, vigorous stands. Stands are generally properly stocked; assessments of forest health incidents determine causes before treatments are selected; treatments are based on site-specific prescriptions. Salvage harvests are employed as needed, often in over-mature Virginia pine stands, but also pre-salvage of Ash, to minimize the impact and spread of insect pests.

Auditor: MF

2.2.7. Supervision of forest chemical applications by state- or provincial-trained or certified applicators.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry provides training to staff every November/December; 2015 training is scheduled December 4.

Training record for forest Chris Weidman, Resource Forester, Clark State Forest included SAF Pesticide Update 11.21.14.

Auditor: MF

2.2.8. Use of management practices appropriate to the situation, for example:

- a. notification of adjoining landowners or nearby residents concerning applications and chemicals used;
- b. appropriate multilingual signs or oral warnings;
- c. control of public road access during and immediately after applications;
- d. designation of streamside and other needed buffer strips;
- e. use of positive shutoff and minimal-drift spray valves;
- f. aerial application of forest chemicals parallel to buffer zones to *minimize* drift;
- g. monitoring of water quality or safeguards to ensure proper equipment use and *protection* of streams, lakes and other water bodies;
- h. appropriate transportation and storage of chemicals;
- i. filing of required state or provincial reports; and/or
- j. use of methods to ensure *protection of threatened and endangered* species.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Interviews confirmed some items on the list, but a full review was not done.

Auditor: MF

Performance Measure 2.3

Program Participants shall implement forest management practices to protect and maintain forest and soil productivity.

Indicators:

2.3.1. Process to identify soils vulnerable to compaction, and use of appropriate methods, including the use of soil maps where available, to avoid excessive soil disturbance.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Review of Management Guides for all timber harvests visited indicates soils maps are used and the soil information is discussed in the write-up.

Soils mapping is available on GIS, and is of high quality. Interviews with resource specialists indicates soils maps are used during tract level planning in a variety of ways, including stand delineation, gross site index estimates, and on occasion, to plan for seasonal harvests mitigation and BMP planning (e.g. highly erosive soils).

Auditor: MF

2.3.2. Use of erosion control measures to *minimize* the loss of soil and site *productivity*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Use of soil surveys in tract planning (pre-harvest), planned skid trails and BMPs confirmed by review of the Resource Management Guide.

Auditor: MF

2.3.3. Post-harvest conditions conducive to maintaining site *productivity* (e.g., limited rutting, retained down woody debris, *minimized skid trails*).

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry has a policy to use the state BMPs which have guidelines to prevent erosion.

Retained down woody debris and minimized skid trails were observed in all harvest areas. Some limited rutting was observed, but this was generally within acceptable limits

In 2013 there was an opportunity to improve practices in the area of limited rutting, and in 2014 the effectiveness of the rutting criteria was questioned. The criteria have recently (October 2015) been modified and strengthened.

Harrison-Crawford State Forest has many caves beneath; these collectively provide winter homes for most of the region's Indiana bats. For this reason the property has interim bat protection measures not allowing timber harvesting activities from April 1 through November 15. Per the internal audit, this "Results in more site damage and rutting that we want to tolerate. Indiana Division of Forestry has responded by extending contracts to allow larger harvest window. HCSF also requires a dozer to be on site (tracked equipment helps reduce damage and allows for quicker closeout)."

Auditor: MF

2.3.4. Retention of vigorous trees during partial harvesting, consistent with scientific silvicultural standards for the area.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: In 2013 there was an opportunity to improve protection of residual trees during harvesting. Some harvest sites inspected had considerable residual stem damage in places. This was not observed in 2014 or 2015. There are no formal standards defining acceptable levels of residual stand damage.

The "State Forest Procedures Manual/ Silvicultural Guide – Hardwood Management" section encourages the retention of sound vigorous trees. One resource forester described an approach of "worst first, least saved". Site visits indicated vigorous trees are retained and low-vigor, defective, malformed, declining, or off-site trees are targeted for removal in the improvement thinning / selection harvests that are implemented on the vast majority of acres harvested. Residual stem damage levels were minor in most cases; in one part of a timber harvest where

there was more residual damage than the forester deemed acceptable. The forester had noted this on the inspection and had addressed with the harvesting crew.

Auditor: MF

2.3.5. Criteria that address harvesting and site preparation to protect soil *productivity*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: "Indiana Forestry BMP Rutting Guidelines – Final" has recently been finalized and is understood by the foresters, with training underway. The long-standing policy found in all contracts has been "All log roads, log yards, and skid trails will be smoothed such that ruts (resulting from harvest operations) will be filled by the Purchaser as specified by the Seller. During harvest operations, all ruts greater than 18 inches in depth shall be promptly leveled. Upon sale closeout, no ruts shall be left that are greater than 12 inches in depth for a length of ten feet or more, unless specified by the Seller for documented purpose."

Auditor: MF

2.3.6. Road construction and skidding layout to *minimize* impacts to soil *productivity* a.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: "Indiana Forestry BMP Rutting Guidelines – Final, 10-2015" has clarified the rutting and is designed to minimize impacts to soil productivity. Training for department foresters started on September 30 and more than three-quarters of the resource managers attended. More training is scheduled for the coming months.

2014 Opportunity for Improvement was resolved: Criteria for rutting/compaction exist, but do not assure adequate protection to soils.

Auditor: MF

Performance Measure 2.4

Program Participants shall manage so as to protect forests from damaging agents, such as environmentally or economically undesirable wildfire, pests, diseases and *invasive exotic plants and animals*, to maintain and improve *long-term forest health, productivity and economic viability*.

Indicators:

2.4.1. *Program* to protect forests from damaging agents.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Foresters are quite familiar with their forests and current and potential pests. They conduct informal recon to assess forest health. Key issues on Harrison-Crawford are EAB, drought impacts on yellow-poplar, and limited amounts of chestnut oak dieback and mortality.

Procedure Manual Section F: Silvicultural guidelines: "State forest timber management should create a forested condition that is healthy and vigorous without fiber production being an overriding consideration. The forests should have a natural rather than planted look. There should be varied species composition, forest structure, and tree size to provide habitat diversity and aesthetic integrity within a contiguous-canopy forest context."

During planning (tract plans) and marking the harvest of mature or merchantable Ash trees is a priority (sanitation cutting).

Auditor: MF

2.4.2. Management to promote healthy and productive forest conditions to *minimize* susceptibility to damaging agents.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Foresters use a variety of methods to avoid logging damage to residual trees, including careful marking, communications with loggers, skid-trail layout, marking of bumper trees, and emphasis during sale inspections.

The single-tree selection parts of sales focus on stand improvement, leaving the best trees and removing low-vigor trees. Confirmed by field observations that the indicator is met. Periodic selection harvests are used to control stocking and remove unhealthy trees. Operable, productive forest are treated on roughly a 15 or 20-year cutting cycle. Patch clear-cuts target old-field plantations of exotic pines.

Auditor: MF

2.4.3. Participation in, and support of, fire and pest prevention and control *programs*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Discuss Rural/Volunteer Fire Department Assistance.

“Revenue from state forest timber sales and recreation receipts go into the state forestry fund. Fifteen percent (15%) of the net receipts from timber sales go to the general funds of the counties in which the timber sales occurred. Fifty percent of the county receipts are available to local Volunteer Fire Departments that have cooperative fire agreements with DNR up to a maximum of \$1,000 per fire department. The remaining funds are allocated at the discretion of the county.” Source: Indiana State Forest Strategic Plan 2015-2019

Auditor: MF

Performance Measure 2.5

Program Participants that deploy improved planting stock, including varietal seedlings, shall use best scientific methods.

Indicator:

2.5.1. *Program* for appropriate research, testing, evaluation and deployment of *improved planting stock*, including *varietal seedlings*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Not reviewed during the 2015 SFI Audit.

Auditor:

Objective 3 **Protection and Maintenance of Water Resources**

To protect the water quality of rivers, streams, lakes, *wetlands* and other water bodies through meeting or exceeding *best management practices*.

Performance Measure 3.1

Program Participants shall meet or exceed all applicable federal, provincial, state and local water quality laws, and meet or exceed *best management practices* developed under Canadian or U.S. Environmental Protection Agency–approved water quality *programs*.

