

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

*Michigan Department of Natural Resources*  
*Michigan State Forests*  
Michigan, USA

**SCS-FM/COC-00090N**

P.O. Box 30452 -  
Lansing, MI 48909-7952 -  
David Price, MI DNR Forest Resources Division -  
[priced1@michigan.gov](mailto:priced1@michigan.gov)

| CERTIFIED   | EXPIRATION  |
|-------------|-------------|
| 31/Dec/2010 | 30/Dec/2015 |

|                     |
|---------------------|
| DATE OF FIELD AUDIT |
| 7-9/Oct/2014        |
| DATE OF LAST UPDATE |
| 05/Jan/2015         |

SCS Contact:  
**Brendan Grady** | Director  
Forest Management Certification  
+1.510.452.8000  
[bgrady@scsglobalservices.com](mailto:bgrady@scsglobalservices.com)

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## Foreword

| Cycle in annual surveillance audits  |   |   |  |
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| <input type="checkbox"/> 1 <sup>st</sup> annual audit                            | <input type="checkbox"/> 2 <sup>nd</sup> annual audit | <input type="checkbox"/> 3 <sup>rd</sup> annual audit | <input checked="" type="checkbox"/> 4 <sup>th</sup> annual audit |
| Name of Forest Management Enterprise (FME) and abbreviation used in this report: |   |   |  |
| Michigan Department of Natural Resources (MDNR)                                  |   |   |  |

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

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

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

### Organization of the Report

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

























































































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|  |    | <p>road use and maintenance and unauthorized gating and signing of public land. Additional cases have been resolved through the continuation of the “Encroachment Resolution Initiative” (ERI) for the purpose of resolving some historical and structural trespass cases.</p> <p>149 of 192 ERI cases have been resolved. Resolution of the remaining 43 ERI cases is in progress (27 of these cases are on FRD managed lands). These cases are awaiting final surveys, payment by the private landowner, or recording of deeds. MDNR continues to resolve trespasses as it becomes aware of them. 118 trespass cases have been resolved this year, the majority of which were resolved with restoration. MDNR trespass database tracks all resolved cases. In addition, the Director will be approving new trespass policy and procedure this fiscal year.</p> |
| <b>2.3.b</b> The forest owner or manager documents any significant disputes over tenure and use rights.  | C  | See 2.3.a.   |
| <b>Principle #3: The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.</b>  |    |  |
| <b>3.1. Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.</b>   | NE |  |
| <b>3.2. Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.</b>   | C  |  |
| <b>3.2.a</b> 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  | <p>MDNR did not report any management activities that impacted the legal rights or other binding agreements with tribes to the FMU.</p> <p>Interviews with tribal representatives did not indicate any new legal or other binding agreements to the FMU. MDNR staff interviewed demonstrated knowledge of a recent agreement prepared in 2007 intended to streamline the implementation of treaty obligations with tribes.</p>   |
| <b>3.2.b</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  | MDNR staff presented training records at all three districts showing that staff had taken archaeological site identification and protection training (HAL training). While only one of the archaeological sites visited in 2014 was tribal, MDNR staff maintained buffers around all   |

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|  |    | archaeological sites during management activities (e.g., homestead sites within wildlife openings in Shingleton). In the Escanaba unit, MDNR detected a burial mound during scheduled review for compartment 23. This area was inspected so that staff would be aware of the need to maintain buffers around it should any harvests occur. The compartment review did not contain any detailed information on the site as to protect its confidentiality.   |
| <b>3.3. 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.</b>   | NE |   |
| <b>3.4. 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.</b> | NE |   |
| <b>Principle #4: Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.</b>  |    |   |
| <b>4.1. The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.</b>   | NE |   |
| <b>4.2. Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.</b>   | C  |   |
| <b>4.2.a</b> 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  | There were 11 accidents on the FMU through Q3 FY2014 that were reported to the required MIOSHA log. OSHA and labor postings were verified at all three districts visited during the 2014 assessment. MDNR presented training records at every district office demonstrating that some trainings occurred relating to health and safety compliance (e.g., Logout/ Tag out, Forklift certification, and New Employee Orientation in Newberry and Shingleton). |
| <b>4.2.b</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  | While at one site in Newberry (One Pond Mix 42-016-13), the auditor observed logging contractors and repairmen walking through the site without wearing hardhats and there was no first aid kit onsite. In Escanaba, the auditor  |

