



**Bureau Veritas Certification
North America, Inc.
SFI Forest Management Audit Report**

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PQC Code	E01E
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Certification Audit:		Re-Certification Audit:	X	Surveillance Audit:		Scope extension audit:	
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Audit Summary
<p align="center">Introduction</p> <p>This report summarizes the results of the renewal and upgrade audit conducted on the Missouri Department of Conservation’s (MDC’s) SFI program for forest management. The audit was conducted by Mr. Richard Boitnott, Bureau Veritas Certification lead auditor. Mr. Boitnott is an SAF certified forester, a Texas accredited forester, and has wildlife management expertise. He worked for forest industry for 22 years in a variety of forestry and wildlife management positions before beginning his auditing career over 21 years ago.</p> <p align="center">Audit Scope, Objectives and Process</p> <p>The scope of this audit is “land management on Department of Conservation owned land in the state of Missouri”. The audit was conducted against the SFI 2022 Forest Management Standard. All SFI Objectives were covered during the audit. This audit served as an upgrade to the 2022 standard. There was no substitution or modification of indicators. Specifically, two objectives of the SFI audit were to verify that the Program Participant’s SFI Program is in conformance with the SFI Objectives, Performance Measures, and Indicators, and any additional indicators that the Program Participant chooses, and verify whether the Program Participant has effectively implemented its SFI Standard program requirements on the ground. Standard Bureau Veritas Certification protocols and forms were applied throughout the audit as provided by the most recent version of the Bureau Veritas Certification SFI Auditor Handbook available on the auditor access website.</p> <p align="center">Audit Plan</p> <p>A one-day document review was conducted on the 30th of August 2022. Field audits in the central, northeast, St. Louis and southeast regions were conducted August 31st through September 2nd. A closing meeting was held at the close of business on the 2nd. An audit plan was developed and is on file with Bureau Veritas Certification</p> <p align="center">Company Information</p> <p>The Missouri Department of Conservation is a public entity tasked with restoring, conserving, and regulating Missouri’s fisheries, forests, and wildlife. The department manages more than 975,000 acres of land in the state, of which approximately 696,630 are forested and covered by the scope of this audit. The forest type is generally an oak-hickory forest, mixed with some shortleaf pine. However, a portion of the ownership is located in the Mississippi alluvial plain, consisting of a</p>

bottomland forest. The agency also manages a considerable amount of open land interspersed in its forested areas. Most of the ownership is moderately to relatively steeply dissected, with the exception of the bottomland areas. MDC manages its forest using natural regeneration. Very little clearcutting occurs, and the only herbicide use is for the control of invasive species and to conduct timber stand improvement. This audit was focused on the northeast, central, St. Louis, and southeast regions.

Multi-Site Requirements

MDC maintains a multi-site certification consisting of eight regions. Headquarters of the management system is in Jefferson City, Missouri. The agency qualifies for multi-site sampling since the management system is controlled and directed by the central office. The SFI manager operates an internal audit program that is one upon which Bureau Veritas Certification can place a high degree of reliance to ensure continued conformance with the SFI standard. Regions are responsible for developing corrective actions and reporting to the central office.

Three regions are required to be audited during the renewal, two during each surveillance. However, it is not uncommon to audit more sites than is required in order to find enough activities to review given the low level of activity of the agency.

Sites	Sites Audited During this Event
Jefferson City	X
Northeast Region	X
Southeast Region	X
Ozark Region	
St. Louis Region	X
Central Region	X
Southwest Region	
Kansas City Region	
Northwest Region	

Audit Results

The document review was conducted to determine if MDC’s system documentation meets the SFI 2022 Forest Management Standard. The central office audit also examined the company’s procedures for meeting multi-site requirements. The field audit consisted of a review of harvesting and prescribed burning operations on six different conservation areas. One of the sites was active at the time of the audit. The logger was interviewed to determine training, spill response, rutting guidelines, riparian protection, water bar installation, and acceptable damage to the residual stand.