Indicators:

3.1.1. *Program* to implement federal, state or provincial water quality *best management practices* during all phases of management activities.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **There is an Opportunity for Improvement in the maintenance of recreational trails which are placed on forest access roads or fire trails. Indiana BMP Guide, Closing Forest Roads, page 15: “Insure that all erosion control and water management measures (e.g. water bars, drainage dips, culverts and ditches) are working. See spacing rxs. In Table 1, page 12.”**

The overall program for implementing BMPs is very strong. The use of professional foresters to plan and oversee harvests, timber sale contracts with provisions to follow BMPs, pre-harvest meetings between foresters and logging contractors, sale supervision and weekly checklists signed by loggers, post-harvest inspections of all sites by a specialist, and the BMP audit system by a second-party comprise the program.

Some recreational trails which are placed on forest access roads and/or fire trails are not maintained to BMP standards for forest access roads.

Auditor: MF

3.1.2. Contract provisions that specify conformance to *best management practices*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Contracts unchanged from 2012. Confirmed that the Letter of Agreement for Sale of Timber on State Forest Land contains a BMP clause– Item #9. Timber sale contracts were reviewed in both of the state forests included in the 2015 audit and each has the BMP requirement.

Auditor: MF

3.1.3. Monitoring of overall *best management practices* implementation.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **2015: The BMP monitoring program is the most robust known to the audit team. Post-harvest BMP reviews are conducted by Indiana Division of Forestry Resource Foresters and by a comprehensive second-party process.**

Indiana Division of Forestry State Forest Properties 1996 through 2014 Forestry BMP Monitoring Results describe a long-term program of comprehensive second-party BMP audits that show high levels of implementation and success protecting resources: “The overall rates for forestry BMPs on state forests since 1996 are 86.19% application and 92.49% effectiveness in protecting the soil and water quality of the 495 sites monitored.”

First party monitoring includes at least weekly site inspections with the results documented on the Timber Sale Visitation and Evaluations. Each sale is also officially “closed out” in regards to BMP’s with an inspection by a central office forester. Documentation was reviewed for a selection of sites visited during the audit.

Auditor: MF

Performance Measure 3.2

Program Participants shall implement water, *wetland* and *riparian protection* measures based on soil type, terrain, vegetation, ecological function, harvesting system, state *best management practices (BMPs)*, provincial guidelines and other applicable factors.

Indicators:

3.2.1. Program addressing management and protection of rivers, streams, lakes, wetlands, other water bodies and riparian areas during all phases of management, including the layout and construction of roads and skid trails to maintain water reach, flow and quality.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The use of BMPs, the design of all harvest projects by trained foresters, and the review of all projects by supervisory personnel, as well as the regulatory programs of the Division of Water and Department of Environmental Management comprise such a program. Further, there is an internal audit program for BMPs following all timber harvests (see 3.1.4 above). Harvest blocks (generally tracts), ridge-top roads, and skid road systems are designed to avoid stream crossings in most harvests.

Auditor: MF

3.2.2. Mapping of rivers, streams, lakes, wetlands and other water bodies as specified in state or provincial best management practices and, where appropriate, identification on the ground.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Harvest site maps and flagging in the field showed locations of streams and stream buffers.

Auditor: MF

3.2.3. Document and implement plans to manage and protect rivers, streams, lakes, wetlands, other water bodies and riparian areas.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Field observations confirmed protection of these features, including use of buffers, care taken to design proper stream crossings and to stabilize them following completion of work. Roads are well-designed and most are well-maintained; exceptions are dual-use roads, some of which are heavily used for recreation and are not as well-maintained.

Auditor: MF

3.2.4. Plans that address wet-weather events in order to maintain water quality (e.g., forest inventory systems, wet-weather tracts, definitions of acceptable operating conditions).

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Confirmed that the “BMP Field Guide – Road and Trail Maintenance” section provides general guidelines. Managers have the authority and responsibility to halt logging activities.

Interviews with Resource Specialists and review of completed Timber Sale Visitation and Evaluations indicate they halt harvesting when wet weather becomes an issue. Challenges exist at Harrison-Crawford State Forest because of interim bat restrictions which preclude harvesting during the summer and early fall, which are the driest periods.

Auditor: MF

Objective 4 Conservation of Biological Diversity

To manage the quality and distribution of *wildlife habitats* and contribute to the *conservation of biological diversity* by developing and implementing *stand-* and *landscape-level* measures that promote a diversity of types of *habitat* and successional stages, and the *conservation* of forest plants and animals, including *aquatic species*, as well as *threatened and endangered species*, *Forests with Exceptional Conservation Value*, *old-growth forests* and ecologically important sites.

Performance Measure 4.1

Program Participants shall conserve biological diversity.

Indicators:

4.1.1. Program to incorporate the *conservation of native biological diversity*, including species, *wildlife habitats* and ecological community types at *stand* and *landscape* levels.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry employs a full-time wildlife biologist, Scott Haulton. His time is focused on special situations and on the HCP effort for Indiana bat, but he also provides support for regular work activities. The Indiana Division of Forestry has dedicated considerable resources to developing state-of-the-art bat conservation practices.

Auditor: MF

4.1.2. Development of criteria and implementation of practices, as guided by regionally based *best scientific information*, to retain *stand-level wildlife habitat* elements such as snags, stumps, mast trees, down woody debris, den trees and nest trees.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **The Indiana Division of Forestry has an exceptional program to retain stand-level wildlife habitat elements in accordance with scientific information.**

Auditor: MF

4.1.3. Document diversity of *forest cover types* and age or size classes at the individual ownership or forest tenure level, and where credible data are available, at the *landscape* scale. Working individually or collaboratively to support diversity of *native forest cover types* and age or size classes that enhance *biological diversity* at the *landscape* scale.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Indiana State Forest Strategic Plan 2015-2019 states the following goal: "Work toward a long term balance in forest stand ages and structure with 10% of forest acreage in or developing older forest conditions (e.g. nature preserves and high conservation forests) as well as 10% in early successional forests (0-20 years old)."

Efforts continue to meet this goal; openings/ patch cuts are developing early successional forests, and reserves are designated.

Auditor: MF

4.1.4. Program Participants shall participate in or incorporate the results of state, provincial, or regional *conservation* planning and priority-setting efforts to conserve biological diversity and consider these efforts in forest management planning. Examples of credible priority-setting efforts include state *wildlife* action plans, state forest action plans, relevant *habitat conservation* plans or provincial *wildlife* recovery plans.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Not reviewed during the 2015 SFI Audit.

Auditor:

4.1.5. Program to address *conservation* of known sites with viable occurrences of significant species of concern.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A
 Conformance
 Exceeds
 O.F.I.
 Major NC
 Minor NC

Audit Notes: The Indiana Division of Forestry is drafting a Habitat Conservation Plan for the Indiana bat and the Northern Long Ear Bat.

Auditor: MF

4.1.6. Identification and *protection of non-forested wetlands*, including bogs, fens and marshes, and *vernal pools* of ecological significance.

N/A
 Conformance
 Exceeds
 O.F.I.
 Major NC
 Minor NC

Audit Notes: There were no issues on any of the field sites.

Auditor: MF

4.1.7. Participation in *programs* and demonstration of activities as appropriate to limit the introduction, spread and impact of *invasive exotic plants and animals* that directly threaten or are likely to threaten *native* plant and animal communities.

N/A
 Conformance
 Exceeds
 O.F.I.
 Major NC
 Minor NC

Audit Notes: Indiana State Forest Strategic Plan 2015-2019: "Implement a 'Invasive Species' BMP pilot program in cooperation with the Governor's appointed Invasive Species Task Force on State Forest lands. Increase efforts to locate and treat invasive exotic species on state forests utilizing mechanical or chemical methods. Eliminate kudzu from state forest properties; emphasize control of, Ailanthus, bush honeysuckle, autumn olive, Japanese stiltgrass and oriental bittersweet."

The Indiana State Forest Strategic Plan 2015-2019, state forest plans, and tract plans all include sections on invasive plants.

The audit team reviewed several invasive control sites. Invasive control projects are implemented frequently, particularly for Ailanthus.

Auditor: MF

4.1.8. Consider the role of natural disturbances, including the use of prescribed or natural fire where appropriate, and *forest health* threats in relation to *biological diversity* when developing forest management plans.