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|  |           | <p>observed limited poor hand-felling technique on one site within the harvest unit (Lotta Sugar, Compartment 1). It was discovered through interviews with the loggers that the logger had little experience with hand-felling and had recently received additional training from the timber sale purchaser (Timber Products Company, SCS-COC-000573). The loggers also had no first aid kit or spill kit onsite. All other active harvest sites visited had all required safety equipment onsite and being used properly at appropriate times.</p> <p>Through discussions with MDNR staff, it was determined that much of these issues could not be examined unless an accident occurred and were limited given the number of active timber sales visited. MDNR is currently doing what it can to ensure contractor safety with its contracts. Few additional actions may help at this time without increasing MDNR's liability.</p> <p>Contracts examined for both timber harvests and timber marking contain line items that require contractors to adhere to applicable safety laws and regulations (ex., Blanket Purchase Order contract item 2.203; Purchase Order items 21 and 23; and State Forest Timber Sale Contract item 6).</p> |
| <p><b>4.2.c</b> The forest owner or manager hires well-qualified service providers to safely implement the management plan.</p>  | <p>C</p>  | <p>All contractors are required to submit evidence of having proper qualifications and/or training to be able to bid on state contracts. MDNR sponsors safety training for loggers through the SFE program.</p>   |
| <p><b>4.3 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).</b></p>                                     | <p>NE</p> |   |
| <p><b>4.4. 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.</b></p> | <p>C</p>  |   |
| <p><b>4.4.a</b> The forest owner or manager understands the likely social impacts of management activities, and incorporates this understanding into management</p>  | <p>C</p>  | <p>No formal research has been conducted since the last evaluation. However, the MDNR is continuing discussions with faculty at Michigan State University (MSU) regarding</p>   |

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| <p>planning and operations. Social impacts include effects on:</p> <ul style="list-style-type: none"> <li>• Archeological sites and sites of cultural, historical and community significance (on and off the FMU);</li> <li>• Public resources, including air, water and food (hunting, fishing, collecting);</li> <li>• Aesthetics;</li> <li>• Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health;</li> <li>• Community economic opportunities;</li> <li>• Other people who may be affected by management operations.</li> </ul> <p>A summary is available to the CB.</p> |          | <p>the incorporation of social science methodologies into future monitoring protocols, as confirmed through interviews with MDNR staff. No decisions have been made yet on whether or not MDNR will have MSU conduct a new social impact assessment or monitoring evaluation.</p> <p>Currently, MDNR’s ‘DNRE Forest Resources Assessment and Strategy’ addresses social impacts and provides a summary.</p>   |
| <p><b>4.4.b</b> The forest owner or manager seeks and considers input in management planning from people who would likely be affected by management activities.</p>   | <p>C</p> | <p>In FY14, MDNR’s Forest Resource Division (FRD) received 32 logged-letters, 26 legislative requests, and 317 e-mail requests for information. These requests for information are forwarded to appropriate staff and addressed as a part of routine work responsibilities. FRD also received and addressed 5 requests for information under the Freedom of Information Act (FOIA) in FY 14.</p> <p>Other social interactions include:</p> <ul style="list-style-type: none"> <li>• Compartment reviews for Year of Entry 2015 were held in each Forest Management Unit.</li> <li>• Over 49,000 friends on the MDNR Facebook account.</li> <li>• Nearly 20,000 Twitter followers with over 6,200 tweets on the general MDNR Twitter feed, and over 4,000 followers with more than 1,600 tweets for the Upper Peninsula-specific feed.</li> </ul> <p>Through GovDelivery the MDNR provided email communication on the following subjects:</p> <ul style="list-style-type: none"> <li>• Assistance to Private Forestland Owners: 7,572</li> </ul> |

