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

Indiana Department of Natural Resources, Division of Forestry

SCS-FM/COC-00099N

402 West Washington Street, Room W296
Indianapolis, Indiana, 46204

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

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

DATE OF FIELD AUDIT
24-28/Oct/2011
DATE OF LAST UPDATE
14/June/2012

Organization of the Report

This report of the results of our evaluation is divided into two sections. Section A provides the public summary and background information that is required by the Forest Stewardship Council. This section is made available to the general public and is intended to provide an overview of the evaluation process, the management programs and policies applied to the forest, and the results of the evaluation. Section A will be posted on the FSC Certificate Database (<http://info.fsc.org/>) no less than 30 days after issue of the certificate. Section B contains more detailed results and information for the use of by the FME.

FOREWORD

Scientific Certification Systems (SCS) is a certification body accredited by the Forest Stewardship Council to conduct forest management and chain of custody evaluations. Under the FSC/SCS certification system, forest management enterprises (FMEs) meeting international standards of forest stewardship can be certified as “well managed,” thereby permitting the FME’s use of the FSC endorsement and logo in the marketplace subject to regular FSC/SCS oversight.

SCS deploys interdisciplinary teams of natural resource specialists and other experts in forested regions all over the world to conduct evaluations of forest management. SCS evaluation teams collect and analyze written materials, conduct interviews with FME staff and key stakeholders, and completes field and office audits of subject forest management units (FMUs) as part of certification evaluations. Upon completion of the fact-finding phase of all evaluations, SCS teams determine conformance to the FSC Principles and Criteria.

All items marked with an asterisk (*) are not required for FMUs that qualify as single SLIMFs.

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Section A – Public Summary

1.0 GENERAL INFORMATION

1.1 Certificate registration information

1.1.1.a Name and Contact Information

Organization name	Indiana Department of Natural Resources, Division of Forestry		
Contact person	John Seifert		
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	Indianapolis, Indiana 46204	Fax	
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1.1.1.b FSC Sales Information

<input type="checkbox"/> FSC Sales contact information same as above.			
FSC salesperson	Brenda Huter		
Address	402 West Washington Street, Room W296	Telephone	317-232-0142
	Indianapolis, Indiana 46204	Fax	
	United States	e-mail	bhuter@dnr.in.gov
		Website	www.inforestryx.com

1.1.2 Scope of Certificate (see [Appendix 1](#) for further details)

Certificate Type	<input checked="" type="checkbox"/> Single FMU	<input type="checkbox"/> Multiple FMU [†]
	<input type="checkbox"/> Group	
SLIMF <i>if applicable</i> <i>All items marked with an asterisk (*) are not required for single SLIMFs.</i>	<input type="checkbox"/> Small SLIMF certificate	<input type="checkbox"/> Low intensity SLIMF certificate
	<input type="checkbox"/> Group SLIMF certificate	
Group Members <i>if applicable</i>	NA	
Number of FMU's in scope of certificate	NA	
Geographic location of non-SLIMF FMU(s)‡	Latitude: W 86 degrees 10 minutes	
	Longitude: N 39 degrees 46 minutes	
Forest zone ^{1,2}	<input type="checkbox"/> Boreal	<input checked="" type="checkbox"/> Temperate
	<input type="checkbox"/> Subtropical	<input type="checkbox"/> Tropical
Total forest area in scope of certificate which is:		
privately managed³	0 ac	

¹ According to the Holdridge life zone classification scheme.

² If more than one zone is applicable, please include the total area for each forest zone.

state managed	150,000 acres		
community managed⁴	0 ac		
Number of FMUs in scope that are:			
less than 100 ha in area	0	100 - 1000 ha in area	0
1000 - 10 000 ha in area	0	more than 10 000 ha in area	1
Total forest area in scope of certificate which is included in FMUs that:			
are less than 100 ha in area		0	
are between 100 ha and 1000 ha in area		0	
meet the eligibility criteria as <i>low intensity</i> SLIMF FMUs		0	
Division of FMUs into manageable units:			
The Division of Forestry (DOF) is a unit of the Department of Natural Resources, a state agency within the executive branch of the Indiana state government. DOF divides the FMU into State Forests. Each State Forest is then divided into tracts that are the units upon which all forest management activities are based.			
*Audit team must complete Appendix 5			
‡See section 1.1.3 for Non-SLIMF group members			

1.2 Areas outside of the scope of certification

Applicability of FSC partial certification and excision policy (FSC-POL-20-002 and SCS-SOP-FM-10)		
1. Are there any lands owned or managed by the applicant not included in the scope of the certification evaluation?	<input type="checkbox"/> Yes <i>Continue to question 2.</i>	<input checked="" type="checkbox"/> No, all forestland owned or managed by the applicant is included in the scope. <i>Finished with this section.</i>
2. What is the nature of the land(s) outside of the scope of evaluation? Check all that apply.	<input type="checkbox"/> Applicant owns and/or manages other forestland (FMUs) not under evaluation. <i>Complete this section.</i>	<input type="checkbox"/> Applicant wishes to excise portions of the FMU(s) under evaluation from the scope of certification. <i>Complete this section.</i>
Explanation for exclusion of FMUs and/or excision:		
Control measures to prevent mixing of certified and non-certified product (C8.3):		

³ The category of 'private management' includes state owned forests that are leased to private companies for management, e.g. through a concession system.

⁴ A community managed forest management unit is one in which the management and use of the forest and tree resources is controlled by local communities.

Description of FMUs excluded from or forested area excised from the scope of certification:		
Name of FMU or Stand	Location (city, state, country)	Size (ha or ac)

FSC will only allow its association with organizations that are not directly or indirectly involved in the unacceptable activities defined in FSC-POL-01-004.

1.3 Standards used

Box 1.3.1. – Applicable FSC-Accredited Standards		
Title	Version	Date of Finalization
FSC US Forest Management Standard	V1-0	8 – July – 2010

All standards employed are available on the websites of FSC International (www.fsc.org), the FSC-US (www.fscus.org) or the SCS Forest Conservation Program homepage (www.scs-certified.com/forestry). Standards are also available, upon request, from Scientific Certification Systems (www.scs-certified.com).

1.4 Conversion Table English Units to Metric Units (Omit if not necessary)

Length Conversion Factors		
To convert from	To	multiply by
Mile (US Statute)	Kilometer (km)	1.609347
Foot (ft)	Meter (m)	0.3048
Yard (yd)	Meter (m)	0.9144
Area Conversion Factors		
To convert from	To	multiply by
Square foot (sq ft)	Square meter (m ²)	0.09290304
Acre (ac)	Hectare (ha)	0.4047
Volume Conversion Factors		
To convert from	To	multiply by
Cubic foot (cu ft)	Cubic meter (m ³)	0.02831685
Gallon (gal)	Liter (l)	4.546
Quick reference		
1 acre	= 0.404686 ha	
1,000 acres	= 404.686 ha	
1 board foot	= 0.00348 cubic meters	
1,000 board feet	= 3.48 cubic meters	
1 cubic foot	= 0.028317 cubic meters	

2.0 Description of Forest Management

2.1 Management Context*

2.1.1 Regulatory context

Box 2.1.1.1.	
Pertinent Regulations at the National Level	<ul style="list-style-type: none">• Endangered Species Act• Clean Water Act (Section 404 wetland protection)• Occupational Safety and Health Act• National Historic Preservation Act• Archaeological and Historic Preservation Act• Americans with Disabilities Act• U.S. ratified treaties, including CITES and tribal treaties• Lacey Act
Pertinent Regulations at the State/Local Level	<ul style="list-style-type: none">• IC 14-23-4-1• IC25-36.5-1-2• IC 14-32• IC 32-30• Watershed and County ordinances

Regulatory context description

Four principle state regulations affect Division of Forestry management:

IC 14-23-4-1 Sec. 1. (a) states “It is the public policy of Indiana to protect and conserve the timber, water resources, wildlife, and topsoil in the forests owned and operated by the division of forestry for the equal enjoyment and guaranteed use of future generations. However, by the employment of good husbandry, timber that has a substantial commercial value may be removed in a manner that benefits the growth of saplings and other trees by thinnings, improvement cuttings, and harvest processes and at the same time provides a source of revenue to the state and counties and provides local markets with a further source of building material.”

IC25-36.5-1-2 establishes the registration of timber buyers, stating that “. . . no person shall engage in the business of timber buying in the state of Indiana without a registration certificate issued by the department. Application for Indiana registration to engage in the business of timber buying shall be filed with the department. Such application shall set forth the name of the applicant, its principal officers if the applicant is a corporation, its managers and members if the applicant is a limited liability company, or the partners if the applicant is a partnership, the location of any principal office or place of business of the applicant, the counties in this state from which the applicant proposes to engage in the business of timber buying and such additional information as the department by regulation may require.

IC 14-32 declares “(1) That the land and water resources of Indiana are among the basic assets of Indiana and that the proper management of these resources is necessary to protect and promote the health, safety, and general welfare of the people of Indiana. (2) That improper land use practices and failure to control and use rainfall and runoff water cause and contribute to deterioration and waste of these resources of Indiana. (3) That the breaking of natural grass, plant, and forest cover has interfered with the natural factors of soil stabilization, causing loosening of soil and exhaustion of humus and developing a soil condition that favors excessive runoff and erosion, with the following results:

(A) The topsoil is being blown and washed out of the fields and pastures.

(B) There has been an accelerated washing of sloping fields.

(C) These processes of erosion by wind and water speed up with removal of the topsoil, exposing the less absorptive, less protective, less productive, and more erosive subsoil.” The code further establishes the policy to “. . . provide for the proper management of soil and water resources, the control and prevention of soil erosion, the prevention of flood water and sediment damage, the prevention of water quality impairment, and the conservation development, use, and disposal of water in the watersheds of Indiana . . .”

IC 32-30 defines forestry operations as an agricultural activity.

Watershed and County ordinances, where they exist, may place restrictions on harvesting or road construction activities or require that certain management practices be implemented during such activities.

2.1.2 Environmental Context

The Habitat Conservation Plan (HCP) for the Indiana Bat and Grey Bat is in the process of being updated and interim HCP guidelines are in place to guide the protection of Indiana Bat populations. Despite being in draft form, it provides an excellent description of the environmental context related to the forests managed by the DOF (*The Habitat Conservation Plan for Indiana Bat and Grey Bat on Indiana State Forests v. Oct, 2006* (hereafter referred to as “HCP”)). The HCP provides the following discussion on the Indiana forests environmental context:

“The climate of Indiana is dependent on latitude, which ranges from 38°N to nearly 42°N. The monthly mean temperature in southern portions of the state is 54°F compared to 50°F in northern areas (Scheeringa 2002). Annual mean precipitation ranges from 37 inches in the north to 47 inches in the south (Scheeringa 2002), although portions of northern Indiana that border Lake Michigan receive high amounts of precipitation owing to the lake effect. Across the state, May is typically the wettest month and rainfall decreases as summer progresses. The growing season in southern Indiana is approximately 180 to 200 days (Ponder 2004). Relative humidity is greater in the north than the south. Cloudiness is greater in winter than in autumn. The sun is visible approximately 65 percent of daylight hours in summer and 30 percent in winter. The northern part of the state, influenced by Lake Michigan, is

generally cloudier in winter than the southern half of Indiana. The Gulf of Mexico also affects the climate of Indiana by supplying warm, moist air that often collides with cooler, drier air from Canada to produce precipitation (Scheeringa 2002).

Most lands administered by DOF are south of the southernmost boundary of the Illinoian and Wisconsinan glaciers. Retreat of the Wisconsin glacier set the stage for an extended transitional period for forests of Indiana. Forests of the region were molded by these past environmental influences and formed a mosaic of oak-hickory, mixed-, and western mesophytic communities (Braun 1950). Oak-hickory and beech-maple associations that followed the moisture gradients of local topography and physiography dominated climax community composition; mixed mesophytic forest communities were generally found on northerly slopes, and oak-hickory on drier slopes, ridges, and areas with a southerly aspect.

Today, Oak-hickory habitat is the largest component of forests of Indiana, comprising 59.3 percent of the state's total forest cover (Woodall et al. 2004). Oak ecosystems are also prominent across the country, covering 114 million acres (Jackson and Buckley 2004). Some upland oak communities are physiographic climax communities that are self-perpetuating along drier ridges. However, many oak communities are disturbance-dependent and much of the oak-dominated forest present today developed as a result of fires set by Native Americans and intensive agriculture that followed European settlement. These activities increased light availability, reduced competition, dried soils, and created conditions suitable for establishment and maintenance of oak communities.

Indiana's forest, like the majority of forested regions in the eastern United States, is second growth forest. Due to the ecological impact of European settlement on forests of Indiana, no virgin forest (forest that reached maturity uninfluenced by human activity) remains on lands administered by DOF. Over 85 percent of Indiana was covered by forest as recently as 200 years ago (Woodall et al. 2004). Indiana's population grew from approximately 20,000 in the 1700s to almost 1.5 million people in 1860. During this time, approximately half of the state's forests were lost and, by 1900, only 7 percent of Indiana's original forest-cover remained (Woodall et al. 2004). Indiana's forests today are composed of second-growth stands that bear little resemblance to original forest communities."

The Indiana state forest system, established in 1903, was one of the first in the country. The first lands acquired and incorporated into the state forest system were eroding farm fields, pasture, or cut-over timberland, and were generally of marginal economic value. Most woodlands had been high-graded and residual trees were often poor quality, low vigor trees with defects from forest fires and livestock grazing. Many cropped areas had steep slopes or erodible soils and without modern conservation farming practices, the topsoil was quickly depleted and lost. The poorer subsoil was unable to support continued agriculture. The first management prescriptions emphasized erosion control and restoration of long-term productive potential of the land.

In the 1960s, timber management improved with the arrival of professional foresters and improved record-keeping on state forest properties. In the 1970s, the first timber management procedures were written and timber management activities increased. Today, timber management has developed into integrated forest resource management that involves the integration of ecosystem management and ecological classification concepts. The degraded, cut-over forest of a few decades ago is now characterized by stands of medium to large sawtimber (>11" dbh). Over 20 cover types, containing over 50 species of trees are represented on state forest land.

DOF lands support many natural habitat types throughout Indiana including barrens, upland forests, floodplain forests, and riparian corridors. Each habitat supports a diversity of wildlife species, some of which are unique. Currently 203 fish, 38 amphibian, 53 reptilian, 393 avian, and 57 mammalian species occur in Indiana (Simon et al. 2002).

Barrens occur where soils are thin and bedrock is exposed, usually on ridge tops. Post oak and blackjack oak are scattered in open areas dominated by grasses and forbs more commonly encountered on dry prairies. Wildlife species typical of barren communities include lark sparrow, black king snake, midland rat snake, and Allegheny woodrat.

Oak-hickory and mixed hardwood forests dominate DOF lands in Indiana. Ovenbird, summer tanager, rose-breasted grosbeak, white-tailed deer, and eastern box turtle are common in these deciduous forest communities. Populations of wild turkey, blue jay, eastern chipmunk, and fox, gray, and southern flying squirrels are dependent on acorns and other nuts in this forest community.

Cerulean warbler, yellow-throated warbler, and several species of amphibians are characteristic in floodplain forests, particularly oxbows, sloughs, and backwaters of southwestern Indiana. Seasonally inundated portions of floodplains are home to gray tree frog, wood frog, marbled and small-mouthed salamander, and other amphibians dependent on ephemeral pools in floodplain forests.

Riparian corridors are narrow strips of forested land along rivers or streams. Although they are a small percentage of DOF lands, they are important as buffers and act as ecological links between uplands and aquatic habitats. Because of their transitional nature in the landscape, riparian corridors support a rich diversity of wildlife. Several bird species, such as Louisiana water thrush, prothonotary warbler, belted kingfisher, red-shouldered hawk, and yellow and black-crowned night-heron are dependent on wooded corridors for nesting and feeding. Riparian corridors are also foraging and dispersal areas for Indiana bat, river otter, weasel, and mink."

Box 2.1.2.1.
Environmental safeguards:
DOF Environmental Assessment on the increased emphasis on management and sustainability of oak-

hickory communities on the Indiana State Forest System 2008 documents: 1) Forest community types and development, size class and/or successional stages, and associated natural disturbance regimes; 2) Rare, Threatened and Endangered (RTE) species and rare ecological communities (including plant communities); 3) Other habitats and species of management concern; 4) Water resources and associated riparian habitats and hydrologic functions; 5) Soil resources; and 6) Historic conditions on the FMU related to forest community types and development, size class and/or successional stages, and a broad comparison of historic and current conditions. Short term site impacts are addressed when writing the resource management plan.

The Indiana Bat HCP process was stalled and there has been some concern from stakeholders and USFWS (interview with Scott Pruitt). Indiana DOF intends to improve the HCP and has contracted a project "Habitat conservation plan development and implementation for the Indiana Bat on Indiana State Forests" with Purdue University. This project will develop a habitat suitability model for Indiana Bat based on remotely sensed habitat data. Site level management guidelines have been developed for a number of threatened and endangered (T and E) species (Indiana Bat, Timber Rattlesnake). BMPs are implemented to protect soil resources and riparian habitat.

Management strategy for the identification and protection of rare, threatened and endangered species and their habitats:

DOF has a program to protect threatened and endangered species. Training is periodically provided on endangered species identification and management, most notably for Indiana bat habitat. T and E species locations are identified as part of the process of writing the resource management guide prior to management activities. When T and E species are known to occur (by querying the Natural Heritage Database), staff will determine appropriate steps to protect the species. These steps may include a consultation with the biologist or ecologist or written species-specific management plan to accommodate individual species requirements. Staff consult the Division of Nature Preserves within the DNR and the NatureServe website to search for management guidelines for T and E species.

2.1.3 Socioeconomic Context

According to the HCP (draft v. Oct 2006):

"The population of the State of Indiana in 2004 was 6,237,569, a 2.3 percent increase from population estimates in 2000 (IBRC 2005). Indiana's population growth has averaged 0.6 percent over the past five years as compared to the national level of 1 percent. The highest population growth occurred in Marion County. Nine of 92 counties in Indiana make up nearly 45 percent of the state's population. Approximately three-quarters of the land in Indiana is used for agriculture. Agriculture and food processing are an intrinsic part of the state's economy, contributing \$17 million annually and supporting 500,000 jobs (Indiana Land Resources Council 2003). Indiana ranks 9th overall in the nation for crop production. Corn and soybeans were the leading source of income for Indiana farmers in 2004 and amounted to \$3.42 billion. Corn, soybeans, livestock production, dairy, and eggs accounted for over 90 percent of agricultural cash receipts in Indiana in 2004 (Indiana Agricultural Statistics Service 2005).

“Approximately 20 percent of Indiana is forested. Of Indiana’s nearly 23 million acres, 4.5 million are forest land. Most forests are located in the southern half of the state, south of Indianapolis. Approximately 537,000 acres of Indiana forest land are publicly owned: 196,000 acres are held in national forests; 150,000 are in state forests and 191,000 are in other public ownerships, including military bases, fish and wildlife areas and state parks (Evergreen 1998

Indiana forest products industry is the 6th largest employer in Indiana. (Purdue University through data from Census of Manufacturers). Indiana forest products industry employees over 56,000 people with most of the industry concentrated in the southern half of the state (Evergreen 1998). Forest products manufacturing is a \$2.55 billion a year industry in Indiana (Evergreen 1998). Of 56,000 people working in Indiana’s timber industry, almost 86 percent work for secondary manufacturers, including furniture and cabinet makers and companies that manufacture flooring, doors, window frames, millwork, pallets and hundreds of other structural and decorative products made from hardwood. Indiana ranks 18th nationally in value added for all forest-based manufacturing industries and 1st nationally in value added manufacturing for both wood products and manufactured office furniture. Indiana’s economy is diverse and growing rapidly; but many southern counties are more than 50 percent dependent on revenues and wages generated by forest products manufacturers (Evergreen 1998). The 1997 Economic Census data determined there were 205 primary mills and 926 secondary manufacturing facilities in Indiana. Primary mills are those mills that use logs as their primary raw material to produce various forest products. Secondary manufacturing refers to the drying, cutting, and assembly of lumber and other wood-based primary products into parts and finished products.”

The biggest change since the HCP was written has been the global economic downturn that started in 2008. While a decline in production would be in line with national trends in the forestry and forest products industries, it is reasonable to conclude that much of the information on forestry and secondary manufacturing remains true for the State of Indiana since it is a top producer of hardwood and has access to several markets. The State has been very supportive of primary and secondary manufacturers’ achievement of Chain of Custody certification, which may facilitate access to markets for FSC-certified products.

According to the 2010 Census Quickfacts webpage (<http://quickfacts.census.gov/qfd/states/18000.html>; accessed December 2, 2011), Indiana has experienced a 6.6% increase in population from 2000 to 2010 (6,483,802). 14.4% of the population lives below the poverty line. Per capita money income in past 12 months (2009 dollars) 2005-2009 was \$24,044 for the State (compared to \$27,041 for the entire USA). Median household income, 2009, was \$45,427 (compared to \$50,221 for the entire USA). US Census methodologies lump forestry in the “Forestry, Fishing, Hunting, and Agricultural support,” thus it is not possible to use this data set to compare annual employment levels in the forestry sector (<http://www.census.gov/econ/cbp/>).

Many of the American Indian tribes that were active in Indiana were either decimated through disease or warfare during the period of initial European settlement or forced to relocate to reservations in Oklahoma. According to the Census Quickfacts cited above, approximately 1.6% of Indiana's population is American Indian/ Alaskan Native. DOF has contacted recognized and unrecognized tribes active in Indiana and Oklahoma. All identified prehistoric archaeological sites are protected and DOF has extended the invitation to tribes to collaborate on the management of such sites.

2.1.4 Land use, Ownership, and Land Tenure

As described in the HCP (draft v. Oct 2006):

"The state forests were initially created to restore eroded, worn-out land when small, subsistence farms were abandoned early in the century. Early state forest management focused on reforesting eroded areas, creating wildlife habitat, demonstrating good forest land management, providing public recreation, and conserving forest resources. Today, the state forests are managed for multiple uses and benefits (IDNR Strategic Plan 2005). Income from timber sales on state forest lands represents a small but growing portion of annual revenues for the state of Indiana. From 2003 to 2004, nearly 2500 acres of forest were harvested with over 3.4 million board feet sold, generating revenue of \$897,313 (IDNR Strategic Plan 2005). Fifteen percent of state forest timber sale revenue is returned to the counties in which the harvest occurred. The DOF Strategic Plan 2005-2007 proposes to increase revenue from state forest timber sales to \$3 – 5 million annually by increasing harvest on state forest lands to 10 – 17 million board feet (IDNR Strategic Plan 2005). The average annual growth on state forests is 24,788,950 board feet, so this will represent an annual harvest of about 40 – 69 percent of annual growth. Seventeen percent of the revenue from the increased timber sales will go into a cost-share assistance program to enhance the management of private forest lands, 15 percent will be used for payments to the counties, and the remaining 68 percent will be used for reinvestment, research, acquisition of land and improvement of state forests and preserves (IDNR Strategic Plan 2005).

Indiana's state forests and recreation areas provide a variety of recreational opportunities for the public. Most recreational activities, such as hunting, fishing, primitive camping, backpacking, and edibles gathering, are dispersed and require minimal development. Modern facilities are necessary for swimming, boating, camping, and nature education on several state recreation areas, but are held to the least developed level possible. The annual number of visitors to DOF properties is estimated to be between 1 and 2 million (B. Hubbard, pers. comm. 2006).

There are 526 miles of hiking, mountain bike, and horse trails on DOF lands and campgrounds are available on 11 DOF-managed properties (Table 3-13; B. Hubbard pers. comm. 2005). Approximately 1840 recreation sites (campsites, picnic areas, boat ramps, parking units, etc.) are found on DOF properties (Table 3-13). Between 6000 and 7000 acres of DOF properties (about 4%) are identified as developed recreation areas (B. Hubbard, pers. comm. 2006).

Recreational activities involving wildlife are major attractions to Indiana state forests. Hunting, fishing, and trapping are permitted on Indiana state forests in designated areas and under the statutes and regulations developed for these activities (IDNR Specialist Report 2005). Hunting of whitetail deer, squirrel, fox, raccoon, rabbit, ruffed grouse, turkey, quail, woodcock, and dove is allowed within designated areas and seasons. A total of 125,526 deer was legally harvested in the state of Indiana during 2005 (IDNR 2006). Total deer harvest has increased annually since 2000 (IDNR 2006)."

Other activities on the FMU include organized recreation, hunting/ gathering, and fundraisers that require permits or licenses. There are also rights-of-way established for roads, power lines, gas pipelines, and other installations that require permanent rights-of-way or long-term lease agreements. There are some areas of the FMU over which third parties have the mineral rights. DOF also has mineral rights in some locations. Currently, there is no mining activity on the FMU.