N/A
 Conformance
 Exceeds
 O.F.I.
 Major NC
 Minor NC

Audit Notes: The Indiana State Forest Strategic Plan 2015-2019 and other documents as well as interviews showed that programs and plans are developed based on disturbance ecology. Long-term trends of fewer fires, due to effective fire suppression, and the effects on biodiversity are understood. Silvicultural treatments are designed to emulate the natural disturbances where possible.

Auditor: MF

Performance Measure 4.2

Program Participants shall protect threatened and endangered species, Forests with Exceptional Conservation Values (FECV) and old-growth forests.

Indicators:

4.2.1. Program to protect threatened and endangered species.

N/A
 Conformance
 Exceeds
 O.F.I.
 Major NC
 Minor NC

Audit Notes: The Indiana State Forest Strategic Plan 2015-2019 states the following goal: "Develop and implement a State Forest Habitat Conservation Plan for the federally endangered Indiana bat and the proposed listing of the northern long eared bat with the goal of obtaining an Incidental Take Permit from the U.S. Fish and Wildlife Service.

Interviewed the biologist to confirm the T&E program. Interim bat conservation measures are still in effect.

Auditor: MF

4.2.2. Program to locate and protect known sites flora and fauna associated with viable occurrences of *critically imperiled* and *imperiled* species and communities also known as *Forests with Exceptional Conservation Value*. Plans for *protection* may be developed independently or collaboratively, and may include *Program Participant* management, cooperation with other stakeholders, or use of easements, *conservation* land sales, exchanges, or other *conservation* strategies.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Not reviewed during the 2015 SFI Audit.

Auditor: MF

4.2.3. Support of and participation in plans or *programs* for the *conservation* of *old-growth forests* in the region of ownership or forest tenure.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Auditors visited two forest reserves, one of which contains large, older trees that will eventually become old-growth forests. There are few old-growth stands or elements in Indiana.

Auditor: MF

Performance Measure 4.3

Program Participants shall manage ecologically important sites in a manner that takes into account their unique qualities.

Indicators:

4.3.1. Use of information such as existing natural heritage data or expert advice in identifying or selecting ecologically important sites for *protection*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: A database of known T&E species, including G1 and G2 species, is checked during tract and sale planning. Results are documented on forms which were reviewed during the audit. When there are "hits" the Indiana Division of Forestry's Wildlife Biologist is consulted for technical assistance as needed.

Auditor: MF

4.3.2. Appropriate mapping, cataloging and management of identified ecologically important sites.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The site visit notes for Post Oak-Cedar Nature Preserve provide evidence (see below).

Auditor: MF

Performance Measure 4.4

Program Participants shall apply knowledge gained through research, science, technology and field experience to manage *wildlife habitat* and contribute to the *conservation* of *biological diversity*.

Indicators:

4.4.1. Collection of information on *Forests with Exceptional Conservation Value* and other *biodiversity*-related data through *forest inventory* processes, mapping or participation in external *programs*, such as NatureServe, state or provincial heritage *programs*, or other credible systems. Such participation may include providing non-proprietary scientific information, time and assistance by staff, or in-kind or direct financial support.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Resource Management Guides prepared in advance of each timber harvest document the results of a review of the Indiana Natural Heritage Database "to locate and identify any known endangered, threatened or rare (E.T.R.) animal species"

Auditor: MF

4.4.2. A methodology to incorporate research results and field applications of *biodiversity* and ecosystem research into forest management decisions.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The 2014 Indiana DNR, Division of Forestry Annual Report provides a comprehensive summary:

“Wildlife & Research

- In 2014, DNR Forestry provided direct support to 15 research projects investigating the ecological effects of forest management on State Forests. Most of the support went to researchers involved with the Hardwood Ecosystem Experiment (www.heeforeststudy.org/), a long-term project based at Morgan-Monroe and Yellowwood state forests.
- DNR Forestry provided support to nine graduate/post-graduate researchers in 2014 working on questions related to forest management and ecological impacts. Since 2006, DNR Forestry has provided support to 24 graduate and post-graduate researchers.
- DNR Forestry-supported researchers published eight articles in peer-reviewed scientific journals and completed three master’s theses in 2014.”

Auditor: MF

Objective 5 **Management of Visual Quality and Recreational Benefits**

To manage the visual impact of forest operations and provide recreational opportunities for the public.

Performance Measure 5.1

Program Participants shall manage the impact of harvesting on *visual quality*.

Indicators:

5.1.1. Program to address visual quality management.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Trained foresters are involved in all aspects of harvest planning and execution. The use of trained foresters (most have training in visual management) and the department's sale review process (which considers visual issues) constitute a program. Particular emphasis is made on visual quality management adjacent to recreation areas, without an effort to "hide" active forestry.

Procedure Manual Section F: Silvicultural guidelines:

"Uneven-age systems provide for some of the other benefits that state forests provide to users. Aesthetically the relatively unbroken canopies maintain their appeal and visual continuity. Human management intervention appears less severe than under even-age systems. The continuous canopy cover benefits some wildlife species that are area sensitive. With their limited disturbance, even-age systems do not appear to offer a distinct advantage over uneven-age systems in the maintenance of some species or community types in the Central Hardwoods."

"State forest timber management should create a forested condition that is healthy and vigorous without fiber production being an overriding consideration. The forests should have a natural rather than planted look. There should be varied species composition, forest structure, and tree size to provide habitat diversity and aesthetic integrity within a contiguous-canopy forest context."

Auditor: MF

5.1.2. Incorporation of aesthetic considerations in harvesting, road, landing design and management, and other management activities where visual impacts are a concern.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Observed visual buffers, careful placement of landings, neat and somewhat debris-free landings after harvests, and slash management near recreational trails.

Auditor: MF

Performance Measure 5.2

Program Participants shall manage the size, shape and placement of clearcut harvests.

Indicators:

5.2.1. Average size of clearcut harvest areas does not exceed 120 acres (50 hectares), except when necessary to meet regulatory requirements, achieve ecological *objectives* or to respond to *forest health* emergencies or other natural catastrophes.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Most regeneration openings are under 10 acres, and the larger than 20 acres have significant retention including clumps.

Auditor: MF

5.2.2. Documentation through internal records of clearcut size and the process for calculating average size.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Not reviewed during the 2015 SFI Audit.

Auditor:

Performance Measure 5.3

Program Participants shall adopt a green-up requirement or alternative methods that provide for visual quality.

Indicators:

5.3.1. *Program implementing the green-up requirement or alternative methods.*

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Clear-cutting is generally restricted to “regeneration openings” many of which already are vegetated. Most openings are buffered by extensive “matrix” patches of mature hardwood forest treated with light improvement thinning.

Auditor: MF

5.3.2. *Harvest area tracking system to demonstrate conformance with the green-up requirement or alternative methods.*

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: GIS is used, as well as formal or informal tracking for regeneration checks. Maps show regeneration openings.

Auditor: MF

5.3.3. *Trees in clearcut harvest areas are at least 3 years old or 5 feet (1.5 meters) high at the desired level of stocking before adjacent areas are clearcut, or as appropriate to address operational and economic considerations, alternative methods to reach the performance measure are utilized by the Program Participant.*

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Many regeneration openings were reviewed in the field; most had ample, tall regeneration within 3 years following harvests. No adjacent clear-cuts were observed; openings are isolated within more-extensive lightly-treated portions of stands.

Auditor: MF

Performance Measure 5.4

Program Participants shall support and promote recreational opportunities for the public.

Indicator:

5.4.1. *Provide recreational opportunities for the public, where consistent with forest management objectives.*

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **Indiana Division of Forestry provides excellent recreational opportunities for the public including walking and horse trails, camping and access to lakes and ponds.**

The Indiana State Forest Strategic Plan 2015-2019 has a recreation goal as listed below:

“State Forest Recreation:

Goal # 1: Improve State Forest recreation user experience by investing in infrastructure to bring water, wastewater treatment, camping sites, trails, education centers, lakes and other related capital assets up to market expectations with additional capital and preventative maintenance funding (Gov. Pence’s Roadmap 2014: Well-being of Hoosier Families & Communities).”