Objective 1-Forest Management Planning:

MDC continues to operate a stand-level inventory system. The agency uses a continuous forest inventory (CFI) system to provide information on growth and yield. CFI plots are remeasured every 5 years. The agency uses the area control method to schedule harvests. The agency is aware of potential impact of climate change on forest inventory. MDC has a GIS in place, including soils information. The agency has an ecological land classification system. No significant changes have occurred in the past year.

MDC does not have income or harvesting targets. It conducts timber harvests to enhance forest health and provide wildlife habitat. Timber removal for 2021 was more than 2020, but still well less than 1% of the estimated 2.9 billion bd. ft across its ownership. Estimated growth is 3%, so the

agency is still harvesting much less than growth. MDC only conducts conversions to achieve restoration objectives. The agency does not conduct afforestation and does not convert land to non-forest uses.

The agency has addressed the environmental, economic, and social impacts of its management plan. The environmental impacts include managing forest for health and wildlife habitat enhancement. Agency land is open to the public for recreation, addressing the social impacts. The Missouri Conservation Strategy (CCS) addresses the economic impacts.

Objective 2-Forest Health and Productivity:

Specific treatments for each stand, including regeneration and intermediate harvests, are identified during compartment inventory and analysis. Most harvest sites observed during the audit were partial harvests, with the intention of improving stand health and facilitating regeneration. A few clearcuts were observed, albeit very small, with much standing retention. Regeneration is evaluated during forest inventory processes. Natural regeneration is usually not a problem, but if less than 100 desirable TPA are present after 15-20 years, additional silvicultural treatments may be used. MDC does an excellent job of monitoring and diligently managing its forest to prevent impacts from pests.

MDC's Missouri Forest Management Guidelines addresses the use of integrated pest management. Herbicides are generally only used to treat invasive species or to conduct timber stand improvement treatments. Employees responsible for herbicide applications work under someone who is properly licensed. No herbicide use was observed during this audit. The agency does not use any WHO Type 1A or 1B pesticides, nor does it use any banned under the Stockholm Convention.

Soil productivity was very well protected on all harvest sites. No rutting or soil compaction was observed during the audit. Foresters and the one logging contractor were very consistent in their responses to acceptable rutting guidelines, which are spelled out in the Missouri Watershed Protection Practice document and included in logging contracts.

MDC has increased its harvest levels, but still has a way to go to meet its goal of improving forest health and enhancing wildlife habitat across its ownership. However, the agency is constrained by public opinion, which especially limits its ability to conduct clear-cuts, essential for providing habitat for early successional species, something lacking in this predominantly mature and over-mature forest.

Objective 3-Protection and Maintenance of Water Resources:

Compliance with the Missouri Watershed Protection Practice (BMP) was evident on all harvest sites reviewed during the audit. Streamside management zones were very well established, generally wider than required, and included protection of ephemeral streams (termed order 1 streams), which is not required by the Missouri Watershed Protection Practice guidelines. Water bars were in place on roads and skid trails, although the foresters generally have to monitor loggers to ensure they install them properly. Timber harvests are monitored for BMP compliance, with results recorded on an inspection form. There was some variability in how the forms were completed. It did not represent a failure in the monitoring program, so a non-conformance was not warranted, but an opportunity for improvement was issued to encourage the agency to address the discrepancies. What few stream crossings were observed during the audit were very well done, ensuring no sediment delivery into the stream course. Logging contracts contain a requirement for compliance to BMPs.

The agency depends on the implementation of BMPs to address water quantity. Its management activities are conducive to maintaining water quantity. It does not conduct a lot of clearcuts, and the

ones it does are not large. Its land is relatively heavily forested, providing an even flow of water.