2.2 Forest Management Plan

Box 2.2.1.1. – Forest Management Plan

Management objectives:

As described in the Properties Strategic Plan (1997), The objectives of the forest management operations are:

- *Indiana state forests are managed for all forest resources in an integrated and sustainable fashion that allows for both the long term integrity of the ecosystem and provides for timber production and watershed protection as well as consumptive and nonconsumptive use by the public. It is recognized that changing public demands, evolving resource management concepts, and a dynamic forest will require periodic adjustments in land use allocations and forest benefits.*
- *The philosophy of management of landholdings on state forests is to consolidate current landholdings where feasible to develop a more contiguous ownership pattern, to identify and monument all boundary lines, to resolve all encroachments in a fair manner and to provide public access to landholdings.*
- *The state forests will continue to provide consumptive and nonconsumptive outdoor recreational opportunities. Recreational development will not take precedence over natural resource conservation and protection, and will continue to be structured on the natural rather than the "built" environment.*
- *The state forests will strive to locate, evaluate, preserve, and where appropriate interpret and manage those natural resources which are deemed archaeologically, historically or ecologically significant. State forests will be surveyed for these resources in cooperation with the Division of Nature Preserves and the Division of Historic Preservation and Archaeology.*
- *All information and education programming will be directed toward providing the public with convenient access to accurate information on recreational opportunities and resource stewardship. Information and education programming will be directed at both on-property and off-property audiences.*
- *Fish and wildlife management will be an active and integral part of the overall state forest management direction. Habitat conservation and vegetation management will continue to*

be the major fish and wildlife management tools employed. Fish and wildlife management plans will be developed in cooperation with the Division of Fish and Wildlife for each state forest.

- *Develop an organization that is effectively organized and allows for efficient and effective use of budget, equipment and personnel resources between and among properties and within the Division.”*

Forest Composition and Rationale for Species Selection:

The HCP (draft v. Oct 2006) states:

“Oak-hickory and mixed-hardwoods are the most common habitat types on Indiana state forests, comprising nearly 80 percent of SWI plots. The relative proportions of cover types on all state forests are mixed hardwoods (42.8 %), oak-hickory (37.1 %), pine (7.0 %), non-forested (4.5 %), bottomland hardwoods (4.2 %), beech-maple (4.0 %), undefined (0.5 %), and tree plantation (0.1 %).”

General Description of Land Management System(s):

The DoF implements multiple silvicultural systems; the choice of silvicultural system is based on the management objectives for each state forest and objectives for individual forest tracts. The following silvicultural prescriptions are employed on DoF lands, as stated in the HCP (draft v. Oct 2006):

“Hardwood and Pine Group Selection Openings < 10 acres each

Prescriptions for group selection openings remove a small number of trees to create space for regeneration, establishment, and development of intermediate and shade intolerant tree species. To limit impacts to visual aesthetics, these openings are usually not larger than 5 acres, but can be up to 10 acres. There is no set rotation for group selection openings. Some tracts may receive multiple group selection openings over time; others may receive none.

The need to conduct a group selection opening is based on the composition or condition of existing trees, goals for the tract, and the end result of creating the opening. Group selection is implemented on tracts that are damaged (defective or decaying), have poor vigor, or where regeneration success is less than desirable or not possible without allowing for more sunlight to reach the forest floor.

Hardwood Singletree Improvement

Hardwood singletree improvement harvests are a type of uneven-aged harvesting done in conjunction with group selection openings. Singletree improvement harvests are implemented in areas within an uneven-aged stand that are between created openings. Individual trees are selected and removed throughout the stand approximately every 15 to 25 years. The treatments are conducted to modify or guide the development of the existing crop of trees, but not to replace it with a new one. These activities include selective removal of some vegetation to allow the expansion of remaining tree crowns and root systems. The decision to remove a singletree

under this method is based on in-field evaluation of that individual stem for condition, vigor, species composition, and impact to neighboring existing trees.

Pine Clearcuts

All silvicultural pine clearcuts are even-aged stand regeneration actions. All the pines in the stand are cut and removed at the same time, and replaced with a new stand of small seedling/sapling hardwood trees on the entire area. Almost all existing pines on DoF lands are nonnative and the result of plantation plantings established on abandoned farmlands to stabilize and improve soils. Pine clearcuts are implemented to replace nonnative pines with native hardwoods. This method mimics hardwood regeneration that naturally occurs when openings are created.

Pine Thinning

Pine thinning is the removal of pines from pine stands or a partial cutting in even-aged aggregations of trees. Tree removal is done to improve future growth and vigor by regulating stand density. Thinning methods are of two different types: commercial thinning where some or all of the wood harvested is put to use, and thinning without utilization of wood harvested. The latter scenario is considered a pre-commercial thinning and can be equated to removal of undesirable trees. Most of the pine thinning on DoF properties is conducted as commercial thinning and is usually done only once during the life of the pine stand. A typical pine thinning prescription is 0.5 to 20 acres and approximately less than 50 percent of the trees present are removed from an even-aged stand. Without conducting pine thinning harvest production on pine stands would eventually be lost to suppression of trees. Trees that are not harvested from overcrowded pine stands would die from lack of light and nutrients and their fiber value would be lost.

Hardwood Shelterwood

Shelterwood harvests are a method of even-aged regeneration. These harvests remove almost all trees in an existing stand, except the largest and most vigorous hardwood trees. Typically retained hardwood trees are 16 to 28" dbh. Harvested areas are then regenerated with a new stand of young hardwood seedling trees. The resulting natural regeneration is a mixture of hardwood species; as increasing amounts of sunlight reach the forest floor this allows oaks and hickories to compete with more shade tolerant species, and thus oaks and hickories will make up a large proportion of the regenerated stand. Harvesting the existing stand of trees is done in a series of cuttings to release the new seedling trees started under the old stand. The essential characteristic of the shelterwood method is that the new stand is established (naturally or artificially) before the last of the old hardwoods is removed. The final overstory removal in shelterwood harvests usually takes place within 10 years of the initial cutting.

Hardwood Clearcuts > 10 acres each

All silvicultural hardwood clearcuts are even-aged stand replacement actions on areas 10 acres or more in size. Usually clearcuts on DoF properties are between 10 and 25 acres. On rare occasion, larger areas may require a clearcut to manage the results of unforeseen events such as damage from wildfire, insects, storms, or disease. All trees in the stand are cut at the same time

and replaced with a new stand of small hardwood trees on the entire area. Hardwood clearcuts on DoF lands are most often used in areas where an entire stand has been damaged by wildfire or storms or where, as a result of past activities, the stand composition is dominated by less desirable trees, exotics, or invasive plant species. The use of clearcut harvests provides the best opportunity for the establishment of new stands dominated by oaks and hickories as compared to uneven-aged harvests. Clearcuts also create openings for large continuous areas of early successional habitat.”

Silvicultural system(s)	Area under type of management (ha or ac)
Even-aged management	
Clearcut (clearcut size range 11-35 Acres)	73.6 Acres
Shelterwood	0.0 Acres
Other (e.g., coppice, variable retention, seed-tree)	0.0 Acres
Uneven-aged management	
Individual tree selection	5,165.0 Acres
Group selection	403.5 Acres
Other Salvage	56.0 Acres
Non-timber Forest Products (NTFPs)	
Silvo-pastoral production systems	
Agro-forestry production systems	
<input type="checkbox"/> Other Conservation and protection ⁵	
<input type="checkbox"/> Other Recreation	
Harvest Methods and Equipment used:	
Estimate of maximum sustainable yield for main commercial species (including NTFPs):	
Explanation of the assumptions and reference to the data source upon which estimates are based:	
Explanation of the management structures:	
The Indiana state forest system is made up of 12 properties ranging in size from 350 acres to 25,000 acres, totaling 156,651 acres. The DoF is responsible for managing the state forests, and does so using a combination of property level managers and field staff, central office administrators/specialists, and contractors. Each property is managed as its own independent unit.	

2.3 Monitoring System

⁵ For all bamboo management systems under the scope of the certificate, see FSC-ADV-30-502 for guidance.

Box 2.3.1.1 – Monitoring procedures

Growth and Yield

DOF has periodic system-wide inventory and Continuous Forest Inventory (CFI) system, which together address species, volumes, stocking, regeneration, forest composition and structure, and timber quality. DOF has a strong program for monitoring timber theft and has recorded significant events, such as storm damage, in updates to management guides and during the HCV review process.

Forest dynamics and changes in composition of flora and fauna

Permits are not allowed for ginseng harvesting on State Forests. The Division of Nature Preserves is responsible for regulating the harvest and trade of ginseng in the State. Sales records are kept for each timber sale that allow for volume analysis at the district and whole-state forest system level. Current harvest data shows that harvest does not exceed growth.

Indiana DOF properties section wildlife completes annual monitoring snag and cavity trees, spring resident bird populations, summer breeding bird populations, forest amphibians, and deer impacts from browsing.

- Department of fisheries conducts annual creel census.
- The State of Indiana has a breeding bird atlas.
- Periodic surveys are completed for bats in caves.
- Periodic surveys are completed for the wood rat.
- Ruffed Grouse drumming surveys are completed.
- Nature Preserves completes annual surveys on preserves.
- DOF completes monitoring of BMP's (see "1996-2008 Forestry Best Management Practices Monitoring Results")
- T and E species that were previously undetected in other surveys are reported to the Natural Heritage Inventory Database.

Monitoring of HCVs occurs as part of site inspections and, if near an active harvest, as part of harvest monitoring. Should HCVs undergo active management, such as prescribed fire, DOF monitors the response (e.g., regeneration).

When management guides are updated, the invasive species section must also be updated. Informal monitoring also occurs and since most field staff are licensed applicators, they may treat trouble spots quickly.

Environmental Impacts

Evidence of monitoring includes the following reports and records:

- Timber sale inspection reports
- Annual BMP monitoring report results
- Contract monitoring (TSI forms)

More fundamental to meeting this monitoring, DOF inspects active timber sales and conducts post-

harvest reviews to ensure that objectives and BMPs are being met.

DOF monitors road construction and maintenance by tracking how many miles are completed each year per forest employee. Informal inspections occur during and after timber harvests.

Social Impacts

See **CAR 2011.12**.

Strategic Plan and Environmental Assessments have stakeholder comments and responses recorded. No tribes have expressed interest in monitoring sites of cultural significance. Many sites are pre-historic, making it difficult to tell which tribal groups were present.

Costs, Productivity, and Efficiency

Costs of each arranging each timber sale are included in each site plan for later analysis. The budget office maintains information on all expenditures and income. DOF's upper management analyses budgets for individual projects and the department as a whole to assess productivity and efficiency.

2.4 Pesticide and other chemical use

Commercial name of pesticide/ herbicide	Active ingredient	Quantity applied annually (kg or lbs)	Size of area treated annually (ha or ac)	Reason for use
Navigate	2,4-D	378 lbs	4 Acres	Treatment of yellow floating heart
Opensight	aminopyralid, metsulfuron methyl	9.45 oz	85 Acres	Treatment of multiflora rose
Plateau	ammonium salt of imazapic	22 oz	2 Acres	Treatment of Japanese stilt grass
Cutrine Plus, Cutrine Ultra	Copper	72.5 gal	32.8 Acres	Treatment of aquatic algae
Cutrine Plus (granular)/ Copper sulfate	Copper	140 lbs	6 Acres	Treatment of aquatic algae
Nautique	Copper Carbonate	232.5 gal	26.7 Acres	Treatment of aquatic weeds
Cide-Kick II	D,LIMONENE	6 gal, 16 oz	10.8 Acres	Treatment of aquatic weeds
Aquathol K	Endothall	27.5 gallons	6.3 Acres	Treatment of aquatic weeds

Aquapro, Credit, Glyphomate 41, Roundup, Rodeo, Buccaneer plus, Roundup Pro, Razor, Glystar, Buccaneer	glyphosate	135.5 gallons	1,402.95 Acres	Treatment of invasive species; Weed control in parking areas; Aquatic weed control; Timber stand improvement: crop tree release, grape vine control
Stalker	imazapyr	0.6 gal	28 Acres	Treatment of ailanthus
Tordon	Picloram	1.25 gal	6 Acres	Treatment of woody stems and grapevines
Pathway, Tordon RTU	picloram, 2,4-D	17.225 gal	412.65 Acres	Used for cut stump application in TSI; treatment invasive species; Used for timber stand improvement grape vine control & thinning
Tahoe, Garlon, Garlon 4, Pathfinder, Element 3A, Element 4; Garlon 4 ultra	triclopyr	4	400 Acres	TSI, brush control
Crossbow	triclopyr, 2,4-D	1 gallon	8 acres	Treatment of ailanthus
Poast	sethoxydim	18 gal	200 acres	Treatment of Japanese stilt grass
See FSC-GUI-30-001 V2-0 for a list of prohibited ingredients and other information on chemical use in FSC-certified operations.				

3.0 Certification Evaluation Process

3.1 Evaluation Dates and Activities

3.1.1 – Evaluation Itinerary and Activities

25 – Oct – 2011	
FMU/Location/ sites visited*	Activities/ notes
Opening meeting	Interviews with DOF staff and supporting DNR staff
Auditors: Kyle Meister, JoAnn Hanowski, Norman Boatwright	
Stop 1: Active Timber Sale 6361102	This was an active sale with access through private property. The owner/operator and one sawyer were interviewed. The management objective for this tract was to improve the overall quality of the timber with a selective harvest. Trees to be harvested were marked. A group selection opening was created on the north slope of the site to meet objectives for this type of habitat on the forest. Water bars were correctly constructed and applied. Some trees were girdled to provide future snags (shagbark hickory) for Indiana Bat habitat. A small man-made watering hole was located on the timber sale. Appropriate riparian BMPs were applied.
26 – Oct – 2011	
FMU/Location/ sites visited*	Activities/ notes
Auditors: Kyle Meister and JoAnn Hanowski at Ferdinand-Pike State Forest	
Stop 1: Phragmites control on Fossil Lake	There was a small area of phragmites on the edge of Fossil Lake that was treated with an herbicide. Treatment was successful. We also examined the chemical storage area on the Forest and drove by Ferdinand State Forest Lake where an algicide treatment had been administered by Fisheries. Records of chemical applications were maintained near chemical storage.
Stop 2: Oak shelterwood. Comp 2 Tract 5	This was a site that had mostly dead black oak (about 130 years old) that was harvested in the winter of 2008-09. Their management had some aesthetic concerns over the “look” of the shelterwood, primarily because it is adjacent to a busy road that leads to the campground. Because the most common timber harvest in the forests is single tree selection, this shelterwood has been received poorly by some members of the public because the harvest is highly visible. DOF added educational signs to the site to explain the management objectives and the desired future conditions. The understory was planted with white, red and black oak and a chemical TSI had occurred

	to control undesirable and competing species.
Stop 3: Proposed HCVF Comp 2 Tract 2	A portion of this tract was nominated as an HCVF by a local resident. The tract was visited by Roger Hedge (Nature Preserves), Doug Brown, Carl Hauser and the nominee. Nature Reserves recommended that the site be dedicated as a nature preserve due to its quality and rarity in the region. No decision has been made on this designation. Guidance provided in the latest version of the FSC-US standard and HCV documents may contain helpful information to review in HCV classification.
Stop 4: Bottomland Forest, Pike State Forest	This area in an oxbow was about 10 acres in size. The stand contained a mix of sycamore, sweetgum and silver maple. A partial overstory removal was completed to open the canopy and several species of oak and walnut were planted. There was discussion on the natural species composition of the site and micro-site planting locations of the seedlings.
Stop 5: Horse Trail, Pike State Forest	This well used horse trail had experienced some erosion near a wet area and a small water crossing. The trail was rehabilitated by DOF staff and an inspection by the auditors confirmed that soil and water resources are being protected on this trail.
Stop 6: TSI burn	An understory burn was completed on this tract to release oak. The burn was relatively effective in eliminating competing species. A chemical control was also applied to treat invasive species.
Stop 7: Pine Salvage	This pine site experienced straight line winds which toppled about 8-10 acres. A salvage harvest will be completed along with a harvest in the adjacent hardwood area (total of 23.5 acres). Because it will be difficult to do TSI in the blow down area, that portion of the harvest area will be allowed to serve as an opening and regenerate to native hardwoods.
Stop 8: Cup Creek/ Ellis Estate	The State has ownership of this reclaimed mine site and allows Quail Unlimited to utilize and manage this site. They have put in some food plots and host annual youth hunts on the property. As there is little or no natural reproduction of quail, it is strictly a put-and-take situation.
Auditor: Norman Boatwright did review of management guides, and timber inventory and monitoring systems at Martin State Forest.	
27 – Oct – 2011	
FMU/Location/ sites visited*	Activities/ notes
Auditors: Kyle Meister and JoAnn Hanowski at Jackson-Washington State Forest	
Stop 1: Compartment 3 tract 6	This was an active sale of a 39 acre mixed hardwood site. Canopy gaps are being created and single tree selection conducted to improve the overall vigor of the stand. TSI is recommended within a year post-

	harvest to complete regeneration openings, to deaden cull trees and to release future crop trees. Indiana bat snag and large tree guidelines were discussed and will be maintained or created on the site. The harvest may benefit the timber rattlesnake. There was a discussion on stream classification and the reasons for separating the main harvest from post-harvest TSI. Interview with employee of logging contractor. Contractor's employees wore proper safety equipment and discussed their training requirements.
Stop 2: Compartment 4 Tract 17	This mixed hardwood stand was marked for harvest. The goal is to harvest single trees and trees in small gaps to increase the vigor of the stand. TSI will be conducted post-harvest to release small diameter class trees for future Indiana Bat habitat and create snags beneficial for the bat. Tree species native to the site will be maintained. A Nature Preserve is located in the tract and is under the supervision of DNR Division of Nature Preserves.
Stop 3: Spurgeon Hollow RSA	This RSA represents a mesic flood plain forest. This type of habitat was identified as missing in the gap analysis performed by DNR. A harvest was performed prior to the site being identified as an RSA. The harvest included the removal of pine, which was not native to this area. Goal is to maintain/ regenerate native species to this type of site including sugar maple, red oak and poplar.
Auditor: Norman Boatwright: Field visit to Selmier State Forest to inspect completed timber sales, regeneration, and completion of BMPs.	
Auditors: Kyle Meister, JoAnn Hanowski, Norman Boatwright	
District office	Review of management plans and records
28 – Oct – 2011	
FMU/Location/ sites visited*	Activities/ notes
Auditors: Kyle Meister, JoAnn Hanowski, Norman Boatwright	
Jackson-Washington State Forest	Review of FSC and SFI findings and auditor deliberations
	Closing meeting: Issuance and review of preliminary findings

3.1.2 – Total time spent on evaluation*

A. Number of days spent on-site assessing the applicant:	4
B. Number of auditors participating in on-site evaluation:	3
C. Additional days spent on preparation, stakeholder consultation, and post-site follow-up:	2
D. Total number of person days used in evaluation:	14
(Line D = (Total number of days in Line A x Total number of auditors from Line B) + additional days from Line C.	

3.1.3 – Evaluation Team

Auditor Name:	Kyle Meister	Auditor role:	Lead FSC Auditor; SFI auditor
<p>Qualifications: Mr. Meister is a Certification Forester with Scientific Certification Systems. He has been with SCS for nearly three years and has conducted FSC pre-assessments, evaluations, and surveillance audits in Brazil, Panama, Mexico, Indonesia, India, and all major forest producing regions of the United States. He holds a B.S. in Natural Resource Ecology and Management and a B.A. in Spanish from the University of Michigan; and a Master of Forestry from the Yale School of Forestry and Environmental Studies. Mr. Meister has experience as an environmental educator and natural resource consultant in the U.S., Mexico, Ecuador, Costa Rica, Colombia, and Brazil. He is responsible for reviewing all of SCS' forest management reports from Latin America. He is a member of the Forest Guild, Society of American Foresters, and the Cascade Green Building Council.</p>			
Auditor Name:	Norman Boatwright	Auditor role:	FSC Auditor; Lead SFI Auditor
<p>Qualifications: Mr. Boatwright currently manages the Environmental Services Division of Milliken Forestry Services that handles typical forestry consulting, SFI Audits, Phase I Environmental Site Assessments, Forest Soil Mapping, Wetland Delineation, and other Biological Services. He has over twenty-eight years experience in intensive forest management, seventeen years experience in environmental services and seven years experience in SFI auditing. He has conducted Phase I Assessments on over two hundred and fifty projects covering 2,000,000 acres, ESA and Endangered Species Assessment on timberland across the South, and managed soil mapping projects over 1.3 million acres. From 1985-1999, he was Division Manager at Canal Forest Resources, Inc. and was responsible for all forest management activities on about 90,000 acres of timberland in eastern South Carolina. Duties included budgeting and implementing land and timber sales, site preparation, planting, best management practices, road construction, etc. Norman is a Qualified Lead Auditor under the NSF-ISR SFI Program with extensive experience auditing procurement and land management organizations.</p>			
Auditor Name:	JoAnn Hanowski	Auditor role:	FSC/SFI assistant auditor; Wildlife expert
<p>Qualifications: JoAnn M. Hanowski is a retired senior research fellow from the University of Minnesota Duluth's Natural Resources Research Institute. She has considerable expertise evaluating the effects of forest management on wildlife habitat, the response of birds to various forest management practices in stream and seasonal pond buffers, and the development of indicators of forest and water health and sustainability in Minnesota and across the Great Lakes. She was a member of the forest bird technical team for the original GEIS, participated on the wildlife technical team that wrote forest management guidelines for Minnesota, and was a member of the riparian science technical committee that investigated the effectiveness of Minnesota's current guidelines for forest management in riparian systems. She has published 64 peer-reviewed journal articles and over 75 reports in her 21 year tenure with the University of Minnesota. In 2005 JoAnn participated in the largest forest certification project ever conducted in the United States, the joint FSC/SFI certification of Minnesota's state lands. She has also contributed regional ecological expertise to FSC and SFI certification in Wisconsin and Massachusetts.</p>			

3.2 Evaluation of Management System*

3.2.1 – Methodology and strategies employed

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

3.2.2 – Pre-evaluation*

<input checked="" type="checkbox"/> A pre-evaluation of the FME <i>was not</i> required by FSC norms.
<input type="checkbox"/> A pre-evaluation of the FME was conducted as required by and in accordance to FSC norms.

3.3 Stakeholder Consultation Process*

In accordance with SCS protocols, consultations with key stakeholders were an integral component of the evaluation process. Consultation took place prior to, concurrent with, and following the field evaluation. The following were distinct purposes to the consultations:

1. To solicit input from affected parties as to the strengths and weaknesses of the FME's management, relative to the standard, and the nature of the interaction between the company and the surrounding communities.
2. To solicit input on whether the forest management operation has consulted with stakeholders regarding identifying any high conservation value forests (HCVFs).

Principal stakeholder groups relevant to this evaluation were identified based upon lists of stakeholders from the FME, and additional stakeholder contacts from other sources (e.g., chair of the regional FSC working group). The following types of groups and individuals were determined to be principal stakeholders:

Box 3.3.1 – Stakeholder Groups consulted during evaluation for certification	
FME Management and staff	Pertinent Tribal members and/or representatives

Consulting foresters	Members of the FSC National Initiative
Contractors	Members of the regional FSC working group
Lease holders	FSC International
Adjacent property owners	Local and regionally-based environmental organizations and conservationists
Local and regionally-based social interest and civic organizations	Forest industry groups and organizations
Purchasers of logs harvested on FME forestlands	Local, state, and federal regulatory agency personnel
User groups, such as hikers, ATV users, and others	Other relevant groups

The stakeholder consultation activities were organized to give participants the opportunity to provide comments according to general categories of interest based on the three FSC chambers. The table below summarizes the major comments received from stakeholders and the assessment team’s response. Where a stakeholder comment has triggered a subsequent investigation during the evaluation, the corresponding follow-up action and conclusions from SCS are noted below.

Stakeholder comments have been organized under Economic, Social, and Environmental categories. Within those categories, topics have been grouped. As such, many comments within each category may be from the same stakeholder.