During the audit the expanding recreation program and considerable efforts to upgrade recreational facilities were observed and discussed. This expansion has been carefully planned and well-executed, with planning starting with a well-crafted strategic vision. For example, from Indiana State Forest Strategic Plan 2015-2019: Pages 8-9 of 22:

“New opportunities at Clark State Forest – such as A and AA camping sites, primitive cabins, a controlled shooting range, and horse, hiking and bike trails – could draw visitors from the 1.1 million people living twenty miles from the forest in the Louisville metro, Jeffersonville, and New Albany areas.”

Auditor: MF

Objective 6 Protection of Special Sites

To manage lands that are geologically or *culturally important* in a manner that takes into account their unique qualities.

Performance Measure 6.1

Program Participants shall identify *special sites* and manage them in a manner appropriate for their unique features.

Indicators:

6.1.1. Use of information such as existing natural heritage data, expert advice or stakeholder consultation in identifying or selecting *special sites* for *protection*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **There is an exceptional program for identifying and managing culturally important sites.**

The Indiana State Forest Strategic Plan 2015-2019 has two goals regarding identifying special sites for protection and appropriate management:

“Continue to review projects by the DoF Archaeologist to conserve and avoid significant impact on cultural and archaeological resources.” And “Continue to review the heritage database in formulating forest management decisions or conducting forest management operations, and avoid impacts to ecologically significant resources.”

Indiana Division of Forestry has a robust cultural resources identification and protection program including employing a full time archeologist. Archaeological clearance is needed for all except the most minor ground disturbing activities. Any major work on historic structures also requires clearance. Properties have awareness (lists) of cultural resources, and management activities avoid or buffer known cultural resource areas.

Auditor: MF

6.1.2. Appropriate mapping, cataloging and management of identified *special sites*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Special sites reviewed were mapped and protected, generally by buffering from activities.

Resource Management Guides prepared in advance of each timber harvest document the results of a review of the Indiana Natural Heritage Database “to locate and identify any known endangered, threatened or rare (E.T.R.) animal species”. The guides also describe protection of known cultural resources and the need to contact the division’s forest archeologist if any cultural resources are discovered. Harvest records include documentation describing cultural resources reviews. Interviewed AJ Ariens, Forestry Archeologist, Indiana Division of Forestry. Workers do basic maintenance to cemeteries as time allows. Location, condition and age of cemeteries are documented in Historic Preservation and Archaeology’s SHAARD Database.

Auditor: MF

Objective 7 Efficient Use of Fiber Resources

To *minimize* waste and ensure the efficient use of fiber resources.

Performance Measure 7.1

Program Participants shall employ appropriate forest harvesting technology and in-woods manufacturing processes and practices to *minimize* waste and ensure efficient utilization of harvested trees, where consistent with other *SFI Standard objectives*.

Indicator:

7.1.1. *Program* or monitoring system to ensure efficient utilization, which may include provisions to ensure:

- a. management of harvest residue (e.g., slash, limbs, tops) considers economic, social and environmental factors (e.g., organic and nutrient value to future forests and the potential of increased fuels build-up) and other utilization needs;
- b. training or incentives to encourage loggers to enhance utilization;
- c. exploration of markets for underutilized species and low-grade wood and alternative markets (e.g., bioenergy markets); or
- d. periodic inspections and reports noting utilization and product separation.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Harvests reviewed showed careful attention to utilizing logs efficiently, but pulpwood/firewood portions of felled trees, as well as trees not suited to sawtimber were generally left in the stands. Most forests are located far from pulpwood markets. Special markets for mulch, for local use, and for use on state infrastructure improvement projects are used when opportunities present themselves. Foresters check with pulp mills seeking certified pulp.

Indiana DNR has two positions working on development of markets for forest products.

Auditor: MF

Objective 8 Recognize and Respect *Indigenous Peoples’* Rights

To recognize and respect *Indigenous Peoples’* rights and traditional knowledge.

Performance Measure 8.1

Program Participants shall recognize and respect Indigenous Peoples’ rights.

Indicator:

8.1.1. *Program Participants* will provide a written *policy* acknowledging a commitment to recognize and respect the rights of *Indigenous Peoples*.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC-Transitional

Audit Notes: Transitional Minor Non-Conformance: The Indiana Division of Forestry does not include a policy statement acknowledging a commitment to recognize and respect the rights of *Indigenous Peoples*.

Auditor: MF

Performance Measure 8.2

Program Participants with forest management responsibilities on public lands shall confer with affected *Indigenous Peoples* with respect to sustainable forest management practices.

Indicator:

8.2.1. *Program* that includes communicating with affected *Indigenous Peoples* to enable *Program Participants* to:

- a. understand and respect traditional forest-related knowledge;
- b. identify and protect spiritually, historically, or culturally important sites;
- c. address the use of non-timber forest products of value to *Indigenous Peoples* in areas where *Program Participants* have management responsibilities on public lands; and
- d. respond to *Indigenous Peoples’* inquiries and concerns received.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Indiana Division of Forestry employs a full-time archeologist who has knowledge about tribal history and tribal use of the lands in pre-historic times. The program for archeological review includes on-site or records review of all land-disturbing activities, with shovel surveys for sites where proposed activities will have any but the most-minor disturbance. If evidence of pre-historic use is found the archeologist submits permit with the Indiana Division of Historic Preservation and Archeology. This process meets the intent of indicator 8.2.1.b.

Interviewees in the Indiana Division of Forestry are aware of general aspects of past indigenous use of forests and resources, including hunting, gathering, and Wyandotte Chert.

There are no federally-recognized tribes in the state, and existing groups are not known to be interested in gathering or using non-timber forest products from state forests. Any inquiries received would be responded to through normal processes. There is a policy and program for protecting all known historic and prehistoric archeological sites of potential significance, and most sites even if not significant and primary. Most known sites are historic (not tribal). The state has no federally-recognized tribes. The main tribe that is still active is the Miami tribe. Indiana Division of Forestry has contacted both local and federal tribes known to have been active in Indiana on two occasions, but not recently. Several responses were received but no concerns were voiced regarding the management of state forests.

Auditor: MF

Performance Measure 8.3

Program Participants are encouraged to communicate with and shall respond to local *Indigenous Peoples* with respect to sustainable forest management practices on their private lands.

Indicators:

8.3.1. *Program Participants* are aware of *traditional forest-related knowledge*, such as known cultural heritage sites, the use of wood in traditional buildings and crafts, and flora that may be used in cultural practices for food, ceremonies or medicine.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry is a public landowner; this Performance Measure does not apply.

Auditor:

8.3.2. Respond to *Indigenous Peoples'* inquiries and concerns received.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry is a public landowner; this Performance Measure does not apply.

Auditor:

Objective 9 Legal and Regulatory Compliance

To comply with applicable federal, provincial, state and local laws and regulations.

Performance Measure 9.1

Program Participants shall comply with applicable federal, provincial, state and local *forestry* and related social and environmental laws and regulations.

Indicators:

9.1.1. Access to relevant laws and regulations in appropriate locations.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Web sites, including the Indiana Code on web <http://iga.in.gov/legislative/laws/2015/ic/> . Printed regulations booklet: "State of Indiana Department of Natural Resources: Rules Affecting the Public Use of Land, Water and Facilities Owned, Leased or Licensed by the Indiana Department of Natural Resources, Effective July 1, 2013". Field foresters use the Indiana BMP manual, which has "Appendix D: Known Regulations – Summary of State and Local Forestry Regulations in Indiana Affecting Timber Harvesting".

Auditor: MF

9.1.2. System to achieve compliance with applicable federal, provincial, state, or local laws and regulations.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry's policies and procedures incorporate the laws and regulations.

Professional foresters, trained on the organization's policies, plan and oversee activities.

Plans and proposed harvests are reviewed by Indiana Division of Forestry senior managers; these managers understand the laws. Proposed harvests are reviewed by John Friedrich and other contracts by Dan Ernst. For construction projects (recreation-related mostly) the Indiana Department of Natural Resources Division of Engineering conducts advanced reviews.

Auditor: MF

9.1.3. Demonstration of commitment to legal compliance through *available regulatory action information*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: An internet search did not locate any violations.

Interviews of archeologist and timber program specialist who stated that there have not been any violations in their programs.

State forester interviewed and there were not any violations of regulations pertaining to forest management or the certified lands that occurred since the last audit or which are still open.