Objective 4-Conservation of Biological Diversity:

MDC continues to operate a robust wildlife management and biodiversity program, given its focus is on enhancing wildlife habitat. Input from natural history biologists are obtained for every timber sale, providing known locations of T&E species, FECVs, and other species of concern, along with appropriate management recommendations. Harvest timing restrictions are in place on most sales due to the potential presence of federally listed bat species. The agency has entered into a Habitat Conservation Plan (HCP) that addresses the habitat requirements of a number of bat species, specifically the Indiana Bat, Northern Long-eared Bat, Tricolor Bat, Gray Bat, and Little Brown Bat, but encompasses all bat species that could potentially be listed. The HCP provides for incidental take of these species if certain conservation measures are implemented. The plan itself is over 500 pages, a daunting task for any forester to read and understand what on-the-ground measures they need to implement. The natural history staff took it upon themselves to condense the 500-page document into a two-pager that easily provides for all the possible scenarios a forester may encounter, and the conservation measures to implement. The agency was issued a notable practice for its efforts to ensure conservation of bats.

The agency considers all G and S ranked species, in addition to T&E species. MDC uses its CCS to determine priority species to incorporate into its forest management plans, which is a combination of state wildlife action and forest action plans. The agency uses its ecological land classification system to document forest cover types.

Stand-level wildlife habitat elements were evident on all harvests reviewed during the audit. There was an obvious attempt to retain snags and legacy trees. Clearcuts were very “fuzzy”, with more than ample standing retention. As mentioned above, MDC is quite focused on the conservation of bat species, thus the effort to retain snags, which also benefits a myriad of other species. The agency has a policy to retain at least 10% of its land in old-growth or old-growth potential stands. MDC does a good job of using prescribed fire to enhance wildlife habitat and control invasive species. This mimics the natural disturbance regime encountered in this region of the country.

Missouri has a number of non-native invasive species. MDC is quite active in identifying and treating any significant occurrences of non-native invasive species. Employees were well aware of invasive species that could occur in their area of operations. Most are treated either through prescribed burning or limited use of herbicides. The agency is still trapping feral hogs, an effort that is apparently paying off as fewer hogs are trapped each year.

MDC has a division devoted to conducting biodiversity related research. Results are incorporated into area management plans and communicated through training. The agency makes it property available to demonstrate the conservation outcomes of sustainable forest management.

Objective 5-Management of Visual Quality and Recreational Benefits:

One of the primary focuses of MDC is on aesthetics, so it has a very robust aesthetic management program. The primary way of addressing aesthetics is to slash logging debris to within two to six feet off the ground within defined distances depending on type of road. This includes haul roads, as these are used by the public. The manner in which the agency manages its forest also contributes quite well to visual quality. The average clearcut size for the few clear-cuts conducted in 2021 was 12 acres. What few clear-cuts the agency conducts have a considerable amount of standing retention. MDC has a policy to not clear-cut next to a stand unless the adjoining stand is at least 10 feet in height or 50% canopy cover, which takes longer than three years in Missouri. The few clear-cuts

observed during this audit all met the agency's green-up policy.

Objective 6-Protection of Special Sites:

MDC manages the natural heritage database, which includes information on cultural and historical resources. The potential presence of these resources is examined during activity planning processes

Objective 7-Efficient Use of Fiber Resources:

All harvest units observed during the audit demonstrated proper utilization, given all harvest activities were conducted in a hardwood ecosystem, which results in more residual material, along with a poor pulpwood market in portions of MDC's ownership. Utilization is monitored during harvest activities, with results recorded on an inspection form.

Objective 8: Recognize and Respect Indigenous People's Rights:

MDC has a policy in place to respect the rights of indigenous peoples. No known federally recognized tribes exist in Missouri, but the agency has a process to respond to public inquiries.

Objective 9-Climate Smart Forestry:

MDC did a good job of identifying the risk of its forest to the potential impacts of climate change and developing an appropriate adaptation plan. The agency identified increased storm water flow, changing forest composition, increased risk of wildfire, blowdowns, and other natural disturbances, forest pests, and increased occurrences of invasive species as potential risks. Proposed actions are identified for each category of risk. MDC used the U.S. Forest Service Climate Change Resource Center Tree Atlas to determine the risk of movement of the primary species in MDC forests. Almost all are relatively resilient under the moderate emissions scenario. The agency demonstrated the carbon sequestration benefits provided by its forests. It identified the greenhouse gas emissions from its own operations (vehicle use, offices), but did not include identification of the emissions of its contractors. In the opinion of the lead auditor, contractors are under the operational control of the agency, and issued an opportunity for improvement to ensure it includes contractors in the identification of green-house gas emissions.