Box 3.3.2 – Summary of Stakeholder Comments and Responses from the Team Where Applicable	
Stakeholder comments	SCS Response
Economic concerns	
<p>Hardwood Ecosystem Experiment</p> <p>The Hardwood Ecosystem Experiment (HEE) had some baseline conditions evaluated. When evaluating the Land Expectation Value (LEV), the lowest LEV is for even-aged management. The highest LEV is for single tree selection because you have a steadier stream of timber. Group selection’s LEV is close to that of single-tree selection (largest opening is less than 2 ha; 4.94 acres). We looked at these results on three silvicultural treatments and then did the same thing for the whole DOF.</p>	<p>This stakeholder discussed socioeconomic analyses as part of the background on how social values are determined in the Hardwood Ecosystem Experiment (http://www.heeforeststudy.org/). The LEV results are not surprising given the more steady flow of timber over time. The results may not directly account for biological limitations and responses, however, in regards to a given tree species’ regeneration requirements.</p> <p>Since DOF is still monitoring the results of the HEE over time to inform its long-term management objectives and policies, including its silvicultural systems, SCS concludes that the stakeholder’s comments support DOF’s monitoring system. No non-conformance is warranted.</p>

<p>DOF budget and performance Given the way that the economy is going, INDNR is doing a good balance of generating income and moving the organization forward.</p>	<p>Duly noted. No non-conformance is warranted.</p>
<p>DOF budget and performance I have been impressed with how IN DNR has been able to meet program requirements without seeming to have an effect on their budget. It has been a very transparent process. There have been very few programs or communications that have gone by the wayside.</p>	
<p>DOF budget and performance DOF has had budget cut severely, and has lost good people to early retirement. The problem is to replace those folks and bring them up to speed. They are managing as best as they can.</p> <p>They have had cuts and limited staffing at some properties and offices. Is impressed with how DOF continues to do what they do with the limited resources.</p>	<p>The State of Indiana OMB website has budget information on the DOF.</p> <p>The DOF biannual budget consists of two main categories: 1) general funds (that come from general taxes); and 2) dedicated funds (income generate by Division of Forestry from timber harvests, permits, passes, etc.).</p> <p>General funds could be cut, but so far have not been.</p> <p>The dedicated funds go into DOF's operating budget and a proportion must be spent in some specified ways. For example, some must be dedicated to preventative maintenance and capital projects. Additionally, 15% of timber sale money goes to counties to fund fire departments (50% of the funds received) and county projects. The dedicated fund experienced a decline from FY09 to FY10 due to the elimination of the mill tax from DOF's budget in property tax reform. In the past, up to 80% of the dedicated fund came from the 1 mill property taxes.</p> <p>As a proportion of the operating budget, the general fund made up 30% and the dedicated fund made 70% in FY09. The projection for FY12 is 44% of the operating budget coming from the general</p>

	<p>fund and 56% from the dedicated fund. The general fund's proportion of the operating budget has increased each year since FY09. DOF's budget has run a positive balance since FY09 and is projected to run another in FY12. However, the balance has declined each year since FY09 (but is still positive).</p> <p>While the overall budget has declined since FY09, DOF maintains a projected 3% reserve in FY12's operating budget. Given the positive balances and stakeholder comments on DOF being able to implement core management activities required to fulfill this standard despite the overall reductions in budgets, SCS concludes that no nonconformance is warranted.</p>
<p>DOF budget and performance; sustainable harvest rate</p> <p>The governor has made the State Forests into political objects. There is a push to develop revenue by any means necessary, and there are folks who feel that the rate at which forests have been cut is unsustainable.</p>	<p>See comment above on DOF's budget. The dedicated fund can only be used for DOF's obligations and projects. The dedicated fund consists of income generated from timber harvests, permits, passes, etc. (i.e., goods or services for which DOF receives payment). Overall, a greater proportion of DOF's budget has been coming from the general fund over time, which does not come from timber harvest revenue. In regards to the timber harvest rate, DOF remains well within its calculated annual allowable harvest rate (14 MMBF). FSC-US requires that the average annual allowable harvest over rolling periods of no more than 10 years not exceed the calculated annual allowable harvest. DOF has set its rolling period at 4 years, which demonstrates exemplary conformance to the FSC-US standard as it is setting a higher bar for itself. In fact, for FY08-09 and FY09-10, the total volume harvested was 12.1 MMBF and 9.8 MMBF, respectively. Both are below the allowable harvest rate. While in 2007 the annual allowable harvest increased four times the previously established rate for period 1994-2003, DOF's allowable harvest rate amounts to less than 60% of growth per year, which means that the volume of standing timber</p>

	will continue to increase. No non-conformance is warranted.
Social concerns	
<p>DOF education & outreach</p> <p>Harvesting has increased on DOF and they are living up to their own standards in terms of what they teach people. They have been teaching basic TSI and harvesting techniques to the general public.</p> <p>Emerald Ash Borer (EAB) education has been fairly extensive (lots of literature and newsletters) and it has guidance on silviculture and timber sales in regards to ash.</p> <p>I would love to see the good work continue as public opinion towards forest management is changing. About 80% of what I have learned about forest management I have learned from DNR staff. The instructors from DOF have always been good with landowners.</p>	<p>DOF conducts outreach to private landowners on forest management for timber production and wildlife, which was confirmed via educational brochures, records of trainings given, and comments from other stakeholders during the Indiana Classified Forests assessment (SCS-FM/COC-00123N). No non-conformance is warranted.</p>
<p>DOF education & outreach</p> <p>The Forest Stewardship Committee is focused on setting up a system in Indiana to evaluate impact of forest education programs, as there are lots of groups that do education programs for forest landowners – we felt that as a group, what effect are all of these efforts having? Put together an evaluation for each program to gather information on what kinds of problems and issues people have and to see what kinds of differences the programs have made on stewardship and awareness, etc. Still in early phases of this process to come up with a way to get all programs on same page and set up a clearinghouse for information. DOF has had positive response to this and is sharing information on its programs in the demonstration forest (HEE). This will give them a better understanding of their audience and program needs.</p> <p>Really view that Forest Stewardship Committee as a positive experience. It has been good to get</p>	<p>This is a good example of DOF’s cooperation with another organization on forest education and evaluation/ monitoring of social impacts. DOF is subject to new indicators in the FSC-US that requires it to keep a summary of its social impacts. See Minor CAR for indicator 4.4.a.</p>

<p>information and for all of us to share information on what is going in their neck of the woods. The other thing is that the HEE would not have happened without DOF's leadership. In terms of the complexity of getting this project started and funding, it is a big deal. Information learned there really informs the rest of DOF's lands. The project informs both industrial and non-industrial landowners.</p>	
<p>Indigenous Peoples There are not very many Native American tracts in the State; one tract in the north that may be in Classified Forest group.</p>	<p>Duly noted. SCS' stakeholder outreach activities yielded no comments from Native American groups or representatives. DOF has made contact with federally recognized and non-recognized groups. Additionally, it protects archaeological sites, including prehistoric ones. No non-conformance is warranted.</p>
<p>Forest certification The impact of FSC certification has been positive- the package shows that there is 3rd party to support what DOF is doing. Concern for the future is if all of the efforts on forest management and certification will continue.</p>	<p>Duly noted. No non-conformance is warranted.</p>
<p>Forest certification Our organization has been very pleased that DOF has achieved certification; they are going above and beyond what any other public land agency in Indiana is doing to fulfill their mission.</p>	
<p>Stakeholder engagement (general; slash management) and on High Conservation Value Forests Think that it depends on your viewpoint as to whether or not that DOF cooperates with stakeholders. We have lots of friends who live next to Yellowwood and one operation was adjacent to friend's property. The neighbor was concerned about leaving slash in ravines. Biggest comments that we hear is about as designated backcountry area of Yellowwood and the nearby forest. People thought that it would be managed as untouched forest. Seems like people in management in DOF are dealing with forests as political objects and do not necessarily</p>	<p>In regards to slash management, woody debris is a natural component of forested riparian areas, including intermittent streams. Placement of slash in a ravine itself does not necessarily mean that slash is located within the Riparian Management Zone (RMZ). Per DOF's BMPs, the width of an RMZ for an intermittent stream can range from 25' – 165' depending on the slope (http://www.in.gov/dnr/forestry/4588.htm). According to DOF's RMZ guidelines, slash and tops can be used in small intermittent streams where they do not serve as a flood impediment or can protect the forest floor to allow</p>

appease people who are in it for a recreational experience, particularly people who feel that older growth forests are valuable. There is public concern over Indiana bats, RTE species, and wood warblers. There is also concern over the disruption of the forest floor and communities that exist in duff and mineral soil.

sediment to be filtered out before reaching the watercourse

(<http://www.in.gov/dnr/forestry/2865.htm>).

The audit team observed one unregulated, small intermittent stream in which one tree top had been left after felling (Washington State Forest, Compartment 3, Tract 6). In this case, the slope of the stream was between 0-5% with the approach to the stream being steeper than that. The tree top was being used to minimize sediment delivery to the intermittent stream as it was blocking a temporary skid trail crossing. It was also making the harvest less visible from the roadside, thus discouraging intrusion. The slash was less than 4' in height and was small diameter, which means that decay should be relatively rapid (less than 10 years). Since the harvest was single-tree selection, did not reduce canopy cover below 50% and was not over the entire watershed, any increased stream flow due to the harvesting is likely to be small. DOF's current RMZ guidelines as currently written could be used to support or contradict this finding, however. See **OBS for 6.5.a and 6.5.e.1.**

According to its summary document on HCVFs, DOF received one comment regarding the Backcountry area that was in opposition to its designation ("The proposal was posted on the Division of Forestry website from October 6, 2008 through December 31, 2009. No comments were received in favor of this designation.")

One comment was received in opposition to designation as a HCVF. A smaller section of the Backcountry area (320 acres) was designated as HCVF (Low Gap Nature Preserve). DOF has prepared a document on wildlife management

in the Backcountry that cites several studies from peer-reviewed journals that demonstrate the compatibility of harvesting with wildlife management, including the Cerulean warbler. Typical DOF forest operations use cable or grapple skidders to harvest. Some terrains are more appropriate for cable skidders, which remain on designated skid trails. This reduces impacts to duff and mineral soil over the whole harvest site. No non-conformance is warranted related to this issue, but see the **CARs and OBSs related to Principle 9 (HCVF) that deal with updates to the FSC-US standard.**

DOF manages the State Forests for multiple uses, including timber production, recreation (e.g., hiking, camping, horse trails, hunting), wildlife management (game and non-game species), research, and protected areas. Given the broad spectrum of user groups and their demands, conflict over resource management objectives occurs. The SCS audit team observed legal horse trails that crossed production forest and protected areas. DOF is involving the user group in trail maintenance and regularly checks the trail to ensure that watercourses are protected. On DOF, recreation is compatible with its timber production objectives because DOF takes into account both activities' impacts to the forest resource and to other management objectives. No non-conformance is warranted.

According to Primal Nature (<http://primalnature.org/>), to which Indiana DNR provided information on its protection of old growth forests, there are over 1,000 acres of old growth protected by the Indiana DNR's divisions. There are also other public lands near YW and MM that are being managed for

	<p>late seral conditions or old growth (see comments from other stakeholders). FSC-US defines Old Growth as: “(1) the oldest seral stage in which a plant community is capable of existing on a site, given the frequency of natural disturbance events, or (2) a very old example of a stand dominated by long-lived early- or mid-seral species The onset of old growth varies by forest community and region. Depending on the frequency and intensity of disturbances, and site conditions, old-growth forest will have different structures, species compositions, and age distributions, and functional capacities than younger forests.” Within this definition, there are two types of old growth. Type 1 old growth is defined as “three acres or more that have never been logged and that display old-growth characteristics.” Type 2 old growth is defined as “20 acres that have been logged, but which retain significant old-growth structure and functions.” The studies that have been done on old growth in Indiana, such as Spetich <i>et al</i> (1997)* used different patch sizes to classify old growth (4 ha or approximately 10 acres). See CAR for 6.3.a.1 and 6.3.a.3.</p> <p>* Martin Spetich, George Parker, and Eric Gustafson.1997. Spatial and temporal relationships of old-growth and secondary forests in Indiana. <i>Natural Areas Journal</i> 17:118-130.</p>
<p>Stakeholder engagement on Forest Management & Forest Succession and High Conservation Value Forests</p> <p>We do not have large and older growth trees that once existed in Indiana. DOF feels that 80 years old is an old as a tree needs to be. We have the potential to develop forests that once existed in Indiana. People from DOF were very condescending to people at a meeting in Bloomington. DOF said that people said that DOF lands would be multi-purpose, multi-use</p>	<p>The maximum age of a given tree species depends on site class, the species’ inherent biological traits, and other ecological factors such as disease and precipitation. Generally, when oak-hickory type forests approach 80-120 years depending on site class in Indiana, oaks and other shade intolerant and mid-tolerant species tend to die, and thus give way to more shade tolerant species. As many of the forests across the state are succeeding to the Maple-</p>

<p>forests. A local environmental NGO is touting a study that finds that most people in Indiana did not want to see cutting on state forests. DOF is touting study that people don't mind cutting on state forests. There are many people who feel that cutting in Yellowwood and Morgan-Monroe in the backcountry does not provide the experience that people would be looking for if it was cut. DOF from our viewpoint tends to pick and choose the stakeholders that they like to deal with and they are typically those who are in agreement with their viewpoint and management policies. There are a number of environmental groups in the state that run the gamut from cut nothing to cut it all.</p>	<p>Beech type, there is a limited window of opportunity to regenerate the oak-hickory type. Moreover, DOF's objective is to manage 10% of the state forest system for late seral conditions. Past disturbance regimes, mostly natural and human-set fires, are not as common now as they were pre-European settlement. These disturbance events would have maintained mixed species forests, favoring the oak-hickory type where fire return intervals were short. Many of the forests in Indiana have also been lost to agriculture. The State Forest system is multi-purpose and multiple-use. In fact, some recreational activities such as horse trails are not permitted on other public lands in Indiana, which increases the types of user groups on State Forests. Where there are multiple uses, there is bound to be conflict over resource objectives. DOF manages for camping, hunting, hiking, horse riding, timber production, gathering, special events, and protected areas. See other comments on YW and MM in previous responses to stakeholders. No non-conformance is warranted.</p> <p>DOF has not received reference for the study from the local environmental NGO. The methodology and results from DOF's study is located here: http://www.in.gov/dnr/forestry/5438.htm. 611 people responded to DOF's mail-in survey from a broad spectrum of stakeholder groups. No non-conformance is warranted.</p>
<p>Stakeholder engagement on High Conservation Value Forests My main concern is on the review of the HCV process, especially on the Morgan/ Monroe Backcountry. There should be a more rigorous and open process for HCV designation.</p>	<p>See comments above on comments received for Morgan/ Monroe (MM) Backcountry. See also other comments on HCVF designation in this section. The comment period for the MM Backcountry was open beyond the minimum required time. DOF presented evidence that</p>

	<p>the latest HCV review was open for nearly 90 days. One comment period actually was open for more than a year. A minimum of 30 days is required per policy. See also the CARs and OBSs received for Principle 9 (HCVF) that deal with updates to the FSC-US standard. Some of these findings address concerns about accessibility to the HCV process (see response to next comment).</p>
<p>Stakeholder engagement DOF could do a little better on stakeholder engagement. The management of public forests can create some public backlash. The issue is having openings, which some public does not like whether it is for even-aged or uneven-aged management (group selection).</p>	<p>Stakeholders interviewed during the recertification assessment expressed a broad range of opinions on DOF’s management. Overall, stakeholders appeared to be unaware of some of DOF’s policies even though DOF complies with FSC-US indicators related to stakeholder engagement and the provision of documents for public comment periods.</p>
<p>Stakeholder engagement DOF is trying to get input from different groups and we don’t think that there is favoritism. If DNR cuts and is guided by science, and a stakeholder group doesn’t get what they want, there can be a perception that DOF does not take their comments into account. Whichever way you go, someone is going to complain. DOF is pretty even and fair.</p>	<p>Indeed, the SCS audit team was able to find many documents related to DOF’s management via web searches. However, the maintenance and enhancement of HCV areas is divided between DOF and Nature Preserves. DOF is the only division within the DNR whose lands are subject to FSC evaluation. This may lead to some confusion for some stakeholder groups. See OBS for 9.2.b.</p>
<p>High Conservation Value Forests We feel that the High Conservation Value process was not open long enough for public comment.</p>	<p>DOF presented evidence that the latest HCV review was open for a nearly 90 days. One comment period actually was open for more than a year. A minimum of 30 days is required per policy. Additionally, the HCV nomination process remains open. No non-conformance is warranted.</p>
<p>Environmental concerns</p>	
<p>Habitat Conservation Plan The Indiana Department of Natural Resources (IDNR), Division of Forestry (DOF) received a Habitat Conservation Plan (HCP) planning grant from the FWS and used those funds to complete a forest inventory,</p>	<p>DOF did not do summer harvests in Priority 1 and Priority 2 tracts occupied by Indiana Bats. DOF is following interim management guidelines for Indiana Bats from March 2004 until it completes the HCP (“USFWS</p>

contract a consultant to prepare a draft HCP and EIS, and complete a number of Indiana bat surveys on DOF lands. Those efforts resulted in the verification of Indiana bats at numerous sites on DOF properties and the completion of drafts of a HCP and EIS. During that effort the FWS, IDNR, and DOF staff met many times to discuss the content of those documents. A major topic of those discussions was Indiana bat habitat requirements and how DOF forest management could continue in conjunction with Indiana bat conservation. The FWS discussed and shared our Timber Management Guidelines (TMG) with DOF throughout that process. Our TMG, if followed, will result in the avoidance of take of Indiana bats and therefore would not require the need for a HCP and/or an incidental take permit under the Endangered Species Act (ESA). Many of the actions recommended in our TMG the DOF were already completing. Avoiding tree harvest while bats are present was the issue most problematic for the DOF and the main impetus for their desire to receive a take permit. The FWS reviewed the draft HCP in 2008 and submitted comments to DOF and noted that the current draft did not meet issuance criteria and must be revised. DOF advised the FWS that they were re-evaluating their approach to the HCP and incidental take permit and would re-coordinate in the future. At that time the FWS reaffirmed with the IDNR and DOF that they should follow our TMG in order to avoid take of Indiana bats and to remain in compliance with the take prohibitions of the ESA. Since that time the DOF has not consulted with the FWS concerning ongoing timber harvest. In May of this year the FWS was copied on a Notice of Intent to sue (NOI) sent to the IDNR and DOF concerning a timber harvest at Morgan/Monroe State Forest. The basis of that NOI was the take of Indiana bats without a permit. The FWS contacted the IDNR to confirm that they were following the TMG and therefore avoiding take of Indiana bats, however, we learned that the DOF is not

Bloomington Field Office Forest Management Guidelines for Areas within Five Miles of Priority I & II Hibernacula for Indiana Bats (*Myotis sodalis*) (3/04)”; effective until HCP approved and ITP issued). These were developed in cooperation with the commenting stakeholder.

The Notice of intent to sue was due to Backcountry Area Designation. The plaintiff is attempting to sue using Indiana Bat conservation as a mechanism. However, according to DOF there are no Indiana Bat designated hibernacula those areas.

DOF is struggling to determine which areas were being logged that this stakeholder refers to. At the time of the assessment, DOF did not have any information to justify the agency’s assumptions. DOF began clarifying conversations with this stakeholder after the 2011 field assessment.

DOF explained that there have been some misunderstandings over the March 2004 guidelines between itself and the agency in reference to areas within 5 miles of Indiana Bat hibernacula. The only areas on DOF that fall within this range are on Harrison-Crawford.

See **OBS for 1.1.a.**

<p>following those guidelines. We discussed the prohibitions of take as outlined in Section 9 of the ESA with the IDNR and reiterated that by following our TMG they could avoid take of Indiana bats.</p>	
<p>Forest Management & Wildlife We encourage the DOF to do some forest management in Indiana, including the use of chainsaws. DOF wanted to incorporate research and have accountability for the money. We saw entire package on the HEE as good for the current and future situation. DOF is doing great job on getting background information on research to have a base as research continues. We would like to see a Forest Management program that goes beyond DOF and into other divisions. It is important to sell this message to the public. Division of Fish & Wildlife (DFW) and Reservoir component have potential for management within their properties. Dollars raised on DFW lands has to be used for wildlife management, so for them it is a way for forestry to fund wildlife projects. Forest management practices are wildlife practices- we have to get people to understand these processes.</p>	<p>Duly noted. It is up to DFW to determine if third-party certification has any benefit for their management system. DOF conducts many educational activities related to forest management, as well as research activities like the HEE. The results of stakeholder engagement and field research will likely both inform DOF's long-term management objectives and policies. No non-conformance is warranted.</p>
<p>Forest Management & Forest Succession There is concern of conversion of oak-hickory to maple-beech on state forests over time. There have been no changes in forest management so far as project is very young.</p>	<p>Duly noted. Wind-storms (e.g., tornadoes), fire, flooding, intra- and inter-specific competition, and disease have been historic disturbance agents in forests of Indiana that would have maintained different community types, including oak-hickory. One way to maintain or restore the oak-hickory type is through management that serves as a surrogate for the natural disturbance regime.</p>
<p>Forest Management & Forest Succession To maintain oak-hickory ecosystems takes active participation- otherwise it goes to beech-maple. The techniques that they have taught us to regenerate oak they can do on State Forests (clearcut and select cut). The silviculture is tried and true and scientifically based.</p>	<p>DOF rarely practices even-aged management such as clearcutting and shelterwoods. Selection systems are the most common.</p>
<p>Forest Succession & Forest Management on Public Lands Public comments on forest management for late seral conditions are common on Yellowwood (YW) and</p>	<p>Group selection may be perceived by the public as a clearcut, but it lacks the opening size that is likely to impact soil moisture and light conditions that would favor the more shade</p>

Morgan Monroe (MM) State Forests. Our organization works on YW and MM, but there are many other public lands in the Brown County Hills area. Public lands include a 16,000 acre state park; 80,000 acres of National Forest; 17,000 Army Core of Engineers area and several thousand acres of nature preserve. Our organization looks at the 13,000 acre Dean Wilderness Area for 'old growth' condition over time, as an area that would not receive active forest management. The 16,000 acre state park and the Corps of Engineer land are also trending towards late seral stage forest. We look at State Forests as a place to create early seral stage conditions in association with other stages. It does not seem that DOF needs to be the organization in this area providing for late seral conditions as there are other public forests that are protected from harvest. There are some areas on the state forest that managing for late seral stage conditions makes sense.

Forest Management & Forest Succession

Foresters in Indiana have historically targeted the removal of hollow beech as a means of forest improvement. Within the Central Hardwoods region, both oak-hickory and beech-maple forest community types should be maintained. There are some sites where silvicultural treatments should be aimed at recruiting and retaining oaks and hickories. There are other areas that are more mesic and favor beech and maple species. DOF has done some encouraging things for the oak-hickory type, such as initiating the Hardwood Ecosystem Experiment and increasing the size of group selection harvests. There are some other silvicultural systems that they could use, such as shelterwood harvests. This type of harvest takes more planning and patience to recruit oak regeneration. Unfortunately taking the time to prepare and recruit oak creates manpower and logistic problems that do not seem to fit their management style and harvest requirements. . It is a difficult area for them- and they acknowledge in their

intolerant species over the oak-hickory type. Group selection as practiced by DOF favors regeneration of oak-hickory as soil moisture and light conditions typically allow for these species groups to compete with more shade intolerant species while providing enough light for them to compete with shade tolerant species.

DOF has documented other forest areas that are under permanent protection from conversion to another land use type as well as state and federal forests in which harvesting is allowed in its [Statewide Forest Assessment](#).

Overall, these stakeholder comments support DOF's active management approach to restoring or maintaining the oak-hickory forest type while also considering sites that are best-suited for more mesic species to develop.

Outside of the HEE, DOF is using more group selection and fire. Shelterwood systems are not yet practiced broadly outside of the HEE, but there have been some experimental ones on Martin, Ferdinand, and Yellowwood. No non-conformance is warranted.

environmental assessment that regenerating oaks requires advanced planning, but it does not seem like they are committed to investing the time to make the system work. Single-tree selection is the most common harvest system (remove 6-12 trees per acre, and take out some nice trees and many poorly formed and damaged trees). Once single-tree has been done, some work has to be done to regenerate oak. If the basal area (BA) gets down to 40 for oak, it is difficult to regenerate oak. So single-tree selection is more of an intermediate treatment before trying to regenerate a stand (with the potential to have one or two entries prior to a regeneration cut). If we continue to do more single-tree selection on oak sites, we are pushing those sites more into beech-maple. On the state forests where you know that ownership is not going to change, they should be able to take the time to implement silvicultural systems to regenerate oak-hickory.

Forest Management & Forest Succession

The thing that we would look at is the Ecological Site description. This involves picking an ecological reference state, which is usually pre-settlement. For example, oak-hickory forests and open oak woodlands were more common in pre-settlement times. So we look at ecological reference conditions. Oak is important for lots of wildlife and insects, and there is some concern about forests going to beech-maple. It is a good thing overall not to exclude other forest types. How to define old growth? In ecological restoration, there really is no such thing. It is not a contiguous forest. The Indians did a lot of management (burning). With oak-hickory type there is lots of diversity. Some new forest management practices for oak-hickory have been thinnings from below, which let's more light in for the oak understory (similar to an intermediate shelterwood cut). We think that understories were more open than they once were. If you open up the understory, you get a diverse plant community- sometimes you

<p>need fire for this. Our forests may have been thicker than a savannah, but not as thick as a forest. Opening up the understory would help oak regeneration. When people call forests late seral or old growth in Indiana, they are probably referring to the size of trees and absence of evidence of recent management or that it does not appear to be as managed as other areas.</p>	
<p>High Conservation Value Forests When DOF first received certification, TNC commented that they needed to look at which areas needed to be HCVF besides their already established nature preserves. We thought that DOF would broaden out a little bit more and look at how HCVF's are defined and include additional land besides nature preserves. We would like to know more about what work they have done to define and identify HCVF's. We have encouraged DOF to look at HCVF more strongly- are there forest blocks within the state forests that are prime habitat for songbirds, for example? We have suggested classifying more area as HCVF to take interior forest breeding songbird habitat into account. Timber harvesting would still be compatible with HCVF's on the State Forest and for many species would be beneficial. Many songbirds do not want permanent canopy gaps, but ephemeral canopy gaps are not significantly impactful. We would like them to focus on species composition and the maintenance of native forest community types; oaks are of concern as an emphasis on Oak-Hickory forest types would benefit migratory songbirds, providing long-term for food resources and habitat. The Oak-hickory forest community types are also the facing the most threats from too many deer, lack of a natural fire regime and inappropriate forest management.</p>	<p>DOF has not classified HCVs by the six accepted types defined in the HCVF Framework. DOF has received some CARs and OBSs related to Principle 9 (HCVF) in response to updates in the FSC-US Standard. This stakeholder's comment demonstrates an awareness of HCVF classification and that management practices, including harvesting, are permitted if they are consistent with the maintenance and/or enhancement of a given HCV or set of HCVs.</p>
<p>Invasive species The state has been collaborating with IU on invasive species research (e.g., Japanese stiltgrass), although</p>	<p>An examination of DOF's management planning documents (Management Guides and the State Forest Strategy) reveals that preventative</p>

<p>we are not sure what DOF's stance is on that species. They do not appear to be attacking Japanese stiltgrass aggressively. Japanese stiltgrass can be seen very regularly along trails and roads and quickly takes over disturbed areas following harvest. We have been encouraging them to control it before they do a harvest and after a harvest. It is not common in Indiana for logging crews to clean logging equipment before going to another site and road building and trail maintenance is shared between state forest properties. We are not sure of their cleaning protocols. The state has looked into creating BMPs for invasive species prevention, however. Cleaning puts the burden on the logger, and we are not sure if the best solution is to clean equipment or to control invasive species prior to harvest. Harvesting can contribute to spreading invasive species. In terms of biological control, there is a fungus that may be having impact on Japanese stiltgrass; research suggests that the fungus may be in Indiana. IU researchers have looked at stilt-grass pre- and post-harvest to look at control techniques.</p>	<p>management practices have been discussed among DOF staff and stakeholders, but that systematic implementation of such practices has yet to be achieved. See CAR for indicator 6.3.h.</p>
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4.0 Results of the Evaluation

Table 4.1.1 below, contains the evaluation team's findings as to the strengths and weaknesses of the subject forest management operation relative to the FSC Principles of forest stewardship. Weaknesses are noted as Corrective Action Requests (CARs) related to each principle.