Auditor: MF

Performance Measure 9.2

Program Participants shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state and local levels in the country in which the *Program Participant* operates.

Indicators:

9.2.1. Written *policy* demonstrating commitment to comply with social laws, such as those covering civil rights, equal employment opportunities, anti-discrimination and anti-harassment measures, workers' compensation, ***Indigenous Peoples' rights***, workers' and communities' right to know, prevailing wages, workers' right to organize, and occupational health and safety.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The policies are available on the Indiana DNR web site and cover most of the above requirements.

Auditor: MF

9.2.2. *Forestry enterprises* will respect the rights of workers and labor representatives in a manner that encompasses the intent of the International Labor Organization (ILO) core conventions.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Indiana Division of Forestry has not “received (information) from outside stakeholders with regards to concerns or conformance pertaining to their employee relations with regards to ILO Core conventions 87, 98 and 111”?

Auditor: MF

Objective 10 Forestry Research, Science and Technology

To invest in *forestry* research, science and technology, upon which sustainable forest management decisions are based and broaden the awareness of *climate change* impacts on forests, *wildlife* and *biological diversity*.

Performance Measure 10.1

Program Participants shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners provide in-kind support or funding for forest research to improve *forest health*, *productivity* and sustainable management of forest resources, and the environmental benefits and performance of forest products.

Indicators:

10.1.1. Financial or in-kind support of research to address questions of relevance in the region of operations. Examples could include, but are not limited to, areas of forest *productivity*, water quality, biodiversity, community issues, or similar areas which build broader understanding of the benefits and impacts of forest management.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **The Indiana Division of Forestry has an exemplary program for research, particularly for issues related to management of forests to conserve ecological values and threatened or endangered species, notably bats.**

The 2014 Indiana DNR, Division of Forestry Annual Report lists significant support for research:

Recent Select Hardwood Ecological Experiment (HEE) Project Summaries:

“Indiana bats (federally endangered) and northern long-eared bats (federally proposed-endangered) were found using recently harvested areas for roosting during the summer maternity period. In 2014, an Indiana bat maternity roost was found supporting the largest number of individuals found to date on a State Forest. It was located in a recent shelterwood harvest, and the selected roost itself was a tree deadened but left standing during post-harvest timber stand improvement.

Acoustic bat echo-location surveys determined that total activity (all species) was high along harvested opening edges, with heavier use on the opening side of the edge compared to the intact forest side.

Recent summer breeding bird surveys indicate the most common bird species detected in HEE research areas are those that nest in mature forests, including red-eyed vireo, worm-eating warbler (Indiana species of special concern), Acadian flycatcher, scarlet tanager, and hooded warbler (Indiana species of special concern).

The number of woodland salamanders found within even-age, uneven-age, and control research sites was 1,943, 1,235, and 1,807 individuals, respectively. Salamander species most commonly encountered include eastern red-backed, northern zig-zag, northern slimy and southern two-lined.

Winter barred owl surveys resulted in 41 and 36 observations at Morgan-Monroe/Yellowwood state forests and Hoosier National Forest/Brown County State Park survey sites, respectively. Summer barred owl surveys resulted in 56 observations at Morgan-Monroe/Yellowwood and 30 at Hoosier NF/Brown County SP survey sites. Eastern screech owl surveys resulted in 21 observations at Morgan-Monroe/Yellowwood and 23 at Hoosier NF/Brown County SP survey sites.

A total of 125 male cerulean warblers (State endangered in Indiana) were detected during summer surveys. Detections occurred in all study units except for one control and one uneven-age management unit. Recent nest surveys indicated nesting success was 33percent and that caterpillars constituted 53 percent of nestling diet.

Recent surveys of forest moths indicate species assemblages are returning to pre-harvest composition in treated stands following changes that had been detected immediately after the HEE harvesting occurred.”

Auditor: MF

10.1.2. Research on genetically engineered trees via *forest tree biotechnology* shall adhere to all applicable federal, state, and provincial regulations and international protocols ratified by the United States and/or Canada depending on jurisdiction of management.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Indiana Division of Forestry does not conduct research on genetically engineered trees.

Auditor: MF

Performance Measure 10.2

Program Participants shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners develop or use state, provincial or regional analyses in support of their *sustainable forestry programs*.

Indicator:

10.2.1. Participation, individually and/or through cooperative efforts involving *SFI Implementation Committees* and/or associations at the national, state, provincial or regional level, in the development or use of some of the following:

- a. regeneration assessments;
- b. growth and drain assessments;
- c. *best management practices* implementation and conformance;
- d. *biodiversity conservation* information for family forest owners; and
- e. social, cultural or economic benefit assessments.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: a. regeneration assessments: U.S. Forest Service’s FIA; and CFI on state forests and on private Classified Forest Land (800,000 acres approx. included in the CFI)
 b. growth and drain assessments: Jeff Settle contributes data to the US Forest Service’s primary processing survey
 c. best management practices implementation and conformance: BMP surveys done on Indiana State Forests (every harvest) and on private Classified Forest Land (10% sample)
 e. social, cultural or economic benefit assessments: found in the Indiana Forest Assessment; also funded a public opinion survey. Indiana Division of Forestry White Paper “Forest Management and the Economy”

Auditor: MF

Performance Measure 10.3

Program Participants shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners broaden the awareness of *climate change* impacts on forests, *wildlife* and *biological diversity*.

Indicators:

10.3.1. Where available, monitor information generated from regional climate models on *long-term forest health, productivity and economic viability*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Not reviewed during the 2015 SFI Audit.

Auditor:

10.3.2. *Program Participants* are knowledgeable about *climate change* impacts on *wildlife, wildlife habitats and conservation of biological diversity* through international, national, regional or local *programs*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Not reviewed during the 2015 SFI Audit.

Auditor:

Objective 11 Training and Education

To improve the implementation of *sustainable forestry* practices through appropriate training and education *programs*.

Performance Measure 11.1

Program Participants shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the *SFI 2015-2019 Forest Management Standard*.

Indicators:

11.1.1. Written statement of commitment to the *SFI 2015-2019 Forest Management Standard* communicated throughout the organization, particularly to facility and woodland managers, and field foresters.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana State Forest Strategic Plan 2015-2019 includes a statement of commitment to the SFI 2015-2019 Forest Management Standard, as does the commitment letter signed by Jack Seifert, State Forester on October 17, 2015.

Auditor: MF

11.1.2. Assignment and understanding of roles and responsibilities for achieving *SFI 2015-2019 Forest Management Standard objectives*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Brenda Huter is the management representative with overall responsibility for the program including tracking CARs and responses. Field-related objectives are the responsibility of foresters, while the other Objectives are covered by central office.

Auditor: MF

11.1.3. Staff education and training sufficient to their roles and responsibilities.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **There is an Opportunity for Improvement in the challenges associated with frequent turnover of field forestry staff (resource managers).**

Foresters, managers, and specialists interviewed have professional degrees (mostly in forestry) from major universities, and several involved in the 2015 audit have advanced degrees. Training records reviewed show regular professional development-training.

5 of the 15 Resource Manager positions are currently vacant, and a review of turnover over the past 5 years shows that many recently-hired Resource Managers take jobs with other agencies within a few years of their initial hire. New field foresters receive considerable training and mentoring, but Indiana Division of Forestry may not be getting the full benefit of this training because of the high turnover rates.

Auditor: MF

11.1.4. Contractor education and training sufficient to their roles and responsibilities.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Revisions to logger training requirement have been developed and are being implemented.

Currently: At least one on-site worker for each forestry operation must have been through the required training: Level 1 Game of Logging including BMP training and Game of Logging for Cutters through Level 4.

2014 Opportunity for Improvement: There is an Opportunity for Improvement to more broadly include the SFI training module in the requirements for working on state lands. Indiana Division of Forestry response: Logger training curriculum going forward will contain additional elements related to some of the SFI module recommendations. (Dwayne McCoy dmccoy@dnr.in.gov coordinating).

Auditor: MF

11.1.5. *Program Participants* shall have written agreements for the use of *qualified logging professionals* and/or *certified logging professionals* (where available) and/or *wood producers* that have completed training programs and are recognized as *qualified logging professionals*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Required by contract to have at least one on-site individual during active harvesting operations. There is a process in place to police this requirement including a form found in the sale folder backed by a web site which lists the names of trained loggers.