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|   |          | <p>subscribers</p> <ul style="list-style-type: none"> <li>• Forest Health: 6,936 subscribers</li> <li>• Forest Planning: 6,722 subscribers</li> <li>• Local Input on State Forests: 6,680 subscribers</li> <li>• Prescribed Burn Notices: 7,428 subscribers</li> <li>• Statewide MDNR News: 30,908 subscribers</li> <li>• Upper Peninsula MDNR News: 17,890 subscribers</li> <li>• Urban and Community Forestry Programs: 5,920 subscribers</li> <li>• Wildfire Incident Updates: 9,284 subscribers</li> </ul> <p>A public comment period for an updated network of Ecological Reference Areas and Dedicated Habitat Areas is being presently being conducted, for which data are not yet available.</p> <p>Thousands of routine inquiries, comments, complaints via email and telephone calls that are received and respond to by District Forest Managers and Unit Managers, but these interactions are not comprehensively documented.</p> |
| <p><b>4.4.c</b> 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>  | <p>C</p> | <p>In 2011, MDNR developed unit-specific webpages for all divisions within the FMU so that interested public and adjacent landowners can access information and deliver comments to MDNR.</p> <p>The websites augment Open Houses and public service announcements in newspapers and on local radio stations. While more affirmative and focused (on adjacent or nearby landowners) would be more exemplary, the efforts undertaken by DNR are considered to be adequate for demonstrating conformity to this Indicator.</p>  |
| <p><b>4.4.d</b> For <i>public forests</i>, consultation shall include the following components:</p> <ol style="list-style-type: none"> <li>1. Clearly defined and accessible methods for public participation are provided in both long and short-term planning processes, including harvest plans and operational plans;</li> <li>2. Public notification is sufficient to allow interested stakeholders the chance to learn of upcoming opportunities for public review</li> </ol> | <p>C</p> | <p>The process for public participation is described within “Managing Michigan’s State Forest: Your Guide to Participation.” Public is notified of compartment reviews and open house meetings. Pre-inventory meetings are also open meetings, but are not currently listed at the website. Data used in decision making is available. Decisions can be appealed. FOIA process is used to respond to information requests. Tribal information is not subject to FOIA.</p>   |

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| <p>and/or comment on the proposed management;</p> <p>3. An accessible and affordable appeals process to planning decisions is available.</p> <p>Planning decisions incorporate the results of public consultation. All draft and final planning documents, and their supporting data, are made readily available to the public.</p> |    |  |
| <p><b>4.5. 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.</b></p>                         | NE |  |
| <p><b>Principle #5: 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.</b></p>   |    |  |
| <p><b>5.1. 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.</b></p>  | NE |  |
| <p><b>5.2. Forest management and marketing operations should encourage the optimal use and local processing of the forest’s diversity of products.</b></p>  | NE |  |
| <p><b>5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</b></p>   | NE |  |
| <p><b>5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</b></p>   | NE |  |
| <p><b>5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.</b></p>   | NE |  |
| <p><b>5.6. The rate of harvest of forest products shall not exceed levels which can be permanently sustained.</b></p>   | C  |  |

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| <p><b>5.6.a</b> In FMUs where products are being harvested, the landowner or manager calculates the sustained yield harvest level for each sustained yield planning unit, and provides clear rationale for determining the size and layout of the planning unit. The sustained yield harvest level calculation is documented in the Management Plan.</p> <p>The sustained yield harvest level calculation for each planning unit is based on:</p> <ul style="list-style-type: none"> <li>• documented growth rates for particular sites, and/or acreage of forest types, age-classes and species distributions;</li> <li>• mortality and decay and other factors that affect net growth;</li> <li>• areas reserved from harvest or subject to harvest restrictions to meet other management goals;</li> <li>• silvicultural practices that will be employed on the FMU;</li> <li>• management objectives and desired future conditions.</li> </ul> <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>C</p> | <p>Regional State Forest Management Plans specify an average annual proposed harvest rate of 61,128 acres over the next decade (which is expected to vary for each year of entry), with a sustainable harvest of approximately 1,050,000 cords.</p> <p>There were no updates to the AAH in 2014. Emerald Ash Borer and Beech Bark Disease salvage harvests of infected stands have continued over the past two years, with corresponding updating of the inventory and adjustment of the annual Plan of Work.</p>  |
| <p><b>5.6.b</b> Average annual harvest levels, over rolling periods of no more than 10 years, do not exceed the calculated sustained yield harvest level.</p>  | <p>C</p> | <p>61,191 acres were sold for harvest in FY 2012-13 with an estimated volume of 921,600 cords. The most recent maximum sustained yield estimate for state forest timber production is based upon a calculation of approximate current state forest annual net growth from lands that are suitable for timber production, which is about 1,050,000 cords. Extensive out-of-YOE salvage harvests of Emerald Ash Borer and Beech Bark Disease affected stands continued this year in the northern lower peninsula region which contributed to the substantially higher volume in FY</p> |