Table 4.1.1 Notable strengths and weaknesses of the forest management enterprise relative to the FSC P&C.

Principle/ Subject Area	Strengths Relative to the Standard	Weaknesses Relative to the Standard
P1: FSC Commitment and Legal Compliance	DOF detects and mitigates unauthorized and illegal activities in a timely fashion. DOF has communicated changes of ownership in a timely manner to the certification body.	OBS 2011.1, CAR 2011.2

P2: Tenure & Use Rights & Responsibilities	DOF's rights to the forest resource are well established. DOF easily provided evidence of leases and rights of way for each state forest.	None noted.
P3: Indigenous Peoples' Rights	DOF protects all archaeological sites found, regardless of whether or not a tribe has requested to be involved.	None noted.
P4: Community Relations & Workers' Rights	The average DOF employee tenure is quite long compared to that of private industry. Job security is a bigger draw than the salary level at the state. Contract safety requirements are robust and support DOF's efforts in improving logger education.	CAR 2011.3
P5: Benefits from the Forest	Despite a general trend of budget reduction, DOF still maintains a surplus and is able to reinvest in forest management. DOF's has adopted a 4 year rolling interval for staying within the calculated allowable harvest rate, which goes beyond FSC's 10 year requirement.	None noted.
P6: Environmental Impact	DOF's prescribed burning program and oak-hickory restoration program have benefits for a wide variety of wildlife species. DOF staff are knowledgeable of Indiana Bat requirements. Herbicide guidelines for Brown County are concise and recommend the best treatment options for the time of year and species.	CARs 2011.4, 2011.5, 2011.6, 2011.8, 2011.9, and OBS 2011.17; and OBS 2011.7
P7: Management Plan	All management plan contents are available to the employees and the public on the internet.	CAR 2011.10
P8: Monitoring & Assessment	Overall, DOF's monitoring program is robust at each state forest.	CAR 2011.11
P9: High Conservation Value Forests	DOF has left its HCVF nomination process open. That is, the public is	CARs 2011.12, 2011.14, and 2011.15; and OBS 2011.13

	still allowed to submit nominations for areas to undergo evaluation for the presence of HCVs.	
P10: Plantations	N/A	N/A
Chain of custody	Adherence to COC procedures is strong. DOF is supportive of industry's marketing of FSC certified products.	CAR 2011.16

4.2 Process of Determining Conformance*

4.2.1 Structure of standard and degrees of non-conformance

FSC-accredited forest stewardship standards consist of a three-level hierarchy: principle, the criteria that correspond to that principle, and then the performance indicators that elaborate each criterion. Consistent with SCS Forest Conservation Program evaluation protocols, the team collectively determines whether or not the subject forest management operation is in conformance with every applicable indicator of the relevant forest stewardship standard. Each non-conformance must be evaluated to determine whether it constitutes a major or minor non-conformance at the level of the associated criterion or sub-criterion. Not all indicators are equally important, and there is no simple numerical formula to determine whether an operation is in non-conformance. The team therefore must use their collective judgment to assess each criterion and determine if the FME is in conformance. If the FME is determined to be in non-conformance at the criterion level, then at least one of the applicable indicators must be in major non-conformance.

Corrective action requests (CARs) are issued for every instance of a non-conformance. Major non-conformances trigger major CARs and minor non-conformances trigger minor CARs.

Box 4.2.1 - Interpretations of Major CARs (Preconditions), Minor CARs and Observations

Major CARs/Preconditions: Major non-conformances, either alone or in combination with non-conformances of all other applicable indicators, result (or are likely to result) in a fundamental failure to achieve the objectives of the relevant FSC Criterion given the uniqueness and fragility of each forest resource. These are corrective actions that must be resolved or closed out before a certificate can be awarded. If Major CARs arise after an operation is certified, the timeframe for correcting these non-conformances is typically shorter than for minor CARs. Certification is contingent on the certified FME's response to the CAR within the stipulated time frame.

Minor CARs: These are corrective action requests in response to minor non-conformances, which are typically limited in scale or can be characterized as an unusual lapse in the system. Most minor CARs are the result of non-conformity at the indicator-level. Corrective actions must be closed out within a specified time period of award of the certificate.

Observations: These are subject areas where the audit team concludes that there is conformance, but either future non-conformance may result due to inaction or the FME could achieve exemplary status through further refinement. Action on observations is voluntary and does not affect the maintenance of the certificate. However, observations can become CARs if performance with respect to the indicator(s) triggering the observation falls into non-conformance.

4.2.2 Preconditions

<input checked="" type="checkbox"/>	No preconditions were placed on FME during the evaluation. Any minor CARs from previous surveillance audits have been reviewed and closed prior to the issuance of a certificate. The disposition of any of these minor CARs is described in the separate CAR report file included as part of the public summary on the FSC certificate database.
<input type="checkbox"/>	Preconditions were placed on the FME during the evaluation, which have all been closed to the satisfaction of the audit team and meet the requirements of the standards. Any minor CARs from previous surveillance audits have been reviewed and closed prior to the issuance of a certificate. These are described in the separate CAR report file included as part of the public summary on the FSC certificate database.
<input type="checkbox"/>	Preconditions were placed on the FME during the evaluation and the FME has not yet satisfactorily closed all preconditions.
<i>Check ONLY one of the boxes above.</i>	

4.2.3 Minor Corrective Action Requests (CARs) and Observations (OBSs)

To view CARs and OBSs assigned during the evaluation, refer to the separate CAR report file.

5.0 Certification Decision

Certification Recommendation	
FME be awarded FSC certification as a “Well-Managed Forest” subject to the minor corrective action requests stated in Section 4.2.3.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
The SCS evaluation team makes the above recommendation for certification based on the full and proper execution of the SCS Forest Conservation Program evaluation protocols. If certification is recommended, the FME has satisfactorily demonstrated the following without exception:	
FME has addressed any and all Major CAR(s) assigned during the evaluation.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
FME has demonstrated that their system of management is capable of ensuring that all of the requirements of the applicable standards are met over the forest area covered by the scope of the evaluation.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
FME has demonstrated that the described system of management is being implemented consistently over the forest area covered by the scope of the	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

certificate.	
Comments: Some stakeholders perceive that DOF favors input from groups who agree with DOF's position. Evaluating and responding to stakeholder concerns is a challenge for any public organization. SCS therefore recommends a public stakeholder meeting for the 2012 annual audit.	

6.0 Surveillance evaluations

SECTION B – APPENDICES

Appendix 1 – FSC Data Request (Public)

Social Information	
Number of forest workers (including contractors) working in forest within scope of certificate (differentiated by gender):	
145 # of male workers	41 # of female workers
Production Forests	
Timber forest products	
Total area of production forest (i.e. forest from which timber may be harvested)	<i>150,651 acres</i>
Area of production forest classified as 'plantation'	<i>0 acres</i>
Area of production forest regenerated primarily by replanting or by a combination of replanting and coppicing of the planted stems ⁶	<i>0 acres</i>
Area of production forest regenerated primarily by natural regeneration, or by a combination of natural regeneration and coppicing of the naturally regenerated stems	<i>450 acres</i>
The sustainable rate of harvest (usually the AAC where available) of commercial timber (cubic meters of round wood)	<i>24,700,000 BF</i>
Non-timber forest products	
Area of forest protected from commercial harvesting of timber and managed primarily for the production of NTFPs or services	<i>0 acres</i>
Approximate annual commercial production of non-timber forest products included in the scope of the certificate, by product type	<i>0 acres</i>
Species and product categories in scope of joint FM/COC certificate	
<i>Scientific/ Latin Name (Common/ Trade Name)</i>	

⁶ The area is the *total* area being regenerated primarily by planting, *not* the area which is replanted annually. NB this area may be different to the area defined as a 'plantation' for the purpose of calculating the Annual Accreditation Fee (AAF) or for other purposes.

FSC Product Classification			
Wood Products	Product Level 1	Product Level 2	
<input checked="" type="checkbox"/>	W1 Rough Wood	W1.1 Roundwood (logs)	
<input checked="" type="checkbox"/>	W1 Rough Wood	W1.2 Fuel Wood	
<input type="checkbox"/>	W1 Rough Wood	W1.3 Twigs	
<input type="checkbox"/>	W2 Wood charcoal		<i>E.g. Barbecue charcoal</i>
<input checked="" type="checkbox"/>	W3 Wood in chips or particles	W3.1 Wood chips <i>(Please select the appropriate product from the list)</i>	
<input type="checkbox"/>	W5 Solid wood (sawn, chipped, sliced or peeled)	W5.1 Flitches and boules <i>(Please select the appropriate product from the list)</i>	<i>E.g. Lumber core, rough-cut lumber, blockboard, stave core board, Railroad tie, Wood blocks, friezes, strips.</i>
Non-timber forest products	Product Level 1	Product Level 2	Product Level 3
<input type="checkbox"/>	N1 Bark		
<input type="checkbox"/>	N4 Straw, wicker, rattan and similar	N4.1 Rattan cane (rough form) <i>(Please select the appropriate product from the list)</i>	
<input type="checkbox"/>	N6 Plants and parts of plants	N6.1 Flowers <i>(Please select the appropriate product from the list)</i>	<input type="checkbox"/> N6.3.1 Christmas trees
<input type="checkbox"/>	N7 Natural gums, resins, oils and derivatives	N7.1 Rubber/ Latex <i>(Please select the appropriate product from the list)</i>	<i>E.g. Gum arabic, gum tragacanth, gamboge, frankincense, myrrh, Dammar, elemi, sandarac, canada balsam, benjamin, pitch, lacquer, unguents, incense, Camphor, Brazil nut oil, Copaiba Oil.</i>
<input type="checkbox"/>	N9 Food	N9.1 Nuts <i>(Please select the appropriate product from the list)</i>	<i>E.g. Deer, rabbit, berries, açai, Shiitake mushrooms, pine mushrooms, mate, Brazil nuts, cashew nuts</i>
For a full list of FSC product classes, product types, and product sub-types, see FSC-STD-40-004a (Version 2-0) EN – FSC Product Classification.			

Conservation Areas				
Area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives				2427
High Conservation Value Forest/ Areas				
High Conservation Values present and respective areas				
	Code	HCV Type ⁷	Description & Location	Area
<input checked="" type="checkbox"/>	HCV1	Forests or areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).	Virginia Pine-Chestnut Oak, Clark SF, (19.4 A) Alum Cave Hollow, Clark SF, (164.2 A) Batwing Cave, Harrison-Crawford SF, (10.5 A) Deam's Bluff, Harrison-Crawford SF, (251.9 A) Scout Ridge, Morgan-Monroe SF, (15.1 A) Crooked Creek, Yellowwood SF, (34.3 A)	495.4 Acres
<input type="checkbox"/>	HCV2	Forests or areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.		
<input checked="" type="checkbox"/>	HCV3	Forests or areas that are in or contain rare, threatened or endangered ecosystems.	White Oak , Clark SF,(133.7 A) Post Oak-Cedar, Harrison-Crawford SF, (275.5 A); Scout Mountain, Harrison-	1873.5 Acres

⁷ High conservation values should be classified following the numbering system given in the ProForest High Conservation Value Forest Toolkit (2003) available at www.ProForest.net or at www.wwf.org

			<p>Crawford SF, (47.7 A)</p> <p>Leavenworth Barrens, Harrison-Crawford SF, (747.5 A)</p> <p>Blue River Gravel Wash Barrens, Harrison-Crawford SF, (77.6 A)</p> <p>Indian Bitter, Jackson-Washington SF, (36.7 A)</p> <p>Knobstone Glades, Jackson-Washington SF, (58.8 A)</p> <p>Henshaw Bend, Martin SF, (82.5 A)</p> <p>Tank Spring, Martin SF, (62.9 A)</p> <p>Low Gap, Morgan-Monroe SF,(320 A)</p> <p>Miller Ridge, Yellowwood SF, (30.6 A)</p>	
<input type="checkbox"/>	HCV4	Forests or areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).		
<input type="checkbox"/>	HCV5	Forests or areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).		
<input type="checkbox"/>	HCV6	Forests or areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).		
Total Area of forest classified as 'High Conservation Value Forest/ Area'				<i>ha or ac</i>

Appendix 2 – Current and Projected Annual Harvest for Main Commercial Species (CONFIDENTIAL)



5A
draft_cfi_property_s)



5A FY 2009-2010
Timber Sale Summary

Appendix 3 – Certification Standard Conformance Table (CONFIDENTIAL)

REQUIREMENT	N/C	COMMENT/CAR
P1 Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.		
C1.1 Forest management shall respect all national and local laws and administrative requirements.	C	
1.1.a. Forest management plans and operations demonstrate compliance with all applicable federal, state, county, municipal, and tribal laws, and administrative requirements (e.g., regulations). Violations, outstanding complaints or investigations are provided to the Certifying Body (CB) during the annual audit.	C	<p>Indiana DNR Division of Forestry (“DOF”) demonstrated road, logging, and watershed protection ordinances from some counties with rules that go beyond the state regulations (e.g., 1A Logging Ordinances for Monroe Watershed). DOF presented documents (2002 lawsuit, 2005 Intent to Sue) related to a lawsuit against DOF by another party who alleges that the state has failed to comply with the Indiana Environmental Protection Act (IEPA), which requires an environmental assessment.</p> <p>DOF is a unit of the Department of Natural Resources, a state agency within the executive branch of the Indiana state government. DOF reported that a notice of intent to sue issued on May 25, 2011 by an environmental NGO, but that no follow-up action on the NGO’s part has occurred.</p> <p>See OBS 2011.1</p>
1.1.b. To facilitate legal compliance, the forest owner or manager ensures that employees and contractors, commensurate with their responsibilities, are duly informed about applicable laws and regulations.	C	DOF provided a sample Timber Sale Agreement (4A, 2009) that references to OSHA requirements, compliance with federal/ state/ local laws, discrimination, BMPs, wet weather access, fire prevention and control, etc.
C1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.	C	
1.2.a. The forest owner or manager provides written evidence that all applicable and legally prescribed fees, royalties, taxes and other charges are being paid in a timely manner. If payment is beyond the control of the landowner or manager, then there is evidence that every attempt at payment was made.	C	<p>DOF provided a budget overview to the SCS audit team detailing budgets for FY09-FY12.</p> <p>DOF must pay 15% of net timber sale proceeds to the county from which the timber sale originated. IC14-23-4-6, established under House Enrolled Act 1424, requires that 50% of these net proceeds received be distributed to rural and volunteer fire departments within the county. Each fire department within a county can receive a maximum of \$1,000 unless other arrangements are made with county legislative bodies. See 4D Fire Department Share of Timber Sale Revenue FY09-10 for more details.</p>
C1.3. In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.	C	
1.3.a. Forest management plans and operations comply with relevant provisions of all applicable binding international agreements.	C	In the State of Indiana, there is one forest species covered under CITES, <i>Panax quinquefolius</i> or American ginseng. In the United States, each state is responsible to regulating the commercial sale of this CITES-listed

		<p>species. Commercial harvest of ginseng is regulated through the <i>Indiana Administrative Code, Title 312, Article 19 Research, Collection, Quotas, and Sales of Plants</i>, and <i>Indiana Code IC 14-31-3, Chapter 3. Ginseng</i>. Commercial harvesters and sellers must obtain permits and licenses through the State of Indiana and adhere to harvesting practices intended to maintain the ginseng resource.</p> <p>ITTA is not applicable. Federal and State regulations, such as the Endangered Species Act, are intended to address issues of biodiversity, such as RTE species.</p> <p>ILO Conventions that the US has ratified are met through federal and state laws. Conventions 87 and 98 regarding freedom of association and collective bargaining, respectively, do not apply to public employees.</p>
C1.4. Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.	C	
1.4.a. Situations in which compliance with laws or regulations conflicts with compliance with FSC Principles, Criteria or Indicators are documented and referred to the CB.	C	<p>There previously have been no noted conflicts between FSC P&C and laws or regulations. There is an expectation for DOF to raise any conflicts between laws and FSC Principles to SCS. During the 2011 recertification evaluation, DOF noted that some parts of the state purchasing regulations may go against the preference for procurement of local goods and services in that DOF must attempt to procure goods and services through organizations that have been granted contracts for large or bulk items through the state's competitive bidding process. However, indicator 4.1.e asks that DOF seek opportunities for purchasing local goods and services of equal price and quality. It was found that despite some of the state regulations, local DOF offices are able to procure some goods and services from local sources.</p>
C1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.	C	
1.5.a. The forest owner or manager supports or implements measures intended to prevent illegal and unauthorized activities on the Forest Management Unit (FMU).	C	<p>DOF is taking significant actions to reduce the risk of unauthorized activities by periodically (5 years) painting all property boundaries. It appears that forest managers have good rapport with the public and attempt informal resolution when conflicts arise.</p> <p>Off highway vehicles and ATVs are flat out prohibited on State Forests, thus reducing exposure to riders that abuse public lands, a common problem across the U.S. No ATV activity was observed during the assessment.</p> <p>Other factors contributing to strong conformance with this indicator include:</p> <ul style="list-style-type: none"> • DOF is purchasing in-holdings in order to have a more contiguous ownership that is easier to manage • DOF gates access roads

		<ul style="list-style-type: none"> • DOF maintains a “good neighbor database” and invites the public to yearly open houses. • Law Enforcement Officers patrol areas where unwanted activities occur.
1.5.b. If illegal or unauthorized activities occur, the forest owner or manager implements actions designed to curtail such activities and correct the situation to the extent possible for meeting all land management objectives with consideration of available resources.	C	<p>DOF is able to control or mitigate the effects of most unauthorized activities on the FMU. Law enforcement officers take action when illegal activities are detected.</p> <p>No ATV activity was observed during the assessment. DOF attempts to deal with unauthorized horse trails by hindering entrances to them and repairing existing authorized trails.</p>
C1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.	C	
1.6.a. The forest owner or manager demonstrates a long-term commitment to adhere to the FSC Principles and Criteria and FSC and FSC-US policies, including the FSC-US Land Sales Policy, and has a publicly available statement of commitment to manage the FMU in conformance with FSC standards and policies.	NC	<p>DOF has made a public commitment to manage the state forests in conformance with the FSC Principles & Criteria. The new language of the FSC-US Standard is specific to standards and policies.</p> <p>See CAR 2011.2</p>
1.6.b. If the certificate holder does not certify their entire holdings, then they document, in brief, the reasons for seeking partial certification referencing FSC-POL-20-002 (or subsequent policy revisions), the location of other managed forest units, the natural resources found on the holdings being excluded from certification, and the management activities planned for the holdings being excluded from certification.	C	<p>DOF has included the entirety of the state forest FMU within the scope of the FSC certificate, but has minor management involvement on other forestland within the State DNR system. Since DOF does not have management oversight or decision-making power, this does not warrant the seeking of Partial Certification or violate the Policy on Association. That is, DOF does not meet the definition of indirect involvement on other divisions within the Indiana DNR per the first clause of the previous sentence.</p>
1.6.c. The forest owner or manager notifies the Certifying Body of significant changes in ownership and/or significant changes in management planning within 90 days of such change.	C	<p>DOF has not experiences and significant changes in ownership or management during the past year. Land swaps and acquisitions have amounted to the certified FMU remaining roughly the same size.</p> <p>Through the acquisition process, DOF is attempting to create a new state forest (Covered Bridge State Forest; own 400 acres at this point on Sugar Creek). DOF is expected to inform the certifier if and when this transaction becomes official.</p>
P2 Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.		
C2.1. Clear evidence of long-term forest use rights to the land (e.g., land title, customary rights, or lease agreements) shall be demonstrated.	C	
2.1.a. The forest owner or manager provides clear evidence of <i>long-term</i> rights to use and manage the FMU for the purposes described in the management plan.	C	<p>DOF was established through legislation in the 1920s. The ownership of State Forests can be verified through county records and at the central office. DOF tracks legal ownership through State Land Office with online GIS mapping system and deed links for each parcel. Internally, DOF has a managed-land database that the general public does not see.</p> <p>DOF’s land acquisition strategy is to purchase in-holdings or adjacent lands for forest management (every division within the DNR has its own funding mechanism and priorities). Through the acquisition process, DOF is attempting to create a new state forest</p>

		(Covered Bridge State Forest; own 400 acres at this point on Sugar Creek).
2.1.b. The forest owner or manager identifies and documents legally established use and access rights associated with the FMU that are held by other parties.	C	DOF provided a sample of lease agreements and permits to the SCS assessment team (e.g., Come Again LLC Horse Trail agreement, Tulip Trace with TNC, Shipley Farm Lease, and event permit for Spook Run Endurance Ride), as well as a spreadsheet of established rights-of-way on the FMU (see 2D State Forest Permits).
2.1.c. Boundaries of land ownership and use rights are clearly identified on the ground and on maps prior to commencing management activities in the vicinity of the boundaries.	C	DOF is taking significant actions to reduce the risk of unauthorized activities by periodically (5 years) painting all property boundaries. DOF maps include property boundaries and information on other use rights (e.g., rights-of-way). These maps are prepared during the planning phase prior to timber sales and other contracted management activities going out to bid.
<p>C2.2. Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.</p> <p><i>Applicability Note: For the planning and management of publicly owned forests, the local community is defined as all residents and property owners of the relevant jurisdiction.</i></p>	C	
2.2.a. The forest owner or manager allows the exercise of tenure and use rights allowable by law or regulation.	C	<p>DOF provided a sample of lease agreements and permits to the SCS assessment team (e.g., Come Again LLC Horse Trail agreement, Tulip Trace with TNC, Shipley Farm Lease, and event permit for Spook Run Endurance Ride), as well as a spreadsheet of established rights-of-way on the FMU (see 2D State Forest Permits). DOF attempts to make some permits and easements permanent where long-term use is expected and recovery of the area as forestland is unlikely.</p> <p>Stakeholder consultation with holders of use rights yielded no complaints. DOF allows the exercise thereof. Customary recreational uses are accommodated and managed in an exemplary manner. Access to in-holding properties appears to be properly managed. Relatives are allowed to fence gravesites within the forest boundaries.</p>
2.2.b. In FMUs where tenure or use rights held by others exist, the forest owner or manager consults with groups that hold such rights so that management activities do not significantly impact the uses or benefits of such rights.	C	<p>The primary mechanism for consulting with concerned and affected stakeholders is an annual open house. Considerable efforts are made to get attendance at the open house, such as raffles, free food, free firewood, and education.</p> <p>Neighboring property owners are notified of upcoming timber harvests, and signs with DOF contact information are posted at entry points. Additionally, meetings with concerned and affected stakeholders occur on an as requested basis.</p> <p>DOF staff maintains regular contact with permittees</p>

		and other people with rights to use of resources on the FMU.
C2.3. Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.	C	
2.3.a. If <i>disputes</i> arise regarding tenure claims or use rights then the forest owner or manager initially attempts to resolve them through open communication, negotiation, and/or mediation. If these good-faith efforts fail, then federal, state, and/or local laws are employed to resolve such disputes.	C	<p>DOF maintains an open door policy both at the level of the central office and each state forest. SCS was informed the strategy is to listen to the complaint, make accommodations and resolve the issue if possible, or explain the reason for not being able to accommodate the concern.</p> <p>If concerns cannot be resolved at the individual state forest level, or the central office, concerned stakeholders are informed that they can raise their complaints to the Natural Resources Commission (NRC) - which meets monthly. Following the NRC, the U.S. court system is an option.</p> <p>DOF attempts to deal with encroachment issues on a case-by-case basis (e.g., boundary issues, such as cutting some trees and installation of septic tanks on state lands).</p> <p>DOF staff regularly check boundaries for timber sales that about other ownerships. Additionally, they apply a no-harvest buffer zone to these types of sales.</p>
2.3.b. The forest owner or manager documents any significant disputes over tenure and use rights.	C	DOF tracks legal ownership and boundary disputes through the State Land Office. Most issues deal with timber theft and unauthorized installation of septic lines or other utilities into state lands.
P3 The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.		
C3.1. Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.	NA	The FMU does not include any tribal lands or enterprises.
3.1.a. Tribal forest management planning and implementation are carried out by authorized tribal representatives in accordance with tribal laws and customs and relevant federal laws.	NA	
3.1.b. The manager of a tribal forest secures, in writing, informed consent regarding forest management activities from the tribe or individual forest owner prior to commencement of those activities.	NA	
C3.2. Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.	C	
3.2.a. During management planning, the forest owner or manager consults with American Indian groups that have legal rights or other binding agreements to the FMU to avoid harming their resources or rights.	C	In May of 2007, DOF sent letters to both federally recognized and unrecognized tribes with ancestral connections to the State of Indiana. DOF received three responses, including one update to contact information. Tribes have not expressed interest in any DOF state forests or resources. SCS' stakeholder consultation yielded no responses from tribes.