Objective 10-Fire Resilience and Awareness:

The primary risk of wildfire on agency property is from arson. The number and acreage of wildfires has been significantly reduced in the past few years primarily due to some of the old arsonist dying out. The agency does a lot of control burning, although it is not specifically done to reduce fuel load but does provide the added benefit. The agency will install BMPs on fire lines if they must cross a stream. It will also consider regenerating an area if it is severely burned. MDC provides a lot of financial assistance to local fire departments. The agency has a private lands program and conducts landowner workshops to promote the benefits of prescribed fire and the risk of wildfire. The agency also cooperates with the prescribed fire council.

Objective 11-Legal and Regulatory Compliance:

MDC's system to achieve compliance consists of contract language, pre-activity planning processes, training, and monitoring. Employees and contractors were well aware of spill reporting requirements, although they simply consist of only responding to the Missouri reportable quantity, which is 50 gallons on land or any sheen on water. The agency's system to ensure regulatory compliance consists of contract language, pre-activity planning processes, training, and monitoring.

MDC has a written policy in place to comply with social laws. The policy includes language concerning gender equality and diversity inclusion. The agency has received no communication from interested parties concerning it or its supplier's performance relative to ILO core conventions.

Objective 12-Forestry Research, Science and Technology:

MDC has a substantial Resource Science Division, responsible for coordinating and conducting research on a variety of forest and wildlife related topics. One of the most significant pieces of research is the Missouri Forest Ecosystem Project, which is taking a long-term look at the impact of logging on a variety of ecosystem functions. The agency is involved in a remote sensing project (MOTUS) for a number of migratory birds and bats to determine migration patterns. MDC contributes a considerable amount of money to research efforts, both internally and externally. The agency has developed growth and drain assessments and the economic impacts of its operations.

Objective 13-Training and Education:

The agency has a statement of commitment to the SFI standard that is available to all employees on the MDC intranet. All new employees are required to receive SFI orientation training. Other training, such as BMPs, T&E species, aesthetics, etc. are conducted as needed. Training records are greatly improved since last year, in response to an opportunity for improvement. The agency requires loggers to have at least one person on each job who maintains current training status. MDC's written agreement with loggers contains a requirement for the use of qualified loggers. All loggers are required to have someone on each job who is either trained or a Master Certified logger to bid on an MDC sale, adding preference points if the buyer is a Master Certified logger. They must provide evidence of training at the time the contract is executed.

Objective 14-Community Involvement and Landowner Outreach:

There is no existing SIC in Missouri, although that may soon change with the addition of one other SFI certified entity in the state. It may create an SIC in conjunction with another mid-western state. The agency has a landowner assistance program that provides a wealth of information to landowners, including the conservation of biological diversity and the protection of T&E and species of concern. MDC provides financial assistance to Forest Releaf of Missouri, which distributes free trees for planting, and the Forest and Woodland Association of Missouri, which promotes healthy, productive, and sustainable forests in the state. The Missouri Managed Woods program promotes the conservation of forestland. MDC is very involved in public outreach, this being another focus area of the agency. The agency has a process to respond to public inquiries.

Objective 15: Public Land Management Responsibilities:

The agency is required to get input from the public and adjoining landowners as part of its area planning process. This is a formal process, but also includes opportunities during public outreach efforts.

Objective 16-Communications and Public Reporting:

MDC's fourth surveillance audit report as found on the SFI, Inc. website as required for public review. The agency just submitted its 2021 SFI annual progress report prior to the extended deadline established by SFI, Inc. MDC has the GIS and accomplishment (RAPTOR) capabilities to provide information to complete the report.