Auditor: MF

Performance Measure 11.2

Program Participants shall work individually and/or with *SFI Implementation Committees*, logging or forestry associations, or appropriate agencies or others in the *forestry* community to foster improvement in the professionalism of *wood producers*.

Indicators:

11.2.1. Participation in or support of *SFI Implementation Committees* to establish criteria and identify delivery mechanisms for *wood producer* training courses and periodic continuing education that address:

- a. awareness of sustainable forestry principles and the SFI program;
- b. best management practices, including streamside management and road construction, maintenance and retirement;
- c. reforestation, invasive exotic plants and animals, forest resource conservation, aesthetics and special sites;
- d. awareness of responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act, and other measures to protect wildlife habitat (e.g., Forests with Exceptional Conservation Value);
- e. awareness of rare forested natural communities as identified by provincial or state agencies, or by credible organizations such as NatureServe, The Nature Conservancy, etc.
- f. logging safety;
- g. U.S. Occupational Safety and Health Administration (OSHA) and Canadian Centre for Occupational Health and Safety (CCOHS) regulations, wage and hour rules, and other provincial, state and local employment laws;
- h. transportation issues;
- i. business management;
- j. public policy and outreach; and
- k. awareness of emerging technologies.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Currently in place: BMP training for loggers (classroom and field, 1 day); Game of Logging Cutter 1, 2, 3, and 4 available and on demand; SFI-day involved to meet SFI requirements; GOL Skidder 1 and 2. Training held at State Forests, done by industry group "Indiana Hardwood Lumberman's Association".

Resolved the 2014 Opportunity for Improvement to more broadly include the SFI training module in the requirements for working on state lands.

Auditor: MF

11.2.2. The *SIC*-approved *wood producer* training programs shall have a continuing education component with coursework that supports the current training programs, safety and the principles of sustainable forestry.

Note: Requirement is new or significantly revised. Transition rules apply until December 31, 2015.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: "Logger Training Program Outline and Development" specifies continuing education under "Program Outline for Maximizing Positive Impacts of Logging". Confirmed "Agenda for Indiana Logger BMP Training, October 27, 2015"

Auditor: MF

- 11.2.3. Participation in or support of *SFI Implementation Committees* to establish criteria for recognition of logger certification *programs*, where they exist, that include:
- a. completion of *SFI Implementation Committee* recognized logger training *programs* and meeting continuing education requirements of the training *program*;
 - b. independent in-the-forest verification of conformance with the logger certification *program* standards;
 - c. compliance with all applicable laws and regulations including responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act and other measures to protect *wildlife habitat*;
 - d. use of *best management practices* to protect water quality;
 - e. logging safety;
 - f. compliance with acceptable *silviculture* and utilization standards;
 - g. aesthetic management techniques employed where applicable; and
 - h. adherence to a management or harvest plan that is site specific and agreed to by the forest landowner.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: NA Indiana does not have a logger certification program or an active SFI Implementation Committee.

Auditor: MF

Objective 12 Community Involvement and Landowner Outreach

To broaden the practice of *sustainable forestry* through public outreach, education, and involvement, and to support the efforts of *SFI Implementation Committees*.

Performance Measure 12.1

Program Participants shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, *conservation* organizations, *Indigenous Peoples* and governments, community groups, sporting organizations, labor, universities, extension agencies, the *American Tree Farm System*® and/or other landowner cooperative programs to apply *principles* of sustainable forest management.

Indicators:

12.1.1. Support, including financial, for efforts of *SFI Implementation Committees*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: There is no Indiana SFI Implementation Committee.

Auditor: MF

12.1.2. Support, individually or collaboratively, education and outreach to forest landowners describing the importance and providing implementation guidance on:

- a. best management practices;
- b. reforestation and afforestation;
- c. visual quality management;
- d. conservation objectives, such as critical wildlife habitat elements, biodiversity, threatened and endangered species, and Forests with Exceptional Conservation Value;
- e. management of harvest residue (e.g., slash, limbs, tops) considers economic, social, environmental factors (e.g., organic and nutrient value to future forests) and other utilization needs;
- f. control of invasive exotic plants and animals;
- g. characteristics of *special sites*; and
- h. reduction of wildfire risk.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Indiana State Forest Strategic Plan 2015-2019 contains a section on public education about forestry and conservation. The agency is involved in considerable outreach and education for forest landowners.

The Indiana Division of Forestry website <http://www.in.gov/dnr/forestry/2845.htm> includes subpages or documents covering: getting help from a district forester, landowner grants and cost share assistance, tree planting, classified forests, and other topics.

Auditor: MF

12.1.3. Participation in efforts to support or promote *conservation* of managed forests through voluntary market-based incentive programs such as current-use taxation programs, *Forest Legacy Program* or *conservation* easements.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Indiana Division of Forestry has an active land acquisition program. Most acquisitions are to acquire inholdings, although there are some purchases of larger blocks to expand forests. The most-recent purchase was of 54 acres added to the Jackson-Washington State Forest. The 2014 Indiana DNR, Division of Forestry Annual Report: "State Forest land acquisition added a 121-acre parcel at Morgan-Monroe State Forest."

The Indiana State Forest Strategic Plan 2015-2019 states the following goal under the heading Land Ownership and Acquisitions: "Conserve important lands through strategic acquisitions, active resource management and boundary line management. Acquire 1,500 acres of lands of strategic and/or ecological importance to the long-term

conservation of Indiana’s working forests in partnership with non-governmental organizations, the Bi-Centennial Nature Trust, the Indiana Heritage Trust, and State Forest timber revenue.”

Auditor: MF

Performance Measure 12.2

Program Participants shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.

Indicator:

12.2.1. Periodic educational opportunities promoting *sustainable forestry*, such as

- a. field tours, seminars, websites, webinars or workshops;
- b. educational trips; c. self-guided forest management trails;
- d. publication of articles, educational pamphlets or newsletters; or
- e. support for state, provincial, and local *forestry* organizations and soil and water *conservation* districts.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The Harrison-Crawford State Forest has a new, very high-quality Timber Harvest Interpretive Trail. The trail has numbered stations and a brochure that provides clear explanations of various facets of forest ecology, management, and harvesting. Timber Harvest Self-Guided Tour signs and informational kiosks are professional and informative.

There are two Nature Centers/Forest Education Centers operated at state forests. A forestry booth is set up at the Indiana State Fair. Property Newsletters and Annual Open Houses are important mechanisms to educate the public about sustainable forestry.

Auditor: MF

Performance Measure 12.3

Program Participants shall establish, at the state, provincial, or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, unions, the public or other *Program Participants* regarding practices that appear inconsistent with the *SFI Standard principles* and *objectives*.

Indicators:

12.3.1. Support for *SFI Implementation Committees* (e.g., toll-free numbers and other efforts) to address concerns about apparent nonconforming practices.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: There is no SFI Implementation Committee in Indiana. The Indiana Division of Forestry carries out the functions normally performed by such committees, including methods for public input and complaints. See next indicator.

Auditor: MF

12.3.2. Process to receive and respond to public inquiries. *SFI Implementation Committees* shall submit data annually to *SFI Inc.* regarding concerns received and responses.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: There is no SFI Implementation Committee in Indiana. The Indiana Division of Forestry has a system to track comments, including a database and a written summary. The division’s web-site provides an e-form where the public can input a comment or concern. Public comment forms are available to visitors; most are filled out by recreation users.

Auditor: MF

Objective 13 *Public Land Management Responsibilities*

To participate and implement sustainable forest management on *public lands*.

Performance Measure 13.1

Program Participants with forest management responsibilities on *public lands* shall participate in the development of *public land* planning and management processes.

Indicators:

13.1.1. Involvement in *public land* planning and management activities with appropriate governmental entities and the public.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: **Annual “State Forest Open Houses” and a comprehensive and well-organized web site contribute to an exceptional program for public involvement in public land management and planning.**

The 2015-2019 Indiana Division of Forestry Strategic Plan has been approved and public comments accepted through October 31, 2015 at which time all comments will be reviewed and plan changes considered.

20-Year Environmental Assessment is comprehensive, verging on an Environmental Impact Statement

Individual state forest management plans (property 10-year financial plans) are NOT posted on the web.

Each property has an annual open house...