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|  |    | 2012-13. Corresponding updates of the forest inventory will account for these, as reported by MDNR staff.  |
| <p><b>5.6.c</b> 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  | While ash and beech salvage harvests are being conducted more routinely due to pests and disease, unaffected stands continue to receive treatments within five years of their scheduled harvest re-entry evaluations, as confirmed through field reviews and interviews with staff.  |
| <p><b>5.6.d</b> 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> | C  | <p>There are no NTFPs that are being commercially managed and made available for commercial harvesting.</p> <p>The <a href="#">Michigan Ginseng Act</a> was passed in 1994 to regulate the harvest, sale, and distribution of American Ginseng in Michigan. This act covers both cultivated and wild ginseng, and makes it unlawful to take American ginseng from the wild without a permit from the MDNR.</p> |
| <p><b>Principle #6: 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.</b></p>  |    |  |
| <p><b>6.1. 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.</b></p>   | NE |  |
| <p><b>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,</b></p>   | C  |  |

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| <p><b>trapping, and collecting shall be controlled.</b></p>  |          |  |
| <p><b>6.2.a</b> If there is a likely presence of RTE species as identified in Indicator 6.1.a then either a field survey to verify the species' presence or absence is conducted prior to site-disturbing management activities, or management occurs with the assumption that potential RTE species are present.</p> <p>Surveys are conducted by biologists with the appropriate expertise in the species of interest and with appropriate qualifications to conduct the surveys. If a species is determined to be present, its location should be reported to the manager of the appropriate database.</p>   | <p>C</p> | <p>There have been no surveys for RTE species in FY14. A proposed update to the network of Ecological Reference Areas (ERAs) and Dedicated Habitat Areas has been completed, and is in the process of public review. Some new areas were provided to the Archeological Concerns Database in FY14. Some Type 1 and Type 2 Old Growth Special Conservation Areas (SCAs) were preliminarily verified in FY 14 field inventory.</p> <p>As confirmed through a review of Compartment Reviews for harvest areas visited in the 2014 audit, wildlife staff reviewed each harvest and project (i.e., FTPs or Forest Treatment Proposals) for the presence of RTE species or potential RTE species habitat.</p>   |
| <p><b>6.2.b</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. <b>Conservation zones</b> and/or <b>protected areas</b> are established for RTE species, including those S3 species that are considered rare, where they are necessary to maintain or improve the short and long-term viability of the species. Conservation measures are based on relevant science, guidelines and/or consultation with relevant, independent experts as necessary to achieve the conservation goal of the Indicator.</p> | <p>C</p> | <p>Management activities include: timber sales, prescribed burns, mowing, and non-commercial and commercial site preparation and tree plantings. The extent of these activities is not routinely tracked on a large scale, and would require a specific GIS analysis.</p> <p>Measures taken to protect any RTE species, habitats and/or plant communities is evaluated on a case by case basis during the Compartment inventory process using SCA, ERA, and HCVA layers in MDNR's GDSE and Rare Species guidelines. Databases for RTE species are routinely checked for ROW maintenance requests, use permits, event permits, burn plans, etc., and special management requirements are provided when known species are identified for an area.</p> <p>As confirmed through interviews with wildlife and forestry staff, MDNR is revising guidelines for Northern goshawk and Red-shouldered hawk based on the results of current management practices. Guidelines for conservation zones based on regional information and species behavior may be include different levels of retention and foraging habitat.</p> <p>Since August 2012, MDNR has been using interim guidelines for Red-shouldered hawk. These establish new minimum circular nest-buffers for active nests, which include an inner eight-acre zone of no harvest, and an outer zone in which</p> |