3.2.b. Demonstrable actions are taken so that forest management does not adversely affect tribal resources. When applicable, evidence of, and measures for, protecting tribal resources are incorporated in the management plan.	C	There are a few lithic scatters and isolated finds on some DOF lands. Lithic scatters may be managed depending on risk to archaeology site. Harrison-Crawford has chert, so there are many lithic scatters, but on another property this may be more significant. That is, the intensity of protection measures depends on how representative these findings are on these sites. DOF conducts site surveys for deposits and in that process identifies the need to research further areas. This is in procedures manual for cultural resources. DOF has also developed a White Paper on its protection of archaeological resources.
C3.3. Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.	C	
3.3.a. The forest owner or manager invites consultation with tribal representatives in identifying sites of current or traditional cultural, archeological, ecological, economic or religious significance.	C	In May of 2007, DOF sent letters to both federally recognized and unrecognized tribes with ancestral connections to the State of Indiana. The letter had a cultural emphasis. No responses regarding the identification of sites of current or traditional cultural, archeological, ecological, economic or religious significance.
3.3.b. In consultation with tribal representatives, the forest owner or manager develops measures to protect or enhance areas of special significance (see also Criterion 9.1).	C	As no sites were identified by tribal representatives, the DOF has adopted its own protection measures of archaeological sites.
C3.4. Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.	NA	DOF does not employ any traditional knowledge in its forest management.
3.4.a. The forest owner or manager identifies whether traditional knowledge in forest management is being used.	NA	
3.4.b. When traditional knowledge is used, written protocols are jointly developed prior to such use and signed by local tribes or tribal members to protect and fairly compensate them for such use.	NA	
3.4.c. The forest owner or manager respects the confidentiality of tribal traditional knowledge and assists in the protection of such knowledge.	NA	
P4 Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.		
C4.1. The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.	C	
4.1.a. Employee compensation and hiring practices meet or exceed the prevailing local norms within the forestry industry.	C	SCS interviewed one of the State's Human Resources staff to review compensation and hiring practices. Indiana uses a banding system to determine salaries, which means that they are based on a set of positions that have been determined to have similar levels of qualifications and/or responsibilities. These pay rates are standardized across the State based on salary surveys. Additionally, some positions may include a recruiting differential that goes above the established

		band in order to attract candidates from both private and public sectors. A description of the State's benefit package options is available at http://www.in.gov/spd/ .
4.1.b. Forest work is offered in ways that create high quality job opportunities for employees.	C	State employment packages conform to this indicator. Evidence includes that the average employee tenure is quite long compared to that of private industry. Job security is a bigger draw than the salary level at the state. Furthermore, DOF employees typically are assigned a diversity of tasks, which helps to maintain employee interest.
4.1.c. Forest workers are provided with fair wages.	C	State wages are competitive as they allow DNR to recruit from public and private sectors. DOF does not have trouble filling positions. According to the US Census, the median household income in 2009 was \$45,427 for an average 2.49 persons per household in Indiana (http://quickfacts.census.gov/qfd/states/18000.html). The annual salary for State of Indiana jobs ranges from \$15,000 for entry level clerical positions to over \$100,000 for positions requiring higher skill/experience levels (http://www.in.gov/spd/2386.htm).
4.1.d. Hiring practices and conditions of employment are non-discriminatory and follow applicable federal, state and local regulations.	C	<p>DOF's timber sale contract, item 20, includes a statement that contractors must conform to non-discriminatory policies in accordance to applicable federal and state laws. "4A TSI Bid-Contract under \$75,000" item 16 includes a requirement on nondiscrimination.</p> <p>Federal and State hiring and civil rights postings were observed in the DOF's central office in Indianapolis. DOF uses the E-Verify system to do background checks on new employees for compliance with Homeland Security. There have been no discrimination reports in recent years.</p> <p>DOF must abide by federal and state laws when hiring new workers. For example, IC 22-9-2 covers age discrimination. The state government agency, the Indiana Civil Rights Commission (http://www.in.gov/icrc/) handles cases of discrimination and states that in Indiana:</p> <p><i>The people of Indiana are entitled by law to work and seek employment without being discriminated against on the basis of their disability (physical or mental), national origin, ancestry, race, color, religion and gender.</i></p> <ul style="list-style-type: none"> • <i>An employee or an applicant for employment may file a complaint when:</i> • <i>The alleged discriminatory act occurred within the past 180 days</i> • <i>An employer or potential employer has six or more employees</i>
4.1.e. The forest owner or manager provides work opportunities to qualified local applicants and seeks opportunities for purchasing local goods and services of equal price and quality.	C	<p>Evidence of conformance includes:</p> <ul style="list-style-type: none"> • DOF predominately hires locally trained people; • The State of Indiana purchasing program has

		<p>a preference for Indiana businesses. Most service providers are local or regionally based.</p> <ul style="list-style-type: none"> Stakeholders who have purchased timber sales state that the size and scope of sales are very appropriately suited to their size of operation. Managers are very aware of the advantages of maintaining the competitiveness of small local contractors. Most sales are purchased by contractors with 95 miles of sale units. See indicator 1.4.a for additional information.
4.1.f. Commensurate with the size and scale of operation, the forest owner or manager provides and/or supports learning opportunities to improve public understanding of forests and forest management.	C	<p>DOF makes significant contributions to the public education, such as:</p> <ul style="list-style-type: none"> Active participation in local Project Learning Tree programs; hosting numerous logger training sessions (e.g., Game of Logging or GOL); DOF has established forestry research/demonstration areas (e.g., Hardwood Ecosystem Experiment; http://www.heeforeststudy.org/). Records of 70+ education events offered and open to the public during the past 3 years.
4.1.g. The forest owner or manager participates in local economic development and/or civic activities, based on scale of operation and where such opportunities are available.	C	<p>DOF makes substantial contributions to the local economy. Payments in Lieu of Taxes (set at 15% of timber sales) are an important source of revenue for many towns (see indicator 1.2.a for more details). Additionally, forest managers make attempts to purchase goods and services locally, such as servicing vehicles locally or purchasing materials from local businesses. Furthermore, the state forests provide a number of excellent recreation opportunities. Recreation constitutes a significant portion of economic activity during certain times of the year in many small rural communities.</p>
C4.2. Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.	C	
4.2.a. The forest owner or manager meets or exceeds all applicable laws and/or regulations covering health and safety of employees and their families (also see Criterion 1.1).	C	<p>DOF takes active steps to ensure safety, such as:</p> <ul style="list-style-type: none"> safety inspections from Indiana Human Resources occur at each state forest; safety meetings take place once per month; safety training classes are offered, e.g., chainsaw safety for DOF employees; DOF provides insect repellent and safety boots for staff; DOF is an active support of logger education in Indiana.
4.2.b. The forest owner or manager and their employees and contractors demonstrate a safe work environment. Contracts or other written agreements include safety requirements.	C	<p>DOF's timber sale agreement (4A Timber Sale Agreement includes several items related to safety (see items 12, 13, 15, 18, and 19). The TSI contract (4A TSI Bid-Contract under \$75,000) includes a section on compliance with all applicable federal, state, and local laws, which includes OSHA safety requirements.</p>
4.2.c. The forest owner or manager hires well-qualified service providers to safely implement the management	C	<p>DOF's timber sale agreement requires that at least one logger on each job site have at least complete Game of</p>

plan.		Logging (GOL) Level 1 training.
C4.3 The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labor Organization (ILO).	C	
4.3.a. Forest workers are free to associate with other workers for the purpose of advocating for their own employment interests.	C	The right for workers to freely associate and unionize is clearly protected by U.S. and Indiana law. ILO Convention 87 and 98, however, do not apply to public sector workers. Under U.S. Federal Law and consistent with ILO 98, public sector employee rights are established by the U.S. Congress for federal employees and by state legislatures for state, county and local public sector employees. The right to organize is outlined in IC 22-7 http://www.in.gov/legislative/ic/code/title22/ar7/ ; accessed October 12, 2011). A recent attempt in the Indiana legislature to make Indiana into a "right to work" state did not pass in late March of 2011.
4.3.b. The forest owner or manager has effective and culturally sensitive mechanisms to resolve disputes between workers and management.	C	DOF must follow federal and State of Indiana laws. From Title 22, Article 6, Indiana Codes have been established for labor relations, including disputes (http://www.state.in.us/legislative/ic/code/title22/ ; accessed October 12, 2011). Disputes may be filed with the Indiana Department of Labor (http://www.in.gov/). A dispute procedure is outlined in <i>4A TSI Bid-Contract under \$75,000</i> . For the timber sale contract (4A Timber Sale Agreement), there is no specific language on dispute resolution other than reference to bringing suit within the State of Indiana in case of disagreement. Disputes are dealt with depending on the issue. Discrimination, for example, may require an investigation by HR. DOF has a formal complaint system for employees. Employees must file complaints with the Agency Director with specific accusations (e.g., compliance with laws, management policies) and grievances. If employees are dissatisfied with Agency response, then employee can appeal.
C4.4. Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations.	C	
4.4.a. The forest owner or manager understands the likely social impacts of management activities, and incorporates this understanding into management planning and operations. Social impacts include effects on: <ul style="list-style-type: none"> • Archeological sites and sites of cultural, historical and community significance (on and off the FMU); • Public resources, including air, water and food (hunting, fishing, collecting); • Aesthetics; • Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health; • Community economic opportunities; 	NC	Historical archaeological sites are in many areas and most likely make 80-90% of annual archaeological findings. The Historic Sites are mostly old homesteads, cottage industry sites, and old schools and churches. DHPA must be contacted for all archeological sites as they are regulatory agency over site investigations. DOF must send site report. Cultural sites, such as cemeteries, are maintained. As for Economic opportunities, timber sales are offered at different scales (volumes) for different businesses, such as for TSI and invasive species control. DOF has several open houses each year for public

<ul style="list-style-type: none"> Other people who may be affected by management operations. <p>A summary is available to the CB.</p>		<p>outreach that have an education component. DOF also has exhibits at county fairs.</p> <p>Much of this information is updated on an annual basis, but is not summarized.</p> <p>See CAR 2011.3</p>
<p>4.4.b. The forest owner or manager seeks and considers input in management planning from people who would likely be affected by management activities.</p>	C	<p>All management planning documents and timber sale plans are open to public comment for at least 30 days prior to finalization. Additionally, DOF holds several public meetings and open houses throughout the state each year to solicit and address public comments.</p>
<p>4.4.c. People who are subject to direct adverse effects of management operations are apprised of relevant activities in advance of the action so that they may express concern.</p>	C	<p>There are two principle ways that people are apprised of relevant activities: 1) timber sales & state forest management guides are on the website and stakeholders can provide comments; and 2) Open houses (at open house will have list of planned activities). DOF also attempts to prepare news releases to advertise events. For adjacent landowners, a notification letter on upcoming timber sales is sent.</p>
<p>4.4.d. For public forests, consultation shall include the following components:</p> <ol style="list-style-type: none"> Clearly defined and accessible methods for public participation are provided in both long and short-term planning processes, including harvest plans and operational plans; Public notification is sufficient to allow interested stakeholders the chance to learn of upcoming opportunities for public review and/or comment on the proposed management; An accessible and affordable appeals process to planning decisions is available. <p>Planning decisions incorporate the results of public consultation. All draft and final planning documents, and their supporting data, are made readily available to the public.</p>	C	<p>For background in this indicator and DOF, see Major CAR 2006.2 and minor CAR 2007.1. This indicator is nearly identical to the previous standard and those CARs addressed items 1-3, as well as the unnumbered part, of the indicator.</p> <p>See indicator 7.1.r for an explanation of the stakeholder consultation process that address parts 1-3 of this indicator. See also comments in Principle 9 related to public consultation.</p> <p>In Indiana, stakeholders are free to use the legal system to appeal planning decisions. However, DOF's notification to adjacent landowners of upcoming activities, open door policies, annual open houses, and State Forest Stewardship Committee meetings are avenues for resolving grievances prior to legal action.</p> <p>All management planning documents (drafts and final versions), including upcoming timber sales, are made completely available to the public online. The public can also access publications and data on the website or upon request.</p>
<p>C4.5. Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.</p>	C	
<p>4.5.a. The forest owner or manager does not engage in negligent activities that cause damage to other people.</p>	C	<p>DOF staff regularly check boundaries for timber sales that abut other ownerships. Additionally, they apply a no-harvest buffer zone to these types of sales. SCS' stakeholder consultation uncovered no cases of negligent behavior in DOF staff. DOF also reported no pending cases of this nature.</p>
<p>4.5.b. The forest owner or manager provides a known and accessible means for interested stakeholders to voice grievances and have them resolved. If significant disputes</p>	C	<p>DOF's notification to adjacent landowners of upcoming activities, open door policies, annual open houses, and State Forest Stewardship Committee meetings are</p>

<p>arise related to resolving grievances and/or providing fair compensation, the forest owner or manager follows appropriate dispute resolution procedures. At a minimum, the forest owner or manager maintains open communications, responds to grievances in a timely manner, demonstrates ongoing good faith efforts to resolve the grievances, and maintains records of legal suites and claims.</p>		<p>avenues for resolving grievances prior to legal action. Also, DOF's active boundary marking is evidence of an effort to outright avoid a common type of grievance.</p>
<p>4.5.c. Fair compensation or reasonable mitigation is provided to local people, communities or adjacent landowners for substantiated damage or loss of income caused by the landowner or manager.</p>	<p>C</p>	<p>There has been no substantiated damage or loss of income caused by DOF.</p>
<p>P5 Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.</p>		
<p>C5.1. Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.</p>	<p>C</p>	
<p>5.1.a. The forest owner or manager is financially able to implement core management activities, including all those environmental, social and operating costs, required to meet this Standard, and investment and reinvestment in forest management.</p>	<p>C</p>	<p>Each State Forest has its own established budget. The State Forest system has several funding sources, such as capital budget funds. DOF also has had some federal grants for invasive species control and HCP development. The State of Indiana OMB website has budget information on the DOF.</p> <p>The DOF biannual budget, however, consists of two main categories: 1) general funds (that come from general taxes); and 2) dedicated funds (income generate by Division of Forestry from timber harvests, permits, passes, etc.).</p> <p>General funds could be cut, but so far have not been.</p> <p>The dedicated fund goes into DOF's operating budget and a proportion of it must be spent in some specified ways. For example, some of this must be dedicated to preventative maintenance and capital projects. Additionally, 15% of timber sale money goes to counties to fund fire departments (50% of the funds received) and county projects. The dedicated fund experienced a decline from FY09 to FY10 due to the elimination of the mil tax from DOF's budget in property tax reform (\$13,526,393 down to \$8,756,456). In the past, up to 80% of the dedicated fund came from the 1 mill property taxes.</p> <p>As a proportion of the operating budget, the general fund made up 30% and the dedicated fund made 70% in FY09. The projection for FY12 is 44% of the operating budget coming from the general fund and 56% from the dedicated fund. The general fund's proportion of the operating budget has increased each year since FY09. DOF's budget has run a positive balance since FY09 and is projected to run another in FY12. However, the balance has declined each year since FY09 (but is still positive).</p>

		While the overall budget has declined since FY09, DOF maintains a projected 3% reserve in FY12's operating budget. Given the positive balances and stakeholder comments on DOF being able to implement core management activities required to fulfill this standard despite the overall reductions in budgets, SCS concludes that DOF is in exemplary conformance to this indicator. Furthermore, DOF is able to reinvest in infrastructure on state forests and maintain harvest levels within the AAC.
5.1.b. Responses to short-term financial factors are limited to levels that are consistent with fulfillment of this Standard.	C	Despite reduced budgets, DOF staff are able to implement core management activities to fulfill this standard.
C5.2. Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.	C	
5.2.a. Where forest products are harvested or sold, opportunities for forest product sales and services are given to local harvesters, value-added processing and manufacturing facilities, guiding services, and other operations that are able to offer services at competitive rates and levels of service.	C	Most timber harvesting activities are carried out by local logging contractors, who sometimes purchases sales of standing timber and market the material themselves. The group COC certificates managed by the State also allow members to market FSC-certified products for customers that demand them. Timber stand improvement (TSI) is frequently done by DOF staff, but is occasionally contracted to local service providers. As part of the State of Indiana's 'Buy Indiana' initiative, every state agency takes part in trying to achieve the goal that 90 cents of every dollar is spent on goods and services provided by businesses located in Indiana.
5.2.b. The forest owner or manager takes measures to optimize the use of harvested forest products and explores product diversification where appropriate and consistent with management objectives.	C	As DOF primarily sells standing timber, it is up to the purchaser to market the product. The group COC certificate managed by DOF certainly helps group members- many of whom are logging contractors- to market certified products. Common products include veneer, pallets, lumber, and furniture grade material.
5.2.c. On public lands where forest products are harvested and sold, some sales of forest products or contracts are scaled or structured to allow small business to bid competitively.	C	A range of sale sizes are carried out in an attempt to allow successful competition by different sized operations. Hardwood conversion of planted pine stands is undertaken when markets appear for these marginally desired species. Local mills are the purchasers of these sales. As part of the State of Indiana's 'Buy Indiana' initiative, every state agency takes part in trying to achieve the goal that 90 cents of every dollar is spent on goods and services provided by businesses located in Indiana.
C5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.	C	
5.3.a. Management practices are employed to minimize the loss and/or waste of harvested forest products.	C	Utilization observed on harvest sites during the assessment was good in that mostly branches, tops and forked stems were left on site. This is particularly good given that there is not a strong pulp market in the state.
5.3.b. Harvest practices are managed to protect residual trees and other forest resources, including: <ul style="list-style-type: none"> • soil compaction, rutting and erosion are minimized; • residual trees are not significantly damaged to 	C	BMPs, contract terms, and timber sale oversight by field personnel collectively result in operations taking place well within reasonable limits for residual stand damage. Because many high value trees are utilized as veneer, foresters are sensitive to harvesting damage

<p>the extent that health, growth, or values are noticeably affected;</p> <ul style="list-style-type: none"> • damage to NTFPs is minimized during management activities; and • techniques and equipment that minimize impacts to vegetation, soil, and water are used whenever feasible. 		<p>that would preclude this use if it occurred.</p> <p>Contract loggers make consistent use of slash to avoid rutting and erosion in problem areas. They also avoid running equipment during or after rain events. While there are no significant commercial NTFPs in southern Indiana, residual sugar maples are included in stand damage avoidance measures. Felling and slash dispersal techniques overall help to minimize damage to soil and water resources.</p>
<p>C5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</p>	C	
<p>5.4.a. The forest owner or manager demonstrates knowledge of their operation's effect on the local economy as it relates to existing and potential markets for a wide variety of timber and non-timber forest products and services.</p>	C	<p>Considering DOF's efforts to manage for outdoor recreation, the production of timber products, wildlife habitat, watershed health, and biodiversity, there is excellent conformance with this indicator. Specific observations include:</p> <ul style="list-style-type: none"> • All areas visited sold a broad range of products including veneer, sawtimber, pallets, and furniture grade; • The group COC certificate has many members and continues to grow, indicating steady demand for certified products; • Forest recreation opportunities on DOF administered forests are exceptional and certain activities, such as horseback riding, are only available on DNR or private lands.
<p>5.4.b The forest owner or manager strives to diversify the economic use of the forest according to Indicator 5.4.a.</p>	C	<p>Recreation of all kinds is available. The forest products industry in the state has been responsive to the State's COC group certificates.</p>
<p>C5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.</p>	C	
<p>5.5.a. In developing and implementing activities on the FMU, the forest owner or manager identifies, defines and implements appropriate measures for maintaining and/or enhancing forest services and resources that serve public values, including municipal watersheds, fisheries, carbon storage and sequestration, recreation and tourism.</p>	C	<p>DoF policies are clearly oriented towards maintaining and enhancing the full suite of forest services and resources such as watersheds and fisheries. The careful attention to BMP's is an example of efforts to maintain forest services. See HEE report (8B HEE_Annual_report_2006-2010) for an analysis of forest services, which include recreation, ecosystem services, etc.</p>
<p>5.5.b The forest owner or manager uses the information from Indicator 5.5.a to implement appropriate measures for maintaining and/or enhancing these services and resources.</p>	C	<p>The designation and respect of protected areas, and the implementation of BMPs is consistent with maintaining or enhancing watersheds, fisheries, carbon, recreation, and tourism. While some stakeholders express concern over harvesting in high recreation areas,</p>
<p>C5.6. The rate of harvest of forest products shall not exceed levels which can be permanently sustained.</p>	C	
<p>5.6.a. In FMUs where products are being harvested, the landowner or manager calculates the sustained yield harvest level for each sustained yield planning unit, and provides clear rationale for determining the size and layout of the planning unit. The sustained yield harvest level calculation is documented in the Management Plan.</p>	C	<p>Calculation of the sustainability of harvests is derived from the 2005 system-wide inventory, growth rates based on increment analysis, site index models, and ground-truthing these estimates with actual growth data from FIA and CFI data for two state forests. FIA and CFI data are analyzed to determine growth rates for particular sites and acreage of forest types. The</p>

<p>The sustained yield harvest level calculation for each planning unit is based on:</p> <ul style="list-style-type: none"> • documented growth rates for particular sites, and/or acreage of forest types, age-classes and species distributions; • mortality and decay and other factors that affect net growth; • areas reserved from harvest or subject to harvest restrictions to meet other management goals; • silvicultural practices that will be employed on the FMU; • management objectives and desired future conditions. <p>The calculation is made by considering the effects of repeated prescribed harvests on the product/species and its ecosystem, as well as planned management treatments and projections of subsequent regrowth beyond single rotation and multiple re-entries.</p>		<p>harvest rate takes into account a mortality factor due to disturbance and disease. The annual allowable harvest takes into account production areas and excludes reserves and protected areas. Both even- and uneven-aged systems are employed on the FMU and the inventory system is used to guide the number of entries before a regeneration harvest occurs. DOF's annual harvest rate is 14 MMBF, which is a significant increase from the 1994-2003 rate of 3.4 MMBF. Based on a 2005 system-wide inventory, this approx 4 time increase in harvest levels is still only harvesting ~60% of the growth (estimated to be 24 MMBF).</p> <p>No models are used to determine allowable harvest. Allowable harvest is based on actual system wide forest inventory. Continuous Forest Inventory (CFI) Summary (See attachment: 5A draft_cfi_property_systemwide_yr3.pdf).</p> <ul style="list-style-type: none"> • Harvest Planned (See attachment: 7B Timber harvest targets 2010-2012_notice to field.pdf) • Harvest Totals with Targets (See attachment: 7B 2009-2010 State Forest Timber Sales Spreadsheet with Targets.pdf) • Timber Property Report (7B 2009-2010 State Forest Timber Sale Property Reports.pdf)
<p>5.6.b. Average annual harvest levels, over rolling periods of no more than 10 years, do not exceed the calculated sustained yield harvest level.</p>	C	<p>DOF uses 4 year rolling period to ensure that it does not exceed the calculate sustained yield harvest rate. Harvest records for the sites visited show that DOF does not exceed the calculated harvest rate. See documented cited in 5.6.a.</p>
<p>5.6.c. Rates and methods of timber harvest lead to achieving desired conditions, and improve or maintain health and quality across the FMU. Overstocked stands and stands that have been depleted or rendered to be below productive potential due to natural events, past management, or lack of management, are returned to desired stocking levels and composition at the earliest practicable time as justified in management objectives.</p>	C	<p>The combination of even- and uneven-aged management ensures that the FMU includes mixed age classes and species, and that regeneration harvests are effective in securing the next age class of oak-hickory type. The goal of maintaining 10% of the FMU in late seral conditions in consistent with some site characteristics, particularly on more mesic to wet-mesic sites with few oak-hickory species and associates.</p> <p>Because DOF is proposing to cut less than 70% of estimated growth, there is room to allow additional salvage operations without cutting beyond sustainable levels. Actual harvesting levels will be monitored and compared with projections through time. Cutting levels can be adjusted accordingly.</p>
<p>5.6.d. For NTFPs, calculation of quantitative sustained yield harvest levels is required only in cases where products are harvested in significant commercial operations or where traditional or customary use rights may be impacted by such harvests. In other situations, the forest owner or manager utilizes available information, and new information that can be reasonably gathered, to set harvesting levels that will not result in a depletion of the non-timber growing stocks or other adverse effects to the forest ecosystem.</p>	NA	<p>DOF does not have any significant commercially harvested NTFPs.</p>

P6 Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.		
C6.1. Assessments of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.	C	
6.1.a. Using the results of credible scientific analysis, best available information (including relevant databases), and local knowledge and experience, an assessment of conditions on the FMU is completed and includes: 1) Forest community types and development, size class and/or successional stages, and associated natural disturbance regimes ; 2) Rare, Threatened and Endangered (RTE) species and rare ecological communities (including plant communities); 3) Other habitats and species of management concern; 4) Water resources and associated riparian habitats and hydrologic functions; 5) Soil resources ; and 6) Historic conditions on the FMU related to forest community types and development, size class and/or successional stages, and a broad comparison of historic and current conditions.	C	DOF's Environmental Assessment on the increased emphasis on management and sustainability of oak-hickory communities on the Indiana State Forest System 2008 documents items 1-6 for that community type, which is the dominant community type found in the State Forest System.
6.1.b. Prior to commencing site-disturbing activities, the forest owner or manager assesses and documents the potential short and long-term impacts of planned management activities on elements 1-5 listed in Criterion 6.1.a. The assessment must incorporate the best available information , drawing from scientific literature and experts. The impact assessment will at minimum include identifying resources that may be impacted by management (e.g., streams, habitats of management concern, soil nutrients). Additional detail (i.e., detailed description or quantification of impacts) will vary depending on the uniqueness of the resource, potential risks, and steps that will be taken to avoid and minimize risks.	C	Short term site impacts are addressed when writing the resource management plan. The Indiana Bat HCP process was stalled and there has been some concern from stakeholders and USFWS staff. Indiana DOF intends to improve the HCP and has contracted a project "Habitat conservation plan development and implementation for the Indiana Bat on Indiana State Forests" with Purdue University. This project will develop a habitat suitability model for Indiana Bat based on remotely sensed habitat data. In the meantime, DOF has interim bat conservation guidelines that it has communicated to USFWS stakeholders.
6.1.c. Using the findings of the impact assessment (Indicator 6.1.b), management approaches and field prescriptions are developed and implemented that: 1) avoid or minimize negative short-term and long-term impacts; and, 2) maintain and/or enhance the long-term ecological viability of the forest.	C	Site level management guidelines have been developed for a number of T and E species (Indiana Bat, Timber Rattlesnake). BMP's protect soil resources and riparian habitat.
6.1.d. On public lands, assessments developed in Indicator 6.1.a and management approaches developed in Indicator 6.1.c are made available to the public in draft form for review and comment prior to finalization. Final assessments are also made available.	C	All management planning documents (drafts and final versions), including environmental impact studies, the Wildlife action plan, and other assessments are made completely available to the public online. The public can also access publications and data on the website or upon request.