Tract Plans are put on web site during a 30-day comment period, and then moved to an “Archived” section.

<http://www.in.gov/dnr/forestry/8122.htm> is the link for public comments, available in each tract plan.

Auditor: MF

13.1.2. Appropriate contact with local stakeholders over forest management issues through state, provincial, federal or independent collaboration.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Open houses for the public are held at most state forest units each year. These are advertised in newspaper, on web-site, supplemented by direct mailing to neighbors. Both forest units audited reported successful open houses in the past year, although both had attendance of fewer than 15 people.

Auditor: MF

Objective 14 Communications and Public Reporting

To increase transparency and to annually report progress on conformance with the *SFI Forest Management Standard*.

Performance Measure 14.1

A *Program Participant* shall provide a summary audit report, prepared by the *certification body*, to *SFI Inc.* after the successful completion of a certification, recertification or surveillance audit to the *SFI 2015-2019 Forest Management Standard*.

Indicator:

- 14.1.1. The summary audit report submitted by the *Program Participant* (one copy must be in English), shall include, at a minimum,
- a description of the audit process, *objectives* and scope;
 - a description of substitute *indicators*, if any, used in the audit and a rationale for each;
 - the name of *Program Participant* that was audited, including its *SFI* representative;
 - a general description of the *Program Participant's* forestland included in the audit;
 - the name of the *certification body* and *lead auditor* (names of the *audit team* members, including *technical experts* may be included at the discretion of the *audit team* and *Program Participant*);
 - the dates the audit was conducted and completed;
 - a summary of the findings, including general descriptions of evidence of conformity and any nonconformities and corrective action plans to address them, opportunities for improvement, and exceptional practices; and
 - the certification decision.

The summary audit report will be posted on the *SFI Inc.* website (www.sfiprogram.org) for public review.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: The report is found on the SFI web site.

Auditor: MF

Performance Measure 14.2

Program Participants shall report annually to *SFI Inc.* on their conformance with the *SFI 2015-2019 Forest Management Standard*.

Indicators:

- 14.2.1. Prompt response to the *SFI* annual progress report survey.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Email on 9.23.15 from Rachel Dierolf confirmed timely response to the most recent survey.

Auditor: MF

- 14.2.2. Record keeping for all the categories of information needed for *SFI* annual progress report surveys.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Indiana Division of Forestry maintains records of all activities

Auditor: MF

- 14.2.3. Maintenance of copies of past survey reports to document progress and improvements to demonstrate conformance to the *SFI 2015-2019 Forest Management Standard*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Copy of most recent (March 2015) survey was provided.

Auditor: MF

Objective 15 Management Review and Continual Improvement

To promote continual improvement in the practice of *sustainable forestry* by conducting a management review and monitoring performance.

Performance Measure 15.1

Program Participants shall establish a management review system to examine findings and progress in implementing the *SFI 2015-2019 Forest Management Standard*, to make appropriate improvements in *programs*, and to inform their employees of changes.

Indicators:

15.1.1 System to review commitments, *programs* and procedures to evaluate effectiveness.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: This program is modest in size, with a very “flat” organizational structure, and has a remarkable degree of contact between the central office management and staff specialists and the field unit managers and resource specialists (foresters). Specialists in silviculture/operations, wildlife, and archeology review every proposed activity and provide input on many projects. The system is highly effective at ensuring consistency of operations while allowing for needed variation based on local conditions.

System includes an annual management review which covers the SFI Program. It also includes an annual internal audit. This year the review was done on September 3 and included the Clark and the Harrison-Crawford State Forests and the central office issues such as upcoming updates to the state forest procedures manual and the template for the resource management guides, improvements to public comment, financial issues, HCP, invasive species and other topics.

Auditor: MF

15.1.2 System for collecting, reviewing, and reporting information to management regarding progress in achieving *SFI 2015-2019 Forest Management Standard objectives and performance measures*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Central office personnel review and approve projects, ensuring consistency and that senior management understands progress. For example John Friedrich, Property Specialist reviews all proposed timber sales for completeness of paperwork and overall compliance and maintains overall timber harvest records. Dan Ernst oversees the contracting of other services. An audit of selected timber sales is conducted by counting stumps as a financial control measure, but one which provides an additional opportunity to view results of harvests. The system includes recordkeeping, reviewing and reporting information to the SFI Team.

Auditor: MF

15.1.3 Annual review of progress by management and determination of changes and improvements necessary to continually improve conformance to the *SFI 2015-2019 Forest Management Standard*.

N/A Conformance Exceeds O.F.I. Major NC Minor NC

Audit Notes: Confirmed by a review of agenda that an annual review occurred October 15, 2015 attended by the management team including the State Forester and Assistant State Forester, the Forest Certification Coordinator, the Forestry Wildlife Specialist, and the Forestry Archaeologist. The review included a review of the SFI Objectives, internal audit results, identifying and summarizing SFI accomplishments and needed improvements and included some action items, but mostly summarized completion of needed actions from the third-party audits of 2014. The process appears to be robust and effective.

Internal audit action items were resolved, the system for tracking these is informal but effective.

Auditor: MF

(End)

Appendix 4

Indiana Division of Forestry DNR 2015 Audit Site Visits

Clark State Forest, Monday October 19, 2015; Mike Ferrucci and Paul Pingrey

1. Invasive Control Site. Walnut plantation that had 25% of understory occupied by invasive Autumn Olive shrubs. The stems were cut and the stumps treated with Glyphosate in early summer, with 95% or more control. Reviewed process to developing and implementing the prescription, including environmental protections, worker use of PPE, and training of resource foresters.
2. Active timber harvest Number 6301401 in Compartment 7, Tract 8. Most of area is receiving a light “selection” thinning, with scattered openings where most trees were cut. Interviewed Max Lamrey who owns the logging company, operates the loader, and has the required training. PPE use not required by state, although emphasized during inspections. Observations: information sign, rocked entrance road preventing mud from reaching highway, visual buffer with light to no cutting along public road, minimal residual stem damage except in one area, limited rutting, effective sale administration including regular inspections and completion of inspection form.
3. Clark State Forest Horse Camp, expansion project. Investing \$250,000 in central comfort station and similar amount for campground expansion.
4. White Oak Nature Preserve. Example of a representative sample area (white oak-dominated mature forest) that is managed by the Indiana Division of Nature Preserves. Invasive control is the primary activity, although other actions could include prescribed fire. Observed encroachment by beech and sugar maple in understory and trailhead sign-in station, trail, and footbridge.
5. Completed Sale 6301301 in Compartment 8, Tract 11 including areas of selection thinning and regeneration openings. Confirmed that openings have dense, thriving regeneration that is dominated by tulip-poplar with many other mixed-hardwood species, some invasive *Ailanthus altissima* and scattered but likely competitive oak seedlings and very competitive oak stump sprouts. Policy is to conduct regeneration monitoring three years after openings are created, but understaffing has led to challenges implementing. There are also CFI plots that can include regeneration openings. A large, old culvert has been stranded in the intermittent stream at the crossing.
6. Completed Sale 630152 in Compartment 12, Tract 9 cut in early summer of 2015. Tract plan describes three types, with 9 acres of openings mostly in the Virginia-pine type on the upper flats to regenerate, and light selection thinning of the hardwood and oak-hickory types on slopes. A large uncut buffer protects the intermittent stream, and two old home sites were also protected using buffers or careful selective tree harvest under direct observation by forester.