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|   |   | no management activities are to take place between March 1 and August 15.  |
| <b>6.2.c</b> 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 | MDNR's recovery efforts observed during the 2014 audit include large, landscape-level Jack pine ( <i>Pinus banksiana</i> ) zones managed for Kirtland's Warbler habitat in the Newberry district. Large snags and declining trees are maintained for raptors and other species that depend on structure or woody debris during parts of their lifecycles, as observed in all three districts. The Shingleton unit does not have mills that can take chip material, which means that there is usually more down woody debris material available for species of concern, such as amphibians and wood turtles.  |
| <b>6.2.d</b> 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 | <p>Measures taken to protect any RTE species, habitats and/or plant communities is evaluated on a case by case basis during the Compartment inventory process using SCA, ERA, and HCVA layers in MDNR's GDSE and Rare Species guidelines. Data bases for RTE species are routinely checked for ROW maintenance requests, use permits, event permits, burn plans, etc., and special management requirements are provided when known species are identified for an area.</p> <p>A limited hunt for wolves (<i>Canis lupus</i>) was conducted in the Upper Peninsula in FY14, as authorized by the Michigan Natural Resources Commission subsequent to USFWS de-listing and MDNR designation of the species as a game animal. Harvest numbers were strictly limited and targeted toward areas with high wolf-human conflicts, with mandatory reporting of all harvested animals. The hunt concluded with fewer animals taken than planned, as confirmed through interviews with MDNR staff.</p> <p>MDNR also conducts an annual harvest of state-threatened lake sturgeon on Black Lake and Otsego Lake, where the state forest has a limited riparian interest. This is a controlled harvest (with strict harvest limits and reporting requirements) of a threatened species where they are threatened on a statewide-scale, but secure and locally abundant in these localized areas.</p> |
| <b>6.3. Ecological functions and values shall be</b>  | C |  |

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| <p><b>maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.</b></p>  |          |  |
| <p><b>6.3.a.1</b> The forest owner or manager maintains, enhances, and/or restores under-represented <b>successional</b> stages in the FMU that would naturally occur on the types of sites found on the FMU. Where old growth of different community types that would naturally occur on the forest are under-represented in the landscape relative to natural conditions, a portion of the forest is managed to enhance and/or restore old growth characteristics.</p>         | <p>C</p> | <p>MDNR has conducted an analysis to update the network of Ecological Reference Areas on MDNR lands and some non-MDNR ownerships to include common natural communities, and has updated a network of Dedicated Habitat Areas on MDNR lands to provide habitat for species that required interior core forest.</p> <p>Area retention in timber harvests (including aspen) are now tracked with site condition coding in the forest inventory. See response to CAR 2013.1.</p> <p>Some prescribed burns were conducted on the state forest in FY 2014 to enhance some plant species composition and abundance.</p> |
| <p><b>6.3.a.2</b> When a <b>rare ecological community</b> 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, <b>conservation zones</b> and/or <b>protected areas</b> are established where warranted.</p>  | <p>C</p> | <p>All documented rare ecological communities have been included in the updated MDNR network of Ecological Reference Areas. Work Instruction 1.4 provides guidance for land managers that conform to the intent of this indicator. Many rare ecological communities are wetlands or areas near wetlands that are rarely entered for harvests. If entered, areas within the unit are delineated for rare plant protection. Rare communities are normally detected during harvest planning and measures are devised to protect them or modify management practices to maintain or enhance them.</p>                |
| <p><b>6.3.a.3</b> When they are present, management maintains the area, structure, composition, and processes of all <b>Type 1</b> and <b>Type 2 old growth</b>. Type 1 and 2 old growth are also protected and buffered as necessary with conservation zones, unless an alternative plan is developed that provides greater overall protection of old growth values.</p> <p>Type 1 Old Growth is protected from harvesting and road construction. Type 1 old growth is also</p> | <p>C</p> | <p>No harvests occur in old growth designations. Treatment of stands adjacent to OG stands are evaluated on a case by case basis during the compartment review process.</p>  |