		Once DOF submits an updated HCP for bat conservation, it is required to undergo public review.
C 6.2. Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping, and collecting shall be controlled.	C	
6.2.a. If there is a likely presence of RTE species as identified in Indicator 6.1.a then either a field survey to verify the species' presence or absence is conducted prior to site-disturbing management activities, or management occurs with the assumption that potential RTE species are present. Surveys are conducted by biologists with the appropriate expertise in the species of interest and with appropriate qualifications to conduct the surveys. If a species is determined to be present, its location should be reported to the manager of the appropriate database.	C	DOF has a program to protect threatened and endangered species. Training is periodically provided on endangered species identification and management, most notably for Indiana bat habitat. There are 79 state-listed Threatened and Endangered (T and E) animal species (in Indiana the Indiana Bat is the only endangered designation). DOF participates in state and federal programs to research and protect T and E species. For example, DOF is participating in a federal review of invertebrate species. DOF actively uses the Division of Nature Preserves' Heritage Database to screen for T and E species in management areas. If a species is detected in a database query, DOF has its own wildlife biologist to carry out surveys and devise protection plans. T and E species locations are identified as part of the process of writing the resource management guide prior to management activities.
6.2.b. When RTE species are present or assumed to be present, modifications in management are made in order to maintain, restore or enhance the extent, quality and viability of the species and their habitats. Conservation zones and/or protected areas are established for RTE species, including those S3 species that are considered rare, where they are necessary to maintain or improve the short and long-term viability of the species. Conservation measures are based on relevant science, guidelines and/or consultation with relevant, independent experts as necessary to achieve the conservation goal of the Indicator.		When T and E species are known to occur (by querying the Natural Heritage Data), staff will determine appropriate steps to protect the species. These steps may include a consultation with the biologist or ecologist or written species- specific management plans to accommodate individual species requirements. Staff consult Naturereserve web site to search for management guidelines for T and E species.
6.2.c. For medium and large public forests (e.g. state forests), forest management plans and operations are designed to meet species' recovery goals, as well as landscape level biodiversity conservation goals.	C	DOF follows its interim guidelines on the conservation of the Indiana Bat. These guidelines were developed by its biologist in consultation with federal agencies. Eventually, DOF's intent is for an updated HCP to address Indiana Bat conservation.
6.2.d. Within the capacity of the forest owner or manager, hunting, fishing, trapping, collecting and other activities are controlled to avoid the risk of impacts to vulnerable species and communities (See Criterion 1.5).	C	DOF field staff regularly patrol the FMU to detect unauthorized activities and work with interested user groups to avoid adverse impacts to flora, fauna, and soil resources. For example, SCS observed signage at district offices regarding ginseng harvesting. SCS also noted that district offices were working with horse rider groups on maintaining established trails.
C6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the	C	

productivity of the forest ecosystem.		
C6.3.a. Landscape-scale indicators	C	
6.3.a.1. The forest owner or manager maintains, enhances, and/or restores under-represented successional stages in the FMU that would naturally occur on the types of sites found on the FMU. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is managed to enhance and/or restore old growth characteristics.	NC	DOF has a goal to maintain 10% of the forest in the underrepresented early successional stage. Nature Reserves are being identified and protected on DOF property. DOF strategic plan is to maintain 10% of the forest in an older forest condition. The locations and formal identification of these sites has not been completed. See CAR 2011.4
6.3.a.2. When a rare ecological community is present, modifications are made in both the management plan and its implementation in order to maintain, restore or enhance the viability of the community. Based on the vulnerability of the existing community, conservation zones and/or protected areas are established where warranted.	C	Open barrens habitat is managed to maintain the open condition with the use of fire. DOF has a policy to allow management to occur in rare ecological communities if it maintains or enhances the viability of the community.
6.3.a.3. When they are present, management maintains the area, structure, composition, and processes of all Type 1 and Type 2 old growth . Type 1 and 2 old growth are also protected and buffered as necessary with conservation zones, unless an alternative plan is developed that provides greater overall protection of old growth values. Type 1 Old Growth is protected from harvesting and road construction. Type 1 old growth is also protected from other timber management activities, except as needed to maintain the ecological values associated with the stand, including old growth attributes (e.g., remove exotic species, conduct controlled burning, and thinning from below in dry forest types when and where restoration is appropriate). Type 2 Old Growth is protected from harvesting to the extent necessary to maintain the area, structures, and functions of the stand. Timber harvest in Type 2 old growth must maintain old growth structures, functions, and components including individual trees that function as refugia (see Indicator 6.3.g). On public lands, old growth is protected from harvesting, as well as from other timber management activities, except if needed to maintain the values associated with the stand (e.g., remove exotic species, conduct controlled burning, and thinning from below in forest types when and where restoration is appropriate). On American Indian lands, timber harvest may be permitted in Type 1 and Type 2 old growth in recognition of their sovereignty and unique ownership. Timber harvest is permitted in situations where: <ol style="list-style-type: none"> 1. Old growth forests comprise a significant portion of the tribal ownership. 2. A history of forest stewardship by the tribe exists. 3. High Conservation Value Forest attributes are maintained. 4. Old-growth structures are maintained. 	NC	DOF has not formally identified the locations of Type 1 and 2 old growth forests under the revised definitions under the FSC-US standard. See CAR 2011.4 .

<p>5. Conservation zones representative of old growth stands are established.</p> <p>6. Landscape level considerations are addressed.</p> <p>7. Rare species are protected.</p>		
<p>6.3.b. To the extent feasible within the size of the ownership, particularly on larger ownerships (generally tens of thousands or more acres), management maintains, enhances, or restores habitat conditions suitable for well-distributed populations of animal species that are characteristic of forest ecosystems within the landscape.</p>	C	<p>IDNR DIVISION OF FORESTRY STRATEGIC PLAN 2008-2013 has a goal to provide a range of forest habitats that will provide suitable conditions for well-distributed animal populations. See also comments on late and early seral habitat in 6.3.a.1.</p>
<p>6.3.c. Management maintains, enhances and/or restores the plant and wildlife habitat of Riparian Management Zones (RMZs) to provide:</p> <ul style="list-style-type: none"> a) habitat for aquatic species that breed in surrounding uplands; b) habitat for predominantly terrestrial species that breed in adjacent aquatic habitats; c) habitat for species that use riparian areas for feeding, cover, and travel; d) habitat for plant species associated with riparian areas; and, e) stream shading and inputs of wood and leaf litter into the adjacent aquatic ecosystem. 	C	<p><u>Indiana Logging and Forestry Best Management Practices: BMP Field Guide (BMP Field Guide)</u> is used by field foresters to guide the protection of RMZs. The buffer zones established in RMZs ensure upland-lowland connectivity (a, b, and c) and maintenance of riparian vegetation and soils (d and e). Field visits in 2011 confirmed that habitat surrounding man-made watering holes is being protected during harvest with BMPs.</p>
<p>Stand-scale Indicators</p> <p>6.3.d Management practices maintain or enhance plant species composition, distribution and frequency of occurrence similar to those that would naturally occur on the site.</p>	C	<p>Indiana DOF has an increased emphasis on management and sustainability of oak-hickory communities due to their decline in the landscape (Indiana State Forests Environmental Assessment 2008).</p> <p>DOF uses fire to exclude potential species competition from later seral species (beech/maple) on sites managed for oak-hickory. Prescribed fire is consistent with historic natural disturbance regimes implemented by Native Americans.</p> <p>Review of resource management guides on sites visited in 2011 state indicates that it is difficult to control maple succession on the better mesic sites even though the management plan is to provide oak-hickory on the site or micro-sites within the stand (north facing slopes).</p>
<p>6.3.e. When planting is required, a local source of known provenance is used when available and when the local source is equivalent in terms of quality, price and productivity. The use of non-local sources shall be justified, such as in situations where other management objectives (e.g. disease resistance or adapting to climate change) are best served by non-local sources. Native species suited to the site are normally selected for regeneration.</p>	C	<p>Seedlings planted in the forest are grown in the local nursery. According to DOF, the trees planted on a Riparian Oxbow site were seedlings raised by the Indiana State tree nursery using local seed sources consistent with the Standards. This oxbow was likely cleared for crop production and regenerated to early successional and soft-mast species (mostly Sycamore and Silver maple, respectively). To re-establish naturally occurring heavy seeded species on this site requires pro-active efforts such as assisted regeneration and the creation of canopy gaps.</p> <p>DOF provided additional information after the evaluation to show that the planting of heavier-seeded species was a part of planned management activities.</p>
<p>6.3.f. Management maintains, enhances, or restores habitat components and associated stand structures, in</p>	C	<p>DOF has an excellent guide "Management guidelines for compartment-level wildlife habitat features" that</p>

<p>abundance and distribution that could be expected from naturally occurring processes. These components include:</p> <p>a) large live trees, live trees with decay or declining health, snags, and well-distributed coarse down and dead woody material. Legacy trees where present are not harvested; and</p> <p>b) vertical and horizontal complexity.</p> <p>Trees selected for retention are generally representative of the dominant species found on the site.</p>		<p>field foresters use to maintain or enhance site-level habitat components, such as large live trees, declining trees, and snags.</p> <p>The October 20, 2008 version has been updated to provide a definition and criteria for protecting legacy trees.</p> <p>Indiana Bat retention guidelines are being used by field foresters (confirmed from resource management guides) and interviews with field foresters. These include provisions for vertical and horizontal complexity, such as opening the south side of trees designated as hibernacula to sunlight.</p>
<p>6.3.g.1 In the Southeast, Appalachia, Ozark-Ouachita, Mississippi Alluvial Valley, and Pacific Coast Regions, when even-aged systems are employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit as described in Appendix C for the applicable region.</p> <p>In the Lake States Northeast, Rocky Mountain and Southwest Regions, when even-aged silvicultural systems are employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit in a proportion and configuration that is consistent with the characteristic natural disturbance regime unless retention at a lower level is necessary for the purposes of restoration or rehabilitation. See Appendix C for additional regional requirements and guidance.</p>	C	<p>DOF primarily employs uneven-aged management practices, such as individual tree selection and group selection. However, DOF practices even-aged management on an experimental basis. These are well-documented in the HEE report.</p> <p>Even-aged management practices include clearcuts and shelterwood systems. Although no even-aged harvests were reviewed during the 2011 recertification evaluation, past visits have indicated retention of live trees and other native vegetation within the harvest unit in a proportion and configuration consistent with the natural disturbance regime.</p>
<p>6.3.g.2 Under very limited situations, the landowner or manager has the option to develop a qualified plan to allow minor departure from the opening size limits described in Indicator 6.3.g.1. A qualified plan:</p> <ol style="list-style-type: none"> 1. Is developed by qualified experts in ecological and/or related fields (wildlife biology, hydrology, landscape ecology, forestry/silviculture). 2. Is based on the totality of the best available information including peer-reviewed science regarding natural disturbance regimes for the FMU. 3. Is spatially and temporally explicit and includes maps of proposed openings or areas. 4. Demonstrates that the variations will result in equal or greater benefit to wildlife, water quality, and other values compared to the normal opening size limits, including for sensitive and rare species. 5. Is reviewed by independent experts in wildlife biology, hydrology, and landscape ecology, to confirm the preceding findings. 	NA	<p>There are no even-aged management restrictions in the Lake States/ Central Hardwood region.</p>
<p>6.3.h. The forest owner or manager assesses the risk of, prioritizes, and, as warranted, develops and implements a strategy to prevent or control invasive species, including:</p> <ol style="list-style-type: none"> 1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems; 2. implementation of management practices that minimize the risk of invasive establishment, 	NC	<p>DOF documents presence and locations of invasive species during the common stand assessment in the "Communities" section. DOF has an active invasive species eradication and control program. The 2011 audit team saw locations of Phragmites and Ailanthus control. The evidence examined (documentation and stakeholder interviews cited below) shows that DOF completes parts 1 and 3 of this indicator.</p>

<p>growth, and spread;</p> <p>3. eradication or control of established invasive populations when feasible: and,</p> <p>4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species.</p>		<p>Evidence reviewed:</p> <ul style="list-style-type: none"> • CFI report – Table 7. Area covered with invasive plants by invasive plant species and forested live tree basal area, State Forest Properties, 2008-10. • Forest Properties, 2008-2010. • Invasive species review during strategic plan • Procedures manual • Management guides – on website – very brief mention, usually in the common stand assessment “Communities” section. • DOF does not do 2 and 4—see Stakeholder comment – DOF would be willing to talk with this stakeholder on control of stiltgrass options. <p>See CAR 2011.5.</p>
<p>6.3.i. In applicable situations, the forest owner or manager identifies and applies site-specific fuels management practices, based on: (1) natural fire regimes, (2) risk of wildfire, (3) potential economic losses, (4) public safety, and (5) applicable laws and regulations.</p>	C	<p>DOF provided the audit team with well written and well planned site-level fire plans that are primarily conducted in oak-hickory understories to control competing species. This regime mimics natural periodic ground fires that historically occurred in this habitat type.</p>
<p>C6.4. Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.</p>	C	
<p>6.4.a. The forest owner or manager documents the ecosystems that would naturally exist on the FMU, and assesses the adequacy of their representation and protection in the <i>landscape</i> (see Criterion 7.1). The assessment for medium and large forests include some or all of the following: a) <i>GAP analyses</i>; b) collaboration with state natural heritage programs and other public agencies; c) regional, landscape, and watershed planning efforts; d) collaboration with universities and/or local conservation groups.</p> <p>For an area that is not located on the FMU to qualify as a Representative Sample Area (RSA), it should be under permanent protection in its natural state.</p>	C	<p>DOF completed the GAP analysis in 2009 and identified the underrepresented or missing ecosystem types. Areas considered in the GAP assessment included protected areas on lands managed by Army Corp of Engineers, Indiana DNR’s Nature Preserves, and other agencies.</p>
<p>6.4.b. Where existing areas within the landscape, but external to the FMU, are not of adequate protection, size, and configuration to serve as representative samples of existing ecosystems, forest owners or managers, whose properties are conducive to the establishment of such areas, designate ecologically viable RSAs to serve these purposes.</p> <p>Large FMUs are generally expected to establish RSAs of purpose 2 and 3 within the FMU.</p>	NC	<p>See CAR 2011.6.</p>
<p>6.4.c. Management activities within RSAs are limited to low impact activities compatible with the protected RSA objectives, except under the following circumstances:</p> <p style="padding-left: 40px;">a) harvesting activities only where they are necessary to restore or create conditions to meet the objectives of the protected RSA, or to</p>	C	<p>DOF has a policy to limit management activities in RSA’s to those that will improve the desired ecological condition of the stand.</p> <p>DOF completes prescribed burns in barrens habitat to maintain the open ecological characteristics of this RSA type.</p>

mitigate conditions that interfere with achieving the RSA objectives; or b) road-building only where it is documented that it will contribute to minimizing the overall environmental impacts within the FMU and will not jeopardize the purpose for which the RSA was designated.		A visit to a mesic floodplain RSA in Jackson-Washington State Forest found that a timber harvest had been completed that removed non-native species (pines) from the site.
6.4.d. The RSA assessment (Indicator 6.4.a) shall be periodically reviewed and if necessary updated (at a minimum every 10 years) in order to determine if the need for RSAs has changed; the designation of RSAs (Indicator 6.4.b) is revised accordingly.	C	10 years have not passed since the last RSA assessment. The CAR that DOF has received for other indicators of this criterion are sufficient to ensure that DOF's meets conformance to this indicator.
6.4.e. Managers of large, contiguous public forests establish and maintain a network of representative protected areas sufficient in size to maintain species dependent on interior core habitats.	NC	See CAR 2011.6.
C6.5. Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.	C	
6.5.a. The forest owner or manager has written guidelines outlining conformance with the Indicators of this Criterion.	C	The State of Indiana BMP manual and timber harvest contracts contain information that details the specification for conformance to this criterion. Written guidelines are also included in the State Forest Procedures Manual (http://www.in.gov/dnr/forestry/5197.htm). See OBS 2011.7
6.5.b. Forest operations meet or exceed Best Management Practices (BMPs) that address components of the Criterion where the operation takes place.	C	DOF's implementation of BMPs meets or exceeds the components of this criterion on timber harvest operations and trail management. See indicators for more information.
6.5.c. Management activities including site preparation, harvest prescriptions, techniques, timing, and equipment are selected and used to protect soil and water resources and to avoid erosion, landslides, and significant soil disturbance. Logging and other activities that significantly increase the risk of landslides are excluded in areas where risk of landslides is high. The following actions are addressed: <ul style="list-style-type: none"> • Slash is concentrated only as much as necessary to achieve the goals of site preparation and the reduction of fuels to moderate or low levels of fire hazard. • Disturbance of topsoil is limited to the minimum necessary to achieve successful regeneration of species native to the site. • Rutting and compaction is minimized. • Soil erosion is not accelerated. • Burning is only done when consistent with natural disturbance regimes. • Natural ground cover disturbance is minimized to the extent necessary to achieve regeneration objectives. • Whole tree harvesting on any site over multiple rotations is only done when research indicates soil productivity will not be harmed. • Low impact equipment and technologies is used 	C	Whole tree skidding is rarely, if at all, practiced. Thus slash is left where trees are felled. Slash may be used to implement drainage BMPs (i.e., for use as riprap, corduroy, etc.). There was little disturbance to topsoil as most operations had both cable and grapple skidding teams to haul logs. In this manner, operations could be kept on main skid trails and reduce to need to make more secondary trails. State contracts contain rutting specifications, which contractors observed during the evaluation were meeting. Water bars, broad-based dips, and slash are used to control soil erosion. DOF uses prescribed burns to promote oak regeneration, which is consistent with historical natural disturbance regimes. Ground cover disturbance is limited to skid trails and thus is minimized. Whole tree harvesting is rarely practiced. Both grapple and cable skidders are the most widely used and available equipment to haul logs. Occasionally animal teams may be used.

where appropriate.		
<p>6.5.d. The transportation system, including design and placement of permanent and temporary haul roads, skid trails, recreational trails, water crossings and landings, is designed, constructed, maintained, and/or reconstructed to reduce short and long-term environmental impacts, habitat fragmentation, soil and water disturbance and cumulative adverse effects, while allowing for customary uses and use rights. This includes:</p> <ul style="list-style-type: none"> • access to all roads and trails (temporary and permanent), including recreational trails, and off-road travel, is controlled, as possible, to minimize ecological impacts; • road density is minimized; • erosion is minimized; • sediment discharge to streams is minimized; • there is free upstream and downstream passage for aquatic organisms; • impacts of transportation systems on wildlife habitat and migration corridors are minimized; • area converted to roads, landings and skid trails is minimized; • habitat fragmentation is minimized; • unneeded roads are closed and rehabilitated. 	C	<p>Access to trails and roads is controlled via gated access wherever possible and consistent with management objectives. Unauthorized horse trails involves a delicate balance of stakeholder consultation and upkeep of authorized trails as DOF lands are the only public lands where horseback riding is authorized. Unauthorized trails, however, are being managed to prevent their density from expanding.</p> <p>DOF maintains a permanent network of roads to use to conducting management activities. Skid trails are reused where possible and secondary trail creation is avoided through use of cable and grapple skidders.</p> <p>Use of water bars and broad-based dips helps to reduce sediment discharge directly into streams. Stream crossings are designed to allow free passage of aquatic organisms. As the road network is rarely modified, impacts to wildlife and corridors are minimized. DOF plans skid trails and landings keeping in mind future management activities. DOF has road closure BMPs and other transportation system BMPs described in the BMP and procedures manuals.</p> <p>Access is covered in section L of the procedures manual (“Forest Access”). The rest of the transportation system BMPs are documented in the “Forest Roads” section of the BMPs (http://www.in.gov/dnr/forestry/2868.htm).</p>
<p>6.5.e.1. In consultation with appropriate expertise, the forest owner or manager implements written Streamside Management Zone (SMZ) buffer management guidelines that are adequate for preventing environmental impact, and include protecting and restoring water quality, hydrologic conditions in rivers and stream corridors, wetlands, vernal pools, seeps and springs, lake and pond shorelines, and other hydrologically sensitive areas. The guidelines include vegetative buffer widths and protection measures that are acceptable within those buffers.</p> <p>In the Appalachia, Ozark-Ouachita, Southeast, Mississippi Alluvial Valley, Southwest, Rocky Mountain, and Pacific Coast regions, there are requirements for minimum SMZ widths and explicit limitations on the activities that can occur within those SMZs. These are outlined as requirements in Appendix E.</p>	C	<p>As the Lake States/ Central Hardwood region has no recognized FSC regional SMZ buffer requirements, DOF defaults to SMZ buffer width established in the BMP manual and, where applicable, any forest-specific restrictions established through county or township ordinances. All harvests observed in the recertification evaluation meet these SMZ requirements.</p> <p>See OBS 2011.7.</p>
<p>6.5.e.2. Minor variations from the stated minimum SMZ widths and layout for specific stream segments, wetlands and other water bodies are permitted in limited circumstances, provided the forest owner or manager demonstrates that the alternative configuration maintains the overall extent of the buffers and provides equivalent or greater environmental protection than FSC-US regional requirements for those stream segments, water quality, and aquatic species, based on site-specific conditions and the best available information. The forest owner or manager develops a written set of supporting information</p>	NA	<p>The SCS team uncovered no variations from minimum SMZ widths established in the recommended BMPs.</p>

including a description of the riparian habitats and species addressed in the alternative configuration. The CB must verify that the variations meet these requirements, based on the input of an independent expert in aquatic ecology or closely related field.		
6.5.f. Stream and wetland crossings are avoided when possible. Unavoidable crossings are located and constructed to minimize impacts on water quality, hydrology, and fragmentation of aquatic habitat . Crossings do not impede the movement of aquatic species. Temporary crossings are restored to original hydrological conditions when operations are finished.	C	Stream crossings on DOF meet BMPs. BMPs include avoiding crossings when possible and to install appropriate BMPs based on stream channel size and frequency of peak flow events. Crossings observed on DOF allowed the free movement of aquatic species. Temporary crossings are restored and debris removed to allow flow.
6.5.g. Recreation use on the FMU is managed to avoid negative impacts to soils, water, plants, wildlife and wildlife habitats.	C	DOF allows several kinds of recreation, including hiking, camping, hunting, and horseback riding. DOF has postings near state forest offices on what types of activities require permits and which do not. DOF experiences issues with unauthorized horse trails, which it attempts to resolve through communication with riders and upgrades to authorized trails.
6.5.h. Grazing by domesticated animals is controlled to protect in-stream habitats and water quality, the species composition and viability of the riparian vegetation, and the banks of the stream channel from erosion.	C	No grazing by domesticated animals is permitted on DOF forestland. No evidence of grazing was undercover during the recertification assessment.
C6.6. Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.	C	
6.6.a. No products on the FSC list of Highly Hazardous Pesticides are used (see FSC-POL-30-001 EN FSC Pesticides policy 2005 and associated documents).	C	The SCS audit team received a complete list of chemicals in use on DOF and none are on the FSC-prohibited list. See OBS 2011.17
6.6.b. All toxicants used to control pests and competing vegetation, including rodenticides, insecticides, herbicides, and fungicides are used only when and where non-chemical management practices are: a) not available; b) prohibitively expensive, taking into account overall environmental and social costs, risks and benefits; c) the only effective means for controlling invasive and exotic species; or d) result in less environmental damage than non-chemical alternatives (e.g., top soil disturbance, loss of soil litter and down wood debris). If chemicals are used, the forest owner or manager uses the least environmentally damaging formulation and application method practical. Written strategies are developed and implemented that justify the use of chemical pesticides. Whenever feasible, an eventual phase-out of chemical use is included in the strategy. The written strategy shall include an analysis of options for, and the effects of, various chemical and non-	NC	Several properties have local chemical use guidelines, such as Brown County. See CAR 2011.8.