Objective 15-Management Review and Continual Improvement:

MDC has developed a system for collecting information to provide to management to evaluate the agency's conformance to the SFI standard. The agency conducts internal audits which it uses to judge its conformance and provides this information to management. MDC conducts a review of the progress towards achieving SFI objectives during monthly staff meetings and quarterly manager meetings.

Findings

Previous non-conformances:

No non-conformances were issued during the previous audit

Non-conformances:

No non-conformances were issued during this audit.

Opportunities for Improvement:

Two opportunities for improvement were issued. These should be considered in light of how they may affect conformance in the future.

1. PM 3.1, Ind. 3: The discrepancies in recording findings on the inspection form did not indicate a failure to properly inspect harvest jobs, so it does not constitute a non-conformance. However, the agency needs to address the discrepancies on how it records inspection data.
2. PM 9.2, Ind. 3: The agency has developed a program to identify and address its carbon emissions. It has quantified stage 1 and stage 2 emissions but has not yet identified emissions from its contractors.

Notable Practices:

One notable practice was issued.

1. PM 4.2, Ind. 1: The natural history staff took it upon itself to condense 500 plus pages of a bat HCP into a two-page operational manual that can easily be used by foresters to achieve the conservation measures necessary to meet the requirements of the HCP.

MDC is using the SFI logo on its website with approval from SFI, Inc. It does not intend to use the BVC logo.

SFI reporting:

The fourth surveillance audit report was found on the SFI, Inc. website as required for public review.

Review of Previous Audit Cycle

MDC received two minor non-conformances during their initial audit but have performed very well since then. No non-conformances have been issued since the initial.

Conclusions

Since no non-conformances were issued, MDC was issued a recommendation for immediate certification to the SFI 2022 Forest Management Standard.

SEE SF61 FOR AUDIT NOTES

Summary of Audit Findings:									
Audit Date(s):		From: August 30, 2022				To: September 2, 2022			
Number of SF02's Raised:			Major:		0		Minor:		1
Is a follow up visit required:		Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Date(s) of follow up visit:			
Follow-up visit remarks:									
Team Leader Recommendation:									
Corrective Action Plan(s) Accepted		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>	Date:	
Proceed to/Continue Certification		Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>	Date:	9/2/2022
All NCR's Closed		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>	Date:	
Standard audit conducted against:									
1)	SFI 2022 FM Standard			3)					
2)				4)					
Team Leader (1):		Team Members (2,3,4...)							
Richard Boitnott; CF		2)							
		3)							
		4)							
		5)							
Scope of Supply: (scope statement must be verified and appear in the space below)									
land management on Department of Conservation owned land in the state of Missouri									
Accreditation's		ANAB							
Number of Certificates		1							
Proposed Date for Next Audit Event									
Date	Late September, 2023								
Audit Report Distribution									
MDC : Marty Calvert-marty.calvert@mdc.mo.gov									
BVC: Brenda Come-brenda.come@us.bureauveritas.com									

Clause	Audit Report
Opening Meeting	<p>Participants: Marty Calvert, Rich Blatz, Justine Gartner, Bob Rives, Angela George, Mike Morris, Dominic Stelzer, Chris Riggert, Chris Newbold, Steve Burbach</p> <p>Discussions:</p> <ul style="list-style-type: none"> ➤ Introductions ➤ Scope of the audit ➤ Audit schedule/plan ➤ Nonconformance types – Major / Minor ➤ Review of previous nonconformances - 0. ➤ Process approach to auditing and audit sampling ➤ Confidentiality agreement ➤ Termination of the audit ➤ Appeals process ➤ Closing meeting timing
Closing Meeting	<p>Participants: Marty Calvert, Rich Blatz, Justine Gartner, Mike Morris, Steve Orchard, Alexis Kiepe, Clay Jenson, David Rowald</p> <p>Discussions:</p> <ul style="list-style-type: none"> ➤ Introductions and appreciation for selecting Bureau Veritas Certification. ➤ Review of audit process - process approach and sampling. ➤ Review of OFIs and System Strengths ➤ Nonconformances - 0 ➤ Date for next audit. ➤ Reporting protocol and timing