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| <p>protected from other timber management activities, except as needed to maintain the ecological values associated with the stand, including old growth attributes (e.g., remove exotic species, conduct controlled burning, and thinning from below in dry forest types when and where restoration is appropriate).</p> <p>Type 2 Old Growth is protected from harvesting to the extent necessary to maintain the area, structures, and functions of the stand. Timber harvest in Type 2 old growth must maintain old growth structures, functions, and components including individual trees that function as refugia (see Indicator 6.3.g).</p> <p>On public lands, old growth is protected from harvesting, as well as from other timber management activities, except if needed to maintain the values associated with the stand (e.g., remove exotic species, conduct controlled burning, and thinning from below in forest types when and where restoration is appropriate).</p> <p>On American Indian lands, timber harvest may be permitted in Type 1 and Type 2 old growth in recognition of their sovereignty and unique ownership. Timber harvest is permitted in situations where:</p> <ol style="list-style-type: none"> <li>1. - Old growth forests comprise a significant portion of the tribal ownership.</li> <li>2. - A history of forest stewardship by the tribe exists.</li> <li>3. - High Conservation Value Forest attributes are maintained.</li> <li>4. - Old-growth structures are maintained.</li> <li>5. - Conservation zones representative of old growth stands are established.</li> </ol> |  |  |
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| <p>6. Landscape level considerations are addressed.</p> <p>7. Rare species are protected.</p>  |          |   |
| <p><b>6.3.b</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>  | <p>C</p> | <p>Most commercial harvest prescriptions benefit wildlife habitat, as confirmed through interviews with wildlife staff. During compartment review, wildlife staff review scheduled harvest areas for potential wildlife habitat amendments. Many non-commercial treatments such as mowing, burning, and planting of mast species and under-represented conifer species are done for wildlife habitat purposes. There have been 102 prescribed fires on 10,287 acres on state forest lands for purposes of fuel reduction, site preparation, habitat restoration, and invasive species control in 2014 (as of July 29, 2014). The WLD Annual Report for FY 2013 provides additional detail on wildlife habitat work.</p> |
| <p><b>6.3.c</b> Management maintains, enhances and/or restores the plant and wildlife habitat of <b>Riparian Management Zones (RMZs)</b> to provide:</p> <ul style="list-style-type: none"> <li>a) habitat for aquatic species that breed in surrounding uplands;</li> <li>b) habitat for predominantly terrestrial species that breed in adjacent <b>aquatic habitats</b>;</li> <li>c) habitat for species that use riparian areas for feeding, cover, and travel;</li> <li>d) habitat for plant species associated with riparian areas; and,</li> <li>e) stream shading and inputs of wood and leaf litter into the adjacent aquatic ecosystem.</li> </ul> | <p>C</p> | <p>State BMPs are followed for all management activities near riparian areas, but these are not specifically tracked. Buffer zones are established and treatments either excluded or modified to protect water quality. When required, stream crossing permits and stream restoration projects are obtained from the MI DEQ. In 2014, interviews with fisheries staff indicate that the minimum buffer of 100 ft. for perennial water courses may be extended to protect stream shading and water infiltration depending on slope or presence of native brook trout.</p>  |
| <p><b>Stand-scale Indicators</b></p> <p><b>6.3.d</b> Management practices maintain or enhance plant species composition, distribution and frequency of occurrence similar to those that would naturally occur on the site.</p>   | <p>C</p> | <p>Auditors observed several pine types, northern hardwood, aspen, mixed conifer, lowland hardwood, and conifer-hardwood swamp harvests in 2014. Levels of retention were consistent with maintaining larger individuals and seed sources on sites where even-aged harvests occurred. In selection harvests, all species were retained to varying degrees. However, most species have seed sources onsite or nearby and some have sprouting capabilities (e.g., maple species, cherry, beech). Tracking of area aspen retention</p>   |