chemical pest control strategies, with the goal of reducing or eliminating chemical use.		
6.6.c. Chemicals and application methods are selected to minimize risk to non-target species and sites. When considering the choice between aerial and ground application, the forest owner or manager evaluates the comparative risk to non-target species and sites, the comparative risk of worker exposure, and the overall amount and type of chemicals required.	C	No aerial application occurs on DOF. All application is by hand spray. The audit team examined the "Brown County Native Woodlands Projects," which includes a list of common invasive plants, and recommended chemical mixes and application methods depending on the time of year for each invasive species. State workers who apply chemicals are licensed applicators and are instructed to follow the label guidelines for each chemical. MSDS are also available for each chemical, which address the potential risks. Workers must record the amount and type of all chemicals. The amount of chemicals applied on each state forest is reported and summarized at the central office on an annual basis.
6.6.d. Whenever chemicals are used, a written prescription is prepared that describes the site-specific hazards and environmental risks, and the precautions that workers will employ to avoid or minimize those hazards and risks, and includes a map of the treatment area. Chemicals are applied only by workers who have received proper training in application methods and safety. They are made aware of the risks, wear proper safety equipment, and are trained to minimize environmental impacts on non-target species and sites.	NC	DOF demonstrated a chemical use sheet from the Brown County Project. Other documents examined, such as a description for Martin, are generalist in nature and do not identify or reference site-specific hazards and environmental risks. Most state field workers have a current State of Indiana Applicator License. Staff follow MSDS and chemical label requirements. See CAR 2011.8.
6.6.e. If chemicals are used, the effects are monitored and the results are used for adaptive management. Records are kept of pest occurrences, control measures, and incidences of worker exposure to chemicals.	NC	DOF documents applications in a chemical use log. DOF must document chemical exposure as required by law. The write-up in management guide is a record of a pest occurrence. See CAR 2011.8.
C6.7. Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.	C	
6.7.a. The forest owner or manager, and employees and contractors, have the equipment and training necessary to respond to hazardous spills	C	Refer to State of Indiana Laws at the Department of Environmental Management. Contracts contain reference to compliance with state and federal laws, which implies spill procedures. Contractors interviewed understood spill response procedures and were able to demonstrate spill kits on site.
6.7.b. In the event of a hazardous material spill, the forest owner or manager immediately contains the material and engages qualified personnel to perform the appropriate removal and remediation, as required by applicable law and regulations.	C	One spill had to be reported two years ago. Contractors were required to clean and report the spill. See 6.7.a.
6.7.c. Hazardous materials and fuels are stored in leak-proof containers in designated storage areas, that are outside of riparian management zones and away from other ecological sensitive features, until they are used or transported to an approved off-site location for disposal. There is no evidence of persistent fluid leaks from equipment or of recent groundwater or surface water contamination.	C	Gas and lubricant containers were stored in a central location, typically near landing areas well away from riparian zones and other sensitive features. SCS auditors observed idle equipment with no evidence of persistent leaks.
C6.8. Use of biological control agents shall be documented, minimized, monitored, and strictly	C	

controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.		
6.8.a. Use of biological control agents are used only as part of a pest management strategy for the control of invasive plants, pathogens , insects, or other animals when other pest control methods are ineffective, or are expected to be ineffective. Such use is contingent upon peer-reviewed scientific evidence that the agents in question are non-invasive and are safe for native species.	C	Biological control agents are no longer used on the forest. There has been no recent use of biological control on State Forest properties. In the 1990s there was use of <i>Galerucella</i> spp. beetles for the control of purple loosestrife on Yellowwood Lake, Yellowwood State Forest.
6.8.b. If biological control agents are used, they are applied by trained workers using proper equipment.	C	See 6.8.a.
6.8.c. If biological control agents are used, their use shall be documented, monitored and strictly controlled in accordance with state and national laws and internationally accepted scientific protocols. A written plan will be developed and implemented justifying such use, describing the risks, specifying the precautions workers will employ to avoid or minimize such risks, and describing how potential impacts will be monitored.	C	See 6.8.a.
6.8.d. Genetically Modified Organisms (GMOs) are not used for any purpose.	C	There is no use of GMOs on the FMU.
C6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.	C	
6.9.a. The use of exotic species is contingent on the availability of credible scientific data indicating that any such species is non-invasive and its application does not pose a risk to native biodiversity.	C	DOF has use of seed mixes detailed in its procedures manual and application in the BMP manual. DOF generally uses winter wheat or oats depending on the season (coldness) for closeouts. However, with the increased incidence of Japanese Stiltgrass (exotic) on some State Forests, DOF has started using fescues (exotic), especially the shorter varieties as they are more competitive with the Stiltgrass. There has been some research to show that Kentucky 31 fescue can crowd out stiltgrass. Winter wheat and oats application works well the first growing season, however as the seed does not cover the ground completely they just tend to make a very good cover for stiltgrass to seed in. The Division of Nature Preserve ecologists, Mike Homoya and Tom Swinford, would rather have the tradeoff for fescue persistence than the spread of more stiltgrass.
6.9.b. If exotic species are used, their provenance and the location of their use are documented, and their ecological effects are actively monitored.	NC	See CAR 2011.9.
6.9.c. The forest owner or manager shall take timely action to curtail or significantly reduce any adverse impacts resulting from their use of exotic species	C	As the species used to re-seed landings and other exposed areas, they tend to remain at the planted location. Like many state agencies, DOF discontinued the use of some seed mixes once they were proven to be invasive.
C6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion: a) Entails a very limited portion of the forest management unit; and b) Does not occur on High Conservation Value Forest areas; and c) Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.	C	

<p>6.10.a Forest <i>conversion</i> to non-forest land uses does not occur, except in circumstances where conversion entails a very limited portion of the forest management unit (note that Indicators 6.10.a, b, and c are related and all need to be conformed with for conversion to be allowed).</p>	C	<p>DOF is aware of the conversion requirements and has communicated with SCS over upcoming areas that may be subject to conversion.</p> <p>Areas that have been converted in the past include a RxR right-of-way (100 ft wide x 1.0 miles) on Green-Sullivan State Forest on previously strip-mined hills. There is one area on Yellowwood where sediment spoils have been cleared of non-native pine and will revegetate with grass for the short-term. These areas are very small in comparison to the rest of the FMU and are on degraded sites.</p>
<p>6.10.b Forest <i>conversion</i> to non-forest land uses does not occur on high conservation value forest areas (note that Indicators 6.10.a, b, and c are related and all need to be conformed with for conversion to be allowed).</p>	C	<p>The areas converted are very small in comparison to the rest of the FMU and are on degraded sites.</p>
<p>6.10.c Forest <i>conversion</i> to non-forest land uses does not occur, except in circumstances where conversion will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit (note that Indicators 6.10.a, b, and c are related and all need to be conformed with for conversion to be allowed).</p>	C	<p>Removal of non-native species on mine spoils removes some of the seed sources and may benefit adjacent forested areas of native species. The RxR right-of-way is treated in 6.10.f.</p>
<p>6.10.d Natural or semi-natural stands are not converted to plantations. Degraded, semi-natural stands may be converted to restoration plantations.</p>	C	<p>No natural forest areas have been converted to plantations. DOF's management can be characterized as natural forest management.</p>
<p>6.10.e Justification for land-use and stand-type conversions is fully described in the long-term management plan, and meets the biodiversity conservation requirements of Criterion 6.3 (see also Criterion 7.1.l)</p>	C	<p>This may need to be further examined during future evaluations as there are areas where 3rd parties own the Oil, Gas and Mineral (OGM) rights, as well as places where the state may own the rights.</p>
<p>6.10.f Areas converted to <i>non-forest use</i> for facilities associated with subsurface mineral and gas rights transferred by prior owners, or other conversion outside the control of the certificate holder, are identified on maps. The forest owner or manager consults with the CB to determine if removal of these areas from the scope of the certificate is warranted. To the extent allowed by these transferred rights, the forest owner or manager exercises control over the location of surface disturbances in a manner that minimizes adverse environmental and social impacts. If the certificate holder at one point held these rights, and then sold them, then subsequent conversion of forest to non-forest use would be subject to Indicator 6.10.a-d.</p>	C	<p>In regards to subsurface property rights, all coal rights are owned by others. There are outstanding subsurface rights on some State Forests tracts. DOF tries to get surface rights as much as possible. There are not very many areas where mining is an issue on the State Forests. Rights-of-way for federal and state highways and RxR tracks are largely out of the control of DOF. DOF should keep SCS informed of conversion activities.</p>
<p>P7 A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.</p>		
<p>C7.1. The management plan and supporting documents shall provide: a) Management objectives. b) description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands. c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories. d) Rationale for rate of annual harvest and species selection. e) Provisions for monitoring of forest growth</p>	C	

<p>and dynamics. f) Environmental safeguards based on environmental assessments. g) Plans for the identification and protection of rare, threatened and endangered species.</p> <p>h) Maps describing the forest resource base including protected areas, planned management activities and land ownership.</p> <p>i) Description and justification of harvesting techniques and equipment to be used.</p>		
<p>7.1.a. The management plan identifies the ownership and legal status of the FMU and its resources, including rights held by the owner and rights held by others.</p>	C	<p>DOF's ownership of the State Forest system has been established through state legislation</p> <p>The Procedures manual (http://www.in.gov/dnr/forestry/3647.htm) covers legal status, treaty rights, easements, deed restrictions, and leasing of the forest and its resources.</p> <p>Permit Spreadsheet (See attachment : <i>2D State Forest Permits.xlsx</i>)</p> <p>Special Use Permits (See attached sample: <i>2D Special Event Permit SpookRunEnduranceRide.pdf</i>)</p> <p>Agricultural/Farm Land Lease (See attached sample: <i>2D Shipley Property Farm Lease Contract 2010.pdf</i>)</p> <p>Trail Leases (See attached sample: <i>2D Horse Trail Lease Agrmt- come again.pdf</i>)</p> <p>Management Agreement (See attached sample: <i>2D Mgmt agrmtTulip Trace TNC.pdf</i>)</p>
<p>7.1.b. The management plan describes the history of land use and past management, current forest types and associated development, size class and/or successional stages, and natural disturbance regimes that affect the FMU (see Indicator 6.1.a).</p>	C	<p>History of past management is included in several management planning documents, including the Indiana Statewide Forest Assessment 2010. Current forest types and stand development are addressed in the Statewide Forest Assessment and individual FMPs for state forests. Past and current natural disturbances are addressed in several management planning documents, such as <i>Increasing Wildlife Habitat Diversity on Forested Lands managed by the Indiana Department of Natural Resources</i> and <i>Will Restricting Timber Harvesting from State Forest "Backcountry Areas" Benefit Our Species of Greatest Conservation Concern?</i></p> <p>Environmental Assessment (EA) – Natural disturbance regimes are described. The compartment management guides explain the past land use and management of the compartment, such as past ownership and what management has happened since DOF has taken management control.</p>
<p>7.1.c. The management plan describes:</p> <p>a) current conditions of the timber and non-timber forest resources being managed; b) desired future conditions; c) historical ecological conditions; and d) applicable management objectives and activities to move the FMU toward desired future conditions.</p>	NC	<p>Documents reviewed:</p> <ul style="list-style-type: none"> • Strategic plan • Draft HCP • Site plans • Desired future conditions – management guides (see "Overall" section and , strategic plan <p>Management guides are reviewed prior to timber sale being marked (reviewed by Central Office staff).</p> <p>See CAR 2011.10.</p>

7.1.d. The management plan includes a description of the landscape within which the FMU is located and describes how landscape-scale habitat elements described in Criterion 6.3 will be addressed.	C	Site management plans and state forest management guides describe the landscape context of each tract.
7.1.e. The management plan includes a description of the following resources and outlines activities to conserve and/or protect: <ul style="list-style-type: none"> • rare, threatened, or endangered species and natural communities (see Criterion 6.2); • plant species and community diversity and wildlife habitats (see Criterion 6.3); • water resources (see Criterion 6.5); • soil resources (see Criterion 6.3); • Representative Sample Areas (see Criterion 6.4); • High Conservation Value Forests (see Principle 9); • Other special management areas. 	C	The site level resource management guide includes a description of any rare, threatened or endangered species that have been identified on the site. The site level resource management guide describes the general habitat condition and wildlife habitats. The site level resource management guide covers any water resources on the site and describes the soils. The Division of Forestry designates specific areas as High Conservation Value Forests (HCVF) (document found on the web site). The DOF has completed a gap analysis for representative sample areas. EA, Nature Preserve, NHID for presence of RTE species. Plant/ community and wildlife in Description in site management plans. Water and soil resource discussed in site plans RSA/ HCV
7.1.f. If invasive species are present, the management plan describes invasive species conditions, applicable management objectives, and how they will be controlled (see Indicator 6.3.j).	C	Evidence examined: <ul style="list-style-type: none"> • Invasive species plan • Site plan • See CFI (5A_draft_CFI) • State Forest Management Strategy, published in April 2011 The State Forest Management Strategy discusses applicable management objectives for invasive species and the need for prioritization of those needing control. Management guides for state forests state what invasive species are present. It is expected that DOF's response to the CAR for 6.3.h will enhance conformance to this indicator.
7.1.g. The management plan describes insects and diseases, current or anticipated outbreaks on forest conditions and management goals, and how insects and diseases will be managed (see Criteria 6.6 and 6.8).	C	EAB, Gypsy moth, have EAB silvicultural guidelines. Near complete removal of Ash.
7.1.h. If chemicals are used, the plan describes what is being used, applications, and how the management system conforms with Criterion 6.6.	NC	The TSI work often involves chemical use. See Management Guides and TSI contracts. Procedures manual also has some information. See CAR 2011.10 .
7.1.i. If biological controls are used, the management plan describes what is being used, applications, and how the management system conforms with Criterion 6.8.	NA	DOF does not currently use biological control agents.
7.1.j. The management plan incorporates the results of the evaluation of social impacts, including: <ul style="list-style-type: none"> • traditional cultural resources and rights of use (see Criterion 2.1); • potential conflicts with customary uses and use rights (see Criteria 2.2, 2.3, 3.2); • management of ceremonial, archeological, and historic sites (see Criteria 3.3 and 4.5); • management of aesthetic values (see Indicator 4.4.a); 	NC	Socio-economic Information at the State/County Level is available at http://www.hoosierdata.in.gov/highlights/default.asp . It includes the following information for each county: Overview , Population, Education, Commuting, Labor Force, Industry, Income, and Firm Size. DOF has bits and pieces of information in many places, but how these are incorporated into the social impact is missing. A key question is how do the rights

<ul style="list-style-type: none"> public access to and use of the forest, and other recreation issues; local and regional socioeconomic conditions and economic opportunities, including creation and/or maintenance of quality jobs (see Indicators 4.1.b and 4.4.a), local purchasing opportunities (see Indicator 4.1.e), and participation in local development opportunities (see Indicator 4.1.g). 		<p>associated with these resources affect others?</p> <ul style="list-style-type: none"> 2.1 – Permits and easements are maintained in the Procedures manual. 2.2, 2.3, and 3.2 – Information may also be included in management guides and procedures manual. Natural resource commission may also have an impact. 3.3 and 4.5 – Management guides 4.4.a (aesthetics) – Procedure manual Public use – DNR rules Local purchasing, etc (4.1.b, 4.4.a, 4.1.e, 4.1.g) – state purchasing policies, special use permits <p>See CAR 2011.10.</p>
<p>7.1.k. The management plan describes the general purpose, condition and maintenance needs of the transportation network (see Indicator 6.5.e).</p>	C	<p>Management guides provide a description of access to different timber sales and describe any needs for maintenance and repair.</p> <p>Documents reviewed:</p> <ul style="list-style-type: none"> BMP manual; Forest Guide 602; Management guides
<p>7.1.l. The management plan describes the silvicultural and other management systems used and how they will sustain, over the long term, forest ecosystems present on the FMU.</p>	C	<p>The procedures manual provides an overarching description of the silvicultural systems on the FMU and the rationale for their use in terms of creating the desired age and species class distributions.</p> <p>Documents reviewed:</p> <ul style="list-style-type: none"> Strategic plan Procedures manual – Silvicultural Guidelines.
<p>7.1.m. The management plan describes how species selection and harvest rate calculations were developed to meet the requirements of Criterion 5.6.</p>	C	<p>No models are used to determine allowable harvest. Allowable harvest is based on actual system wide forest inventory. Continuous Forest Inventory (CFI) Summary (See attachment: 5A draft_cfi_property_systemwide_yr3.pdf).</p> <ul style="list-style-type: none"> Harvest Planned (See attachment: 7B Timber harvest targets 2010-2012_notice to field.pdf) Harvest Totals with Targets (See attachment: 7B 2009-2010 State Forest Timber Sales Spreadsheet with Targets.pdf) Timber Property Report (7B 2009-2010 State Forest Timber Sale Property Reports.pdf)
<p>7.1.n. The management plan includes a description of monitoring procedures necessary to address the requirements of Criterion 8.2.</p>	NC	<p>Indiana DOF properties section wildlife completes annual monitoring snag and cavity trees, spring resident bird populations, summer breeding bird populations, forest amphibians, and deer impacts from browsing. Methods used for monitoring are provided in the annual report “Indiana Division of Forestry Properties Section Wildlife Habitat Program 2010 Annual Report”</p> <p>Department of fisheries conducts annual creel census. The Wildlife monitoring annual report and CFI procedures includes reference to methodologies.</p> <p>See CAR 2011.10</p>
<p>7.1.o. The management plan includes maps describing the resource base, the characteristics of general management</p>	C	<p>DOF has detailed maps for all properties in both the central and field offices. GIS database has layers for</p>

zones, special management areas, and protected areas at a level of detail to achieve management objectives and protect sensitive sites.		property boundaries, roads, special management areas, protected areas, etc. Archaeological sites are protected from the general public's view.
7.1.p. The management plan describes and justifies the types and sizes of harvesting machinery and techniques employed on the FMU to minimize or limit impacts to the resource.	C	Timber harvest contracts specify equipment limitations and requirements. Harvest machinery for where special equipment is required may be specified. Most operators use grapple or cable skidders.
7.1.q. Plans for harvesting and other significant site-disturbing management activities required to carry out the management plan are prepared prior to implementation. Plans clearly describe the activity, the relationship to objectives, outcomes, any necessary environmental safeguards, health and safety measures, and include maps of adequate detail.	C	Site plans include timber harvest contracts, site plans, burn plans, and management guides. Environmental limitations and safeguards are described, such as T and E species presence, and riparian areas. Timber harvest contracts specify health and safety requirements, and include maps of the unit. Note that DOF has received a CAR for 7.1.c, which also covers relationship to objectives and outcomes.
7.1.r. The management plan describes the stakeholder consultation process.	C	When conducting the Statewide Forest Assessment & Strategy, DOF documented how it coordinated stakeholder consultations on a web page titled "Stakeholder Coordination" http://www.in.gov/dnr/forestry/5438.htm DOF has included a section called "Submitting a Public Comment" on its webpage: http://www.in.gov/dnr/forestry/3646.htm . In this section, the text explains how a stakeholder may submit a comment in three ways. Comments received on the 2008-2013 Strategic Plan for the Division of Forestry are summarized here: http://www.in.gov/dnr/forestry/files/fo_Summary_of_Public_Comments.040108.pdf .
C7.2. The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.	C	
7.2.a The management plan is kept up to date. It is reviewed on an ongoing basis and is updated whenever necessary to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances. At a minimum, a full revision occurs every 10 years.	C	DOF is currently operating on a five year strategic plan (2008-2013), updated in 2007-08. The next updating process will start in 2012. Additionally, DOF is revamping the website so that all of its management planning documents are more easily accessible by state workers and the public.
C7.3. Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plans.	C	
7.3.a. Workers are qualified to properly implement the management plan; All forest workers are provided with sufficient guidance and supervision to adequately implement their respective components of the plan.	C	DOF details the minimum requirements for all of its positions with HR. DOF conducts meetings and trainings so that employees understand and consistently implement their portions of the FMP. DOF maintains records of trainings and meetings. Contract loggers must submit evidence of required training in order to qualify for state harvests.
C7.4. While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.		
7.4.a. While respecting landowner confidentiality, the	C	The following documents serve as DOF's public

<p>management plan or a management plan summary that outlines the elements of the plan described in Criterion 7.1 is available to the public either at no charge or a nominal fee.</p>		<p>summary.</p> <p>2010 Annual Report http://www.in.gov/dnr/forestry/files/fo-2010AnnualReport.pdf)</p> <p>State Forest Environmental Assessment http://www.in.gov/dnr/forestry/files/fo-StateForests_EA.pdf)</p> <p>Division of Forestry 2008 -2013 Strategic Plan http://www.in.gov/dnr/forestry/files/fo-Forestry-Strategic-Plan-2008-2013.Final.pdf)</p> <p>Resource Management Guides Management guides for individual tracts are available http://www.in.gov/dnr/forestry/3643.htm)</p> <p>DOF's webpage also includes other documents that are completely accessible to the public.</p>
<p>7.4.b. Managers of public forests make draft management plans, revisions and supporting documentation easily accessible for public review and comment prior to their implementation. Managers address public comments and modify the plans to ensure compliance with this Standard.</p>	<p>C</p>	<p>DOF has made public drafts available for the 2008-2013 period of the management plan. Management planning documents are easily accessible via http://www.in.gov/dnr/forestry. A summary of how DOF responded to public comments received for the 2008-2013 period is provided here: http://www.in.gov/dnr/forestry/files/fo_Summary_of_Public_Comments.040108.pdf.</p>
<p>P8 Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.</p> <p><i>Applicability Note: On small and medium-sized forests (see Glossary), an informal, qualitative assessment may be appropriate. Formal, quantitative monitoring is required on large forests and/or intensively managed forests.</i></p>		
<p>C8.1. The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations, as well as, the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.</p>	<p>C</p>	
<p>8.1.a. Consistent with the scale and intensity of management, the forest owner or manager develops and consistently implements a regular, comprehensive, and replicable written monitoring protocol.</p>	<p>C</p>	<p>DOF has developed monitoring protocols in overall conformance to C8.2 that are systematically implemented and replicable. Monitoring protocols are documented to ensure consistency between state forests. Results are published or summarized in reports in most cases.</p> <p>System-wide inventories follow procedures as described in the Resource Inventory section of the Procedures Manual. Additionally, DOF is directed by many different planning documents, and each has different monitoring strategies:</p> <ul style="list-style-type: none"> • Forest Health Protection monitors various insect and disease levels annually; • Division of Fish and Wildlife has various monitoring routines from annual surveys to more periodic surveys; • Division of Forestry monitoring program includes typical weekly inspections of active