Harrison-Crawford State Forest, Tuesday October 20, 2015; Mike Ferrucci and Paul Pingrey

1. Compartment 21, Tract 04, completed harvest and TSI. Drove from office to gated forest road. Dwayne was approached at tract gate by a neighbor wanting to make a point about his right to use a horse trail. Drove in and noticed that the forest road is being used as an extension of an ATV trail coming from adjoining neighbor’s land. (Conservation Officer at dinner tonight said the neighbor has a disabled hunter permit and sometimes drives an ATV on the forest road.) We went in about a half mile to a harvest opening that had received TSI treatment. Mike walked through the regen area (found some oaks and lots of other hardwood saplings), and I walked with Wildlife Biologist Scott and discussed his Indiana bat monitoring surveys. He uses acoustic recorders that are used to count bats via software analysis. We arrived at a dug pond where Scott said he finds high numbers of bats. He’d like to use ponds as a bat mitigation strategy, but FWS doesn’t recognize them.
2. Compartment 23, Tract 01. Visited another completed harvest/TSI by walking in on the “Adventure Trail”, a three-day hiking loop. The TSI work had focused on removing unwanted beech, ailanthus, paulownia and invasive grasses. On the walk out I had a good discussion with AJ (the Forestry Archeologist) about services she

provides. She logs about 150 data requests from Classified Forests and 100 data requests from State Forests per year. For Classified Forests, she does a database check only and reports any hits back to the foresters. For State Forest activities, she both checks the archeology database and does a site inspection prior to new soil disturbing management. We also talked about stakeholder outreach efforts to Native American tribes. She said that she is working with DNR's Division of Historic Preservation and Archeology on re-establishing a Native American consultation committee that became inactive during the last governor's administration. Other efforts to communicate with tribes in relation to the Forestry Strategic Plan development have not been successful.

3. Drove a well-maintained forest road. Dwayne explained how seasonal logging restrictions (due to bats and other issues) have forced more winter logging when conditions are wetter. Roads have been improved to handle to wet-weather traffic and to accommodate semi-trailer length logging trucks. Dwayne received logging road construction training in college. That, plus a lot of practical experience, have qualified him as the main road construction expert. He trains other State Forest personnel on road techniques.
4. Switched to a minimum-maintenance road also used as an equestrian trail. Discussed equestrian impacts on road.
5. Looked at a completed individual selection – group selection harvest. Elena guided us to old logging skidder trails to show water diversions and road close-out efforts. Discussion turned to post sale audits used to count stumps and verify that the final harvest conformed to the sale contract. Ten percent of closed sales are inspected annually for audits. The audits are intended to avoid any allegations that foresters might be allowing loggers to take additional trees on the side. (Apparently a state forester was fired in the 1980's after fraud was discovered.)
6. "Indian Shelter" overlook lunch site. Open-door, primitive camping shelter on "Adventure Trail".
7. Wayne showed us a marked (inactive) harvest in large mature oak-mixed hardwood stand. Site had sinkhole type depressions. Noted a few 40-inch diameter trees, some of which were left to grow. Wayne explained his marking technique and order of removal. Discussion at the site about silvicultural prescription terminology. Although the foresters describe the work here as a type of selection cutting (primarily for PR purposes), they are in fact doing shelterwood harvests and understand their methods as a variation of even-aged management.
8. Stopped at another post-harvest TSI site. Noted good retention of snags and shag-bark hickory trees. Disturbed soil near the landing had a surprising number of sycamore seedlings, but foresters said they are not likely to last long.
9. Cold Friday Cemetery. Dwayne explained the history of the site, including a pre-Depression era settlement, church and school. AJ described a Phase 1 inventory she had completed of all cemeteries on State Forests (GPS location, basic history, photographs of tombstones). She will have summer interns assist with a more detailed Phase 2 inventory, including logging individual markers and doing a deed search to discover who actually owns the land. All cemetery work is done in cooperation with DHPA.
10. Post Oak-Cedar Nature Preserve. In Indiana, post oaks occur almost exclusively in the southern third of the state. Their leaves are said to resemble a Maltese cross (some people call the tree the crucifixion oak). The preserve has a short loop trail with numbered stations. Observed how prescribed burning is being used to maintain/improve the post-oak forest (an example of active management of an HCVF site). Tract was one of Indiana's first nature preserves. Property is adjacent to O'Bannon Woods State Park. [Noted that a number of karst caves in the area are closed to public access due to white-nose syndrome bat disease spread risk.]
11. Wyandotte Lake/wetland impoundment near Blue River. Stakeholders requested that the lake be drained and dredged during recent strategic plan meeting. Jack says work would be very expensive (\$100,000+ for

materials alone). With a limited Forestry budget, restoring this lake is not a top priority. The Division will, however, respond to stakeholder comments in the strategic plan.

12. Leavenworth Barrens/Glades. Remnant barrens occur in isolated and widely separated spots throughout a 700 acre woodland-prairie preserve. The “barrens” openings are relatively small, and inter-mixed with hardwood forests that are also being managed with fire. DNR has some trouble from neighbors who object to smoke from the Rx burns. Discussion at the site about what [ecological assessment/justification](#) was used to dedicate the property for nature preserve use.

Harrison-Crawford State Forest, Wednesday October 21, 2015; Mike Ferrucci and Paul Pingrey

1. Sale #6341406 active harvest suspended per program to avoid potential impacts to Indiana bats. Compartment 19, Tract 5; Compartment 26, Tracts 02 and 03. A very visible harvest bordering the state park’s campground access road and several recreational trails. Marking and completed harvesting assessed to be high quality with no issues.
2. Timber Harvest Interpretive Trail. The trail has numbered stations and a brochure that provides clear explanations of various facets of forest ecology, management, and harvesting. Timber Harvest Self-Guided Tour signs and informational kiosks are professional and informative.
3. Fox Hollow Fire Trail/Horse Trail/Wagon Route. The steep portion of this trail has a considerable amount of surface erosion and gullying. Managers described considerable rain events in the first half of the summer, and challenges maintaining the water control structures.
4. Twin Chimney historic home site foundation adjacent to Twin Chimney’s Horse Trail. Ruins of a farmhouse built in the 1860s but which burned down a hundred years ago. Forestry Archeologist described plans to protect and rehabilitate the site. Currently, large trees are growing out of the cellar foundation and stone work is crumbling. State Forester said that plans for the site will be discussed at the annual open house and public input taken.
5. Indiana Tree Project planting site (Fox Hollow Wildlife Management Area). The project mentioned in the State Forest Strategic Plan encourages people to donate \$10 to plant a tree to, “help wildlife, prevent soil erosion, support our state’s largest agricultural industry, and help bring back natural beauty to our state.” This old field and was planted to hardwoods last spring. A small pond on the site was the source of fill material for a State Forest shop construction. Forestry Archeologist said that the site was carefully examined for artifacts before any soil disturbance was allowed.
6. Compartment 19, Tract 08. 2015 TSI area. Harvested in 1989 and again in 2012. Confirmed effective general TSI and small area of more intensive understory control. Forester explained how she administered the TSI contract and required the consulting forester to come back and remove tops from a hiking trail.
7. Fox Hollow Disabled Hunter Trail, flat portion near Fox Hollow WMA. Trail/road here is in very good condition, water management structures functioning.
8. Fox Hollow Wildlife Management Area. Reviewed field maintenance and planting areas.

Appendix 6

NSF Audit Attendance Sheet

Company Name: Indiana Division of Forestry FRS # 6L841

Location (Plant # and/or City & State): Indianapolis, Indiana

Type of Audit: SFI 2015-2019 Update, Surveillance Audit

Opening Meeting Date: October 19, 2015 Closing Meeting Date: October 21, 2015

NAME (Printed)	TITLE/POSITION	OPENING MEETING (Initials)	CLOSING MEETING (Initials)
Mike Ferrucci	NSF International / SFI Lead Auditor	MF	MF
Paul Pingrey	SCS Global / FSC Lead Auditor	PP	PP
Brenda Huter	Forest Certification Coordinator, Indiana Division of Forestry	BH	BH
John Seifert	State Forester and Director, Indiana Division of Forestry	JS	JS
Dan Ernst	Assistant State Forester, Indiana Division of Forestry	DE	DE
John Friedrich	Property Specialist, Indiana Division of Forestry	JF	JF
Scott Haulton	Forestry Wildlife Specialist, Indiana Division of Forestry	SH	SH
AJ Ariens	Forestry Archaeologist, Indiana Division of Forestry	AJA	AJA
Clark State Forest			
Pat Cleary	Property Manager Clark and Deam Lake	PC	
Gina Wilcoxon	Naturalist/Forester Deam Lake/Clark State Forest	GW	
Chris Wiedamann	Resource Forester, Assistant Property Manager	CW	
Harrison-Crawford			
S.F.	Property Manager		DS
Dwane Sieg	Resource Forester		WW
Wayne Werne	Resource Forester		EW
Elena Wilcoxon	Conservation Officer		
Jim Hash	District Forester		
Abby Irwin			

Appendix 6

Form for Reporting SFI/PEFC Certification:

Modified scope is the only change.