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|  |   | within and outside of harvest units is accomplished by site condition coding in the web-based GIS inventory system, MiFI.   |
| <p><b>6.3.e</b> 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. <b>Native species</b> suited to the site are normally selected for regeneration.</p>  | C | All seed used at the MDNR nursery originates from Michigan. Purchased red pine seedlings originate from Ontario. Wildlife Division under-plantings of oak and mesic conifers are sourced from Michigan or the Great Lakes region. Plantings of Beech Bark Disease resistant beech originate from cuttings in Michigan. In fact, some of these are being propagated at Forest Service research nurseries in Ohio.  |
| <p><b>6.3.f</b> Management maintains, enhances, or restores habitat components and associated stand structures, in abundance and distribution that could be expected from naturally occurring processes. These components include:</p> <ul style="list-style-type: none"> <li>a) large live trees, live trees with decay or declining health, <b>snags</b>, and well-distributed coarse down and dead woody material. <b>Legacy trees</b> where present are not harvested; and</li> <li>b) vertical and horizontal complexity.</li> </ul> <p>Trees selected for <b>retention</b> are generally representative of the dominant species found on the site.</p> | C | <p>See response to Minor CAR 2013.1. Planned within stand retention can now be better tracked using the MiFI system.</p> <p>In 2014, auditors observed snags retained on all harvest sites. At beech and ash salvage units, not all individuals are harvested. Those that do not survive the disease/ pest will likely become snags well before the next scheduled entry. Woody debris was abundant on most sites. While some sites in Newberry were chipped, slash was retained distributed over the sites and in some clumps around pulled skid trails.</p> <p>More sites visited in 2014 were mixed species, with the exception of northern hardwood and jack pine stands that clearly had a single dominant species or species group. On mixed species stands, retention includes most species, but certain species may be favored for greater retention or removal depending on the size of the unit and adjacent stands. For example, on a lowland hardwood unit observed in Shingleton, more overstory red maple was removed on a stand that was 10-15 acres. However, red maple was already sprouting and adjacent stands included mature maples. Due to the small unit size, diverse species mix, red maple’s sprouting ability, and retention of den/ cavity trees, this site was low risk for failure to capture any values associated with allowing red maple to senesce.</p> |
| <p><b>6.3.g.1</b> In the Southeast, Appalachia, Ozark-Ouachita, Mississippi Alluvial Valley, and Pacific Coast Regions, when <b>even-aged systems</b> are</p>  | C | 27,860 acres of even-aged harvests occurred in fiscal year 2012-13. There were no identified issues regarding within-stand retention during the 2014 audit. Live trees included   |

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| <p>employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit as described in Appendix C for the applicable region.</p> <p>In the Lake States Northeast, Rocky Mountain and Southwest Regions, when even-aged silvicultural systems are employed, and during salvage harvests, live trees and other native vegetation are retained within the harvest unit in a proportion and configuration that is consistent with the characteristic natural disturbance regime unless retention at a lower level is necessary for the purposes of restoration or rehabilitation. See Appendix C for additional regional requirements and guidance.</p>   |           | <p>in clumps and dispersed individuals were observed in aspen and jack pine stands in all districts, as well as a stand in Shingleton classified as a one-step shelterwood with reserves. Wildlife staff approved of all retention strategies employed within harvest units.</p> |
| <p><b>6.3.g.2</b> 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"> <li>1. Is developed by qualified experts in ecological and/or related fields (wildlife biology, hydrology, landscape ecology, forestry/silviculture).</li> <li>2. Is based on the totality of the <b>best available information</b> including peer-reviewed science regarding natural disturbance regimes for the FMU.</li> <li>3. Is spatially and temporally explicit and includes maps of proposed openings or areas.</li> <li>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.</li> <li>5. Is reviewed by independent experts in wildlife biology, hydrology, and landscape ecology, to confirm the preceding findings.</li> </ol> | <p>NA</p> | <p>There are no departures from even-aged harvest limits.</p>  |
| <p><b>6.3.h</b> The forest owner or manager assesses the risk of, prioritizes, and, as warranted, develops and</p>   | <p>C</p>  | <p>MDNR reported the following highlights during 2014:</p> <ul style="list-style-type: none"> <li>• PRD staff did visual Asian Longhorned Beetle</li> </ul>  |