		<p>timber sales, annual 2nd-party monitoring of BMPs, 20-year monitoring of the inventory, and 5-year statewide permanent plot inventory analysis through FIA;</p> <ul style="list-style-type: none"> • Other inventories/monitoring on DOF properties includes Natural Areas inventory, fish population monitoring, cultural/archeological resource inventory.
<p>8.2. Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators: a) yield of all forest products harvested, b) growth rates, regeneration, and condition of the forest, c) composition and observed changes in the flora and fauna, d) environmental and social impacts of harvesting and other operations, and e) cost, productivity, and efficiency of forest management.</p>	C	
<p>8.2.a.1. For all commercially harvested products, an inventory system is maintained. The inventory system includes at a minimum: a) species, b) volumes, c) stocking, d) regeneration, and e) stand and forest composition and structure; and f) timber quality.</p>	C	DOF meets the breadth of this Indicator through its periodic system-wide inventory and CFI system, which together cover items a)-f).
<p>8.2.a.2. Significant, unanticipated removal or loss or increased vulnerability of forest resources is monitored and recorded. Recorded information shall include date and location of occurrence, description of disturbance, extent and severity of loss, and may be both quantitative and qualitative.</p>	C	DOF has a strong program for monitoring timber theft and has recorded significant events, such as storm damage, in updates to management guides and during the HCV review process.
<p>8.2.b The forest owner or manager maintains records of harvested timber and NTFPs (volume and product and/or grade). Records must adequately ensure that the requirements under Criterion 5.6 are met.</p>	C	Permits are not allowed for ginseng harvesting on State Forests. The Division of Nature Preserves is responsible for regulating the harvest and trade of ginseng in the State. Sales records are kept for each timber sale that allow for volume analysis at the district and whole-state forest system level. Current harvest data shows that harvest does not exceed growth.
<p>8.2.c. The forest owner or manager periodically obtains data needed to monitor presence on the FMU of:</p> <ol style="list-style-type: none"> 1) Rare, threatened and endangered species and/or their <i>habitats</i>; 2) Common and rare plant communities and/or habitat; 3) Location, presence and abundance of invasive species; 4) Condition of protected areas, set-asides and buffer zones; 5) High Conservation Value Forests (see Criterion 9.4). 	C	<p>Indiana DOF properties section wildlife completes annual monitoring snag and cavity trees, spring resident bird populations, summer breeding bird populations, forest amphibians, and deer impacts from browsing.</p> <p>Department of fisheries conducts annual creel census. The State of Indiana has a breeding bird atlas. Periodic surveys are completed for bats in caves. Periodic surveys are completed for the wood rat. Ruffed Grouse drumming surveys are completed. Nature Preserves completes annual surveys on preserves.</p> <p>DOF completes monitoring of BMP's (see "1996-2008 Forestry Best Management Practices Monitoring Results")</p> <p>T and E species that were previously undetected in other surveys are reported to the Natural Heritage Inventory Database.</p> <p>Monitoring of HCV occurs as part of site inspections and, if near an active harvest, as part of harvest</p>

		<p>monitoring. Should HCVs undergo active management, such as prescribed fire, DOF monitors the response (e.g., regeneration).</p> <p>When management guides are updated, the invasive species section must also be updated. Informal monitoring also occurs and since most field staff are licensed applicators, they may treat trouble spots quickly.</p> <p>See C9.4 for HCVs.</p>
8.2.d.1. Monitoring is conducted to ensure that site specific plans and operations are properly implemented, environmental impacts of site disturbing operations are minimized, and that harvest prescriptions and guidelines are effective.	C	<p>Evidence of monitoring includes the following reports and records:</p> <ul style="list-style-type: none"> • Timber sale inspection reports • Annual BMP monitoring report results • Contract monitoring (TSI forms) <p>More fundamental to meeting this indicator, DOF inspects active timber sales and conducts post-harvest reviews to ensure that objectives and BMPs are being met.</p>
8.2.d.2. A monitoring program is in place to assess the condition and environmental impacts of the forest-road system.	C	DOF monitors road construction and maintenance by tracking how many miles are completed each year per forest employee. Informal inspections occur during and after timber harvests.
8.2.d.3. The landowner or manager monitors relevant socio-economic issues (see Indicator 4.4.a), including the social impacts of harvesting, participation in local economic opportunities (see Indicator 4.1.g), the creation and/or maintenance of quality job opportunities (see Indicator 4.1.b), and local purchasing opportunities (see Indicator 4.1.e).	NC	See CAR 2011.11.
8.2.d.4. Stakeholder responses to management activities are monitored and recorded as necessary.	C	Strategic Plan and EA has stakeholder comments and responses recorded.
8.2.d.5. Where sites of cultural significance exist, the opportunity to jointly monitor sites of cultural significance is offered to tribal representatives (see Principle 3).	C	No tribes have expressed interest in monitoring sites of cultural significance. Many sites are pre-historic, making it difficult to tell which tribal groups were present.
8.2.e. The forest owner or manager monitors the costs and revenues of management in order to assess productivity and efficiency.	C	Costs of each arranging each timber sale are included in each site plan for later analysis. The budget office maintains information on all expenditures and income. DOF's upper management analyses budgets for individual projects and the department as a whole to assess productivity and efficiency.
C8.3. Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody."	C	
8.3.a. When forest products are being sold as FSC-certified, the forest owner or manager has a system that prevents mixing of FSC-certified and non-certified forest products prior to the point of sale, with accompanying documentation to enable the tracing of the harvested material from each harvested product from its origin to the point of sale.	C	See the Chain of Custody Appendix for more information. DOF maintains a COC system that prevents the mixing of certified and non-certified products prior to the point of sale and has accompanying documentation to enable the tracing of the harvested material from the 'stump to the gate.'
8.3.b The forest owner or manager maintains documentation to enable the tracing of the harvested	C	DOF maintains such documentation, which the SCS audit team was able to review during the

material from each harvested product from its origin to the point of sale.		recertification evaluation. See the COC Appendix for more details.
C8.4. The results of monitoring shall be incorporated into the implementation and revision of the management plan.	C	
8.4.a. The forest owner or manager monitors and documents the degree to which the objectives stated in the management plan are being fulfilled, as well as significant deviations from the plan.	C	Post-harvest monitoring is conducted to track progress on individual Management Guides for each district. The Strategic Plan is updated every 5 years to examine if management objectives are being met and, if necessary, to modify objectives or activities defined to meet objectives.
8.4.b. Where monitoring indicates that management objectives and guidelines, including those necessary for conformance with this Standard, are not being met or if changing conditions indicate that a change in management strategy is necessary, the management plan, operational plans, and/or other plan implementation measures are revised to ensure the objectives and guidelines will be met. If monitoring shows that the management objectives and guidelines themselves are not sufficient to ensure conformance with this Standard, then the objectives and guidelines are modified.	C	The number of openings were increased during 2010-2011, but not the size of openings. DOF is attempting to meet its objectives of oak regeneration outlined in the Strategic Plan for 2008-2013. As such, DOF is modifying its management activities in order to meet its management objectives.
C8.5. While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.	C	
8.5.a. While protecting landowner confidentiality, either full monitoring results or an up-to-date summary of the most recent monitoring information is maintained, covering the Indicators listed in Criterion 8.2, and is available to the public, free or at a nominal price, upon request.	C	All monitoring results are available on the public record. Many monitoring reports and analyses are available on the State of Indiana's websites. For example, BMP monitoring results are published on the website annually.
<p>P9 Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.</p> <p>High Conservation Value Forests are those that possess one or more of the following attributes:</p> <p>a) Forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g., endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance</p> <p>b) Forest areas that are in or contain rare, threatened or endangered ecosystems</p> <p>c) Forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control)</p> <p>d) Forest areas fundamental to meeting basic needs of local communities (e.g., subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).</p> <p>Examples of forest areas that <i>may have</i> high conservation value attributes include, but are not limited to:</p> <p>Central Hardwoods:</p> <ul style="list-style-type: none"> • Old growth – (see Glossary) (a) • Old forests/mixed age stands that include trees >160 years old (a) • Municipal watersheds –headwaters, reservoirs (c) • Rare, Threatened, and Endangered (RTE) ecosystems, as defined by GAP analysis, Natural Heritage Inventory, and/or the World Wildlife Fund's Forest Communities of Highest Conservation Concern, and/or Great Lakes Assessment (b) • Intact forest blocks in an agriculturally dominated landscape (refugia) (a) • Intact forests >1000 ac (valuable to interior forest species) (a) • Protected caves (a, b, or d) 		

- Savannas (a, b, c, or d)
- Glades (a, b, or d)
- Barrens (a, b, or d)
- Prairie remnants (a, b, or d)

North Woods/Lake States:

- Old growth – (see Glossary) (a)
- Old forests/mixed age stands that include trees >120 years old (a)
- Blocks of contiguous forest, > 500 ac, which host RTEs (b)
- Oak savannas (b)
- Hemlock-dominated forests (b)
- Pine stands of natural origin (b)
- Contiguous blocks, >500 ac, of late successional species, that are managed to create old growth (a)
- Fens, particularly calcareous fens (c)
- Other non-forest communities, e.g., barrens, prairies, distinctive geological land forms, vernal pools (b or c)
- Other sites as defined by GAP analysis, Natural Heritage Inventory, and/or the World Wildlife Fund’s Forest Communities of Highest Conservation Concern (b)

Note: In the Lake States-Central Hardwoods region, old growth (see Glossary) is both rare and invariably an HCVF.

In the Lake States-Central Hardwoods region, cutting timber is not permitted in old-growth stands or forests.

Note: Old forests (see Glossary) may or may not be designated HCVFs. They are managed to maintain or recruit: (1) the existing abundance of old trees and (2) the landscape- and stand-level structures of old-growth forests, consistent with the composition and structures produced by natural processes.

Old forests that either have or are developing old-growth attributes, but which have been previously harvested, may be designated HCVFs and may be harvested under special plans that account for the ecological attributes that make it an HCVF.

Forest management maintains a mix of sub-climax and climax old-forest conditions in the landscape.

<p>C9.1. Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.</p>	C	
<p>9.1.a. The forest owner or manager identifies and maps the presence of High Conservation Value Forests (HCVF) within the FMU and, to the extent that data are available, adjacent to their FMU, in a manner consistent with the assessment process, definitions, data sources, and other guidance described in Appendix F.</p> <p>Given the relative rarity of old growth forests in the contiguous United States, these areas are normally designated as HCVF, and all old growth must be managed in conformance with Indicator 6.3.a.3 and requirements for legacy trees in Indicator 6.3.f.</p>	NC	<p>DOF has mapped the locations of HCVF in the forest, but has not classified them by type. See CAR 2011.12</p>
<p>9.1.b. In developing the assessment, the forest owner or manager consults with qualified specialists, independent experts, and local community members who may have knowledge of areas that meet the definition of HCVs.</p>	C	<p>DOF consulted Nature Preserves, local experts, and specialists when they identified HCVF’s. The call for nominations for HCVFs remains open at any time, which is one of the main reasons that DOF demonstrates overall conformance to this indicator.</p> <p>The web document “INDIANA DIVISION OF FORESTRY HIGH CONSERVATION VALUE FORESTS” refers the reader to the Division of Nature preserves for more information on the classification and management of Nature Preserves. Nature Preserves has long had its own partners in assessing areas that may meet the</p>

		definition of HCVs. For example, local landtrusts and The Nature Conservancy have collaborated with Nature Preserves on classification and management of identified HCVs (http://www.in.gov/dnr/naturepreserve/5562.htm).
9.1.c. A summary of the assessment results and management strategies (see Criterion 9.3) is included in the management plan summary that is made available to the public.	C	The web document "INDIANA DIVISION OF FORESTRY HIGH CONSERVATION VALUE FORESTS" summarizes the process used to identify HCVF, their locations and the process to provide comment. A general management strategy is also provided.
C9.2. The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.	C	
9.2.a. The forest owner or manager holds consultations with stakeholders and experts to confirm that proposed HCVF locations and their attributes have been accurately identified, and that appropriate options for the maintenance of their HCV attributes have been adopted.	C	The audit team visited a site in Ferdinand State Forest that was proposed as an HCVF by a stake holder. The team reviewed the process that DOF uses to officially designate an HCVF including site visits by Nature Preserve personnel to assess the quality of the nominated site.
9.2.b. On public forests, a transparent and accessible public review of proposed HCV attributes and HCVF areas and management is carried out. Information from stakeholder consultations and other public review is integrated into HCVF descriptions, delineations and management.	C	The HCVF nomination process is still open to nomination and review. See OBS.2011.13
C9.3. The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.	C	
9.3.a. The management plan and relevant operational plans describe the measures necessary to ensure the maintenance and/or enhancement of all high conservation values present in all identified HCVF areas, including the precautions required to avoid risks or impacts to such values (see Principle 7). These measures are implemented.	NC	The web document "INDIANA DIVISION OF FORESTRY HIGH CONSERVATION VALUE FORESTS" summarizes management activities in HCFV's. See Indicator 9.3.b. See CAR 2011.14
9.3.b. All management activities in HCVFs must maintain or enhance the high conservation values and the extent of the HCVF.	C	The web document "INDIANA DIVISION OF FORESTRY HIGH CONSERVATION VALUE FORESTS" summarizes management activities in HCFV's. "Management of HCVF will be directed toward maintenance or improvement of the condition for which the HCVF was designated. Management of these initial HCVF is primarily under the direction of the Division of Nature Preserves; the Division of Forestry may assist in their management when resources allow. Management activities that create disturbance generally are not conducted in Nature Preserves unless prescribed in the articles of dedication of each preserve. While many preserves may require little or no management, periodic or regular management may be required to maintain ecological integrity (e.g., prescribed fire or control of invasive species) or to maintain the character of ecologically unique disturbance-dependent communities (e.g., glades and barrens). Essential trails and roads within nature preserves are maintained in a manner that minimizes environmental impact. New trails or roads are routed

		to avoid nature preserves when practicable.
9.3.c. If HCVF attributes cross ownership boundaries and where maintenance of the HCV attributes would be improved by coordinated management, then the forest owner or manager attempts to coordinate conservation efforts with adjacent landowners.	C	DOF has not yet identified any HCV attributes that cross ownership boundaries. However, Nature Preserves manages some HCVs in cooperation with other adjacent public and private reserves. Some of these HCVs are not on DOF-managed properties, however.
C9.4. Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.	C	
9.4.a. The forest owner or manager monitors, or participates in a program to annually monitor, the status of the specific HCV attributes, including the effectiveness of the measures employed for their maintenance or enhancement. The monitoring program is designed and implemented consistent with the requirements of Principle 8.	NC	Nature Preserve personnel complete monitoring at periodic intervals on HCVFs to document the status of HCV attributes. See CAR 2011.15
9.4.b. When monitoring results indicate increasing risk to a specific HCV attribute, the forest owner/manager re-evaluates the measures taken to maintain or enhance that attribute, and adjusts the management measures in an effort to reverse the trend.	C	Nature Preserve personnel have suggested that periodic burning be used to maintain the Leavenworth Barrens as an open habitat. DOF has been working on an Indiana Bat HCP for some time. In the meantime, DOF applies its interim guidelines for Indiana Bat from March 2004. DOF wildlife staff has indicated that other bat species may be at risk due to White-nose syndrome and that it awaits further information from cooperating organizations, and federal and state agencies on bat conservation.
<p>P10 Plantations shall be planned and managed in accordance with Principles and Criteria 1-9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.</p> <p>Based on the field evidence examined during the 2011 assessment, SCS has determined that DOF's forest management system does not meet the FSC definition of plantation management. Thus, Principle 10 is wholly non-applicable.</p>		

Appendix 4 – Tracking, tracing and identification of certified products (CONFIDENTIAL)

<p>Tracking, tracing and identification of certified products</p> <p><i>SCS auditors shall address each indicator in the findings section. Some sections for large-scale FMEs may be required.</i></p>
<p>1.1. An evaluation of the risk of products from non-certified sources (including any areas specifically excluded from the scope of the certificate) being mixed with products from the forest area evaluated.</p> <p>SCS Auditor Findings: All sales of FSC certified material from DOF state forests are lump sum where the buyer pays for the timber prior to harvest. There is no risk of mixing of certified and non-certified products prior to the transfer of legal ownership. DOF occasionally sells items such as cedar fence posts on a unit basis but does not make FSC claims on these products.</p>
<p>1.2. A description of the control (tracking and tracing) systems in place that address the risk identified in 1.1 above.</p> <p><i>If the evaluation does not include all the FMUs in which the FME is involved, the FME shall describe the special controls in place to ensure that there is no risk of confusion as to which products are certified, and which are not.</i></p>

SCS Auditor Findings: NA – A control system is not needed for lump sum sales.		
1.3. Forest gate (check all that apply): <i>The forest gate is defined as the point where the change in ownership of the certified-forest product occurs.</i>		
<input type="checkbox"/> Stump <i>Stumpage sale or sales of standing timber; transfer of ownership of certified-forest product occurs upon harvest.</i>	<input type="checkbox"/> Log landing <i>Transfer of ownership of certified-product occurs at landing/yarding areas.</i>	<input type="checkbox"/> On-site concentration yard <i>Transfer of ownership of certified-product occurs at concentration yard under control of FME.</i>
<input type="checkbox"/> Off-site Mill/Log Yard <i>Transfer of ownership occurs when certified-product is unloaded at purchaser's facility.</i>	<input type="checkbox"/> Auction house <i>Transfer of ownership occurs at a government-run or private auction house/ brokerage.</i>	<input checked="" type="checkbox"/> Other: Lump-Sum Payment <i>A timber sale in which the buyer and seller agree on a total price for marked standing trees or for trees within a defined area before the wood is removed — the timber is usually paid for before harvesting begins. Similar to a per-unit sale.</i>
SCS Auditor Findings: All forest products with FSC claims are made on a lump sum basis whereby the buyer pays for the material prior to harvest. Ownership transfer occurs at the time of payment.		
1.4. A description of the documentation or marking system that allows products from the certified forest area to be reliably identified as such at the forest gate(s) identified in 1.3, including the FSC-claim and FSC certificate code on invoices.		
SCS Auditor Findings: FSC claim and certificate numbers are indicated on the Timber Sale Notice and the Letter of Agreement For Sale of Timber on State Forest Land.		
1.5. Does FME have any primary or secondary processing facilities (e.g., fully-integrated production)? <i>NOTE: This does not apply to log cutting or de-barking units, small portable sawmills or on-site processing of chips/biomass originating from the FMU under evaluation. They can be evaluated as part of the 'normal' forest evaluation procedures. If any such on-site processing is done by contractors, this must be covered in section 1.5 on outsourcing for large-scale operations.</i>	<input type="checkbox"/> Yes <i>Such sites shall be inspected for conformance to the applicable chain of custody standard(s) (e.g., FSC-STD-40-004). See 1.1.4 for large-scale FMEs.</i>	<input checked="" type="checkbox"/> No
SCS Auditor Findings: NA – DOF has no processing facilities.		
1.6. All uses of FSC and SCS trademarks shall be done in accordance to section “1.4 Labeling and Promotion” for large-scale FMEs.		
SCS Auditor Findings: DOF could not produce SCS approval for trademark use on the Timber Sale Notice and the Letter of Agreement For Sale of Timber on State Forest Land. Also, they must change the claim to 100%. See CAR 2011.17 .		

[REQUIRED INFORMATION ON INVOICES](#)

The following is based on see FSC-STD-40-004 V2-0 Clause 6.1.1 and 6.1.2:
6.1.1. The organization shall ensure that all invoices issued for outputs sold with FSC claims include the following information: a) name and contact details of the organization;

- b) name and address of the customer;
- c) date when the document was issued;
- d) description of the product;
- e) quantity of the products sold;
- f) the organization's FSC Forest Management (FM/COC) or FSC Controlled Wood (CW/FM) code;
- g) clear indication of the FSC claim for each product item or the total products as follows:
 - i. the claim "FSC Pure" for products from FSC Pure product groups;
 - ii. the claim "FSC Controlled Wood" for products from FSC Controlled Wood product groups.
- h) if separate transport documents are issued, information sufficient to link the invoice and related transport documentation to each other.

6.1.2. The organization shall include the same information as required in clause 6.1.1 in the related transport documentation, if the invoice (or copy of it) is not included with the shipment of the product.

SCS Findings: FSC claim and certificate numbers are indicated on the Timber Sale Notice and the Letter of Agreement For Sale of Timber on State Forest Land. These documents also contain the name and contact information both for the seller and purchaser, date, and estimated sale volume. Load tickets and mill receipts are reported to DOF and are traceable to each lump-sum sale.

The following is based on ADVICE-40-004-05 within FSC-DIR-40-004 as updated on 30 – March – 2011:

When the FME has demonstrated it is not able to include the required FSC claim as specified above in 6.1.1 and 6.1.2 in sales and delivery documents due to space constraints, through an exception, SCS can approve the required information to be provided through supplementary evidence (e.g. supplementary letters, a link to the own company's webpage with verifiable product information). This practice is only acceptable when SCS is satisfied that the supplementary method proposed by the FME complies with the following criteria:

- a) There is no risk that the customer will misinterpret which products are or are not FSC certified in the document;
- b) The sales and delivery documents contain visible and understandable information so that the customer is aware that the full FSC claim is provided through supplementary evidence;
- c) In cases where the sales and delivery documents contain multiple products with different FSC Claims, a clear identification for each product shall be included to cross-reference it with the associated FSC claim provided in the supplementary evidence.

Appendix 5 – List of Stakeholders Consulted (CONFIDENTIAL)*

List of FME Staff Consulted

Name	Title	Contact	Consultation method
Dan Ernst	Assistant State Forester	dernst@dnr.IN.gov	Field, meeting
John Friedrich		jfriedrich@dnr.IN.gov	Field, meeting
Brenda Huter	Certification coordinator	bhuter@dnr.IN.gov	Field, meeting
Scott Haulton	Forestry Wildlife Specialist	shaulton@dnr.IN.gov	Field, meeting
John Siefert	State Forester	jsiefert@dnr.IN.gov	Field, meeting
Carl Hauser	District Forester	chauser@dnr.IN.gov	Field, meeting
Eric Kleinert	Human Resource		Field, meeting
Katie Smith	State Endangered Resources Coordinator		Field, meeting
Nick Heinzelman	State Land Acquisition		Field, meeting
Zach Smith	GIS specialist		Field, meeting
John Bacone	Nature Preserves		Field, meeting
John Friedrich,	Property Specialist		Field, meeting
AJ Ariens	Forestry Archeologist		Field, meeting
Andy Fox	Martin State Forest		Field, meeting
Abe Bear	Martin State Forest		Field, meeting
Jim Lauck	Martin State Forest		Field, meeting
Bradley Schneck	Jackson-Washington State Forest		Field, meeting
Jacob Hougham	Jackson-Washington State Forest		Field, meeting
Mike Spalding	Jackson-Washington State Forest		Field, meeting
Doug Brown	Ferdinand-Pike State Forest		Field, meeting
Jamie Winner	Ferdinand-Pike State Forest		Field, meeting

List of other Stakeholders Consulted

Name	Organization	Contact	Consultation method
Phil Etienne	Phil Etienne Logging	812-843-5208	Field
Eric Johnson	Bill Bane Logging	812-358-5790	Field
William L. Hoover	Professor of Forestry, Purdue University	billh@purdue.edu	Email, phone

Liz Jackson	Executive Director Indiana Forestry & Woodland Owners Association	jackson@purdue.edu	Email, phone
Robert Woodling	Retired	robertwoodling@aim.com	Email, phone
Brian MacGowan	Extension Wildlife Specialist FNR Extension Co- ordinator Purdue University Department of Forestry and Natural Resources	macgowan@purdue.edu	Email, phone
Scott Pruitt	Field Supervisor U.S. Fish & Wildlife Service	Scott_Pruitt@fws.gov	Email, phone
Randy J. Showalter	Randy Showalter, Regional Wildlife Biologist National Wild Turkey Federation	rshowalter@nwtf.net	Email, phone
Tom Hougham	None provided	annntom@hotmail.com	Email, phone
Dan Shaver	The Nature Conservancy	dshaver@TNC.ORG	Email, phone
Tim Maloney	Senior Policy Director Hoosier Environmental Council	tmaloney@hecweb.org	Email
Kenneth Collins	NRCS, Indianapolis, IN	kenneth.collins@in.usda.gov	Email, phone

Appendix 6 – List of FMUs selected for evaluation (CONFIDENTIAL)*

<input checked="" type="checkbox"/> FME consists of a single FMU – <i>No further action required</i>
<input type="checkbox"/> FME consists of multiple FMUs – <i>See table below, which applies to multiple FMU and group management evaluations, but is inapplicable if the scope of the evaluation is a single FMU.</i>

Appendix 7 – Partial Certification/ Excision (CONFIDENTIAL)

Applicability of FSC partial certification and excision policy (FSC-POL-20-002 and SCS-SOP-FM-10)		
<i>The following public information must be provided by the FME and reviewed by SCS:</i>		
1. Are there any lands owned or managed by the applicant not included in the scope of the certification evaluation?	<input type="checkbox"/> Yes <i>Continue to question 2.</i>	<input checked="" type="checkbox"/> No, all forestland owned or managed by the applicant is included in the scope. <i>Finished with this section.</i>
2. What is the nature of the	<input type="checkbox"/> Applicant owns and/or	<input type="checkbox"/> Applicant wishes to excise

land(s) outside of the scope of evaluation? <i>Check all that apply.</i>	manages other forestland (FMUs) not under evaluation. <i>Complete this section.</i>	portions of the FMU(s) under evaluation from the scope of certification. <i>Complete this section.</i>
Explanation for exclusion of FMUs and/or excision:		
Control measures to prevent mixing of certified and non-certified product (C8.3):		
Description of FMUs excluded from or forested area excised from the scope of certification:		
Name of FMU or Stand	Location (city, state, country)	Size (ha or ac)
<i>FSC will only allow its association with organizations that are not directly or indirectly involved in the unacceptable activities defined in FSC-POL-01-004.</i>		
<i>Should FME fail to provide evidence of compliance with items 1-7 above or operates in an area with high risk for conversion and/or human rights violation, SCS may conduct additional stakeholder outreach or special audits to corroborate evidence presented in items 1-7 above.</i>		

Appendix 8 – Additional Evaluation Techniques Employed*

No additional evaluation techniques were employed to assess the FME.

Appendix 9 – Peer Review and SCS Evaluation Team Response to Peer Review

No peer review is required as part of recertification evaluations.³