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| <p>implements a strategy to prevent or control <b>invasive species</b>, including:</p> <ol style="list-style-type: none"> <li>1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems;</li> <li>2. implementation of management practices that minimize the risk of invasive establishment, growth, and spread;</li> <li>3. eradication or control of established invasive populations when feasible: and,</li> <li>4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species.</li> </ol> |  | <p>inspections in State Parks and Recreation Areas. They also looked for Oak Wilt, Hemlock Woolly Adelgid, Thousand Cankers Disease, and other invasive species. Forest Health Program staff provided the training to inspectors at the beginning of the season and technical support throughout the survey period. Funding for this work was provided by federal partners from USDA-FS and USDA-APHIS through the 2008 Farm Bill, administered by MDARD, and specific USDA-FS grants.</p> <ul style="list-style-type: none"> <li>• Monitored spotted knapweed biocontrol on Bullock Ranch, Camp Grayling and Houghton Lake Wildlife Research Station.</li> <li>• Phragmites treatments in Mackinaw, Luce, Chippewa, Schoolcraft, Delta and Menominee Counties on state and private lands. Approximately 450 acres treated or retreated by Cooperative Weed Management Areas. Nearly half of the sites are on state land.</li> <li>• European frogbit survey of 2,000 acres and rapid response hand removal in Munuscong Bay led by Wildlife Division.</li> <li>• Experimental chemical control of European frogbit in less than 2 acres in Munuscong Bay.</li> <li>• 12,500 pounds of garlic mustard removed in the Upper Peninsula on public and private land led by Cooperative Weed Management Areas. Half came from state forest land.</li> <li>• Phragmites, Japanese knotweed, garlic mustard and oriental bittersweet treatments in Manistee, Benzie, Leelanau, Grand Traverse and Kalkaska County state forest land led by Cooperative Weed Management Area. Additional control of <i>Phragmites</i> spp. on private land adjacent to state forest land led by Wildlife Division.</li> <li>• European frogbit survey of 1,000 acres and rapid response hand removal and chemical control in Fletcher’s Pond.</li> </ul> |
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|  | <ul style="list-style-type: none"> <li>• Flowering rush detection at Fletcher’s Pond. Chemical spot control.</li> <li>• Phragmites and other invasive plant treatments on Beaver Island Archipelago – public and private lands – led by Beaver Island Homeowner’s Association and Wildlife Division.</li> <li>• Surveyed 35 hibernacula on a variety of ownerships statewide for detection of <i>Geomyces destructans</i> (fungus that causes White Nose Syndrome or WNS). Implemented response plan when WNS was detected early in the year. Confirmed cases in upper Peninsula and the northern Lower Peninsula</li> <li>• Mute Swan control on coastal areas and inland lakes and rivers on state and private lands.</li> </ul> <p>Maintained the Midwest Invasive Species Information Network, the database of invasive species for Michigan and the Midwest. Worked to implement an EPA funded project to connect invasive species databases in the cloud.</p> <ul style="list-style-type: none"> <li>• Hands-on and virtual training for Aquatic Invasive Species Identification for 115 state staff.</li> <li>• Worked to develop Cooperative Weed Management Areas in the gaps in the northern Lower Peninsula. Assisted with prioritization, boundary identification, and networks.</li> <li>• Continued to develop the Michigan Invasive Species Coalition, a group to support the work of Cooperative Weed Management Areas and other collaborative partners working to control invasive species.</li> </ul> <p>As observed on a <i>Phragmites</i> control area in Shingleton, MDNR staff cooperated with county conservation division to implement an early detection and rapid response to a small infestation. This site will be monitored over time per MDNR monitoring protocols for invasive species.</p> |
| <p><b>6.3.i</b> In applicable situations, the forest owner or manager identifies and applies site-specific fuels</p> | <p>There have been 102 prescribed fires on 10,287 acres on state forest lands for purposes of fuel reduction, site</p>   |

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| <p>management practices, based on: (1) natural fire regimes, (2) risk of wildfire, (3) potential economic losses, (4) public safety, and (5) applicable laws and regulations.</p>  |           | <p>preparation, habitat restoration, and invasive species control in 2014 (as of July 29, 2014). For the same period, there have been a statewide total of 152 wildfires that have burned 521 acres.</p> |
| <p><b>6.4. 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.</b></p>   | <p>NE</p> |  |
| <p><b>6.5 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.</b></p>   | <p>NE</p> |  |
| <p><b>6.6. 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.</b></p> | <p>NE</p> |  |
| <p><b>6.7. 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.</b></p>  | <p>NE</p> |  |
| <p><b>6.8. Use of biological control agents shall be documented, minimized, monitored, and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.</b></p>  | <p>NE</p> |  |
| <p><b>6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid</b></p>   | <p>C</p>  |  |

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| <b>adverse ecological impacts.</b>  |    |   |
| <p><b>6.9.a</b> The use of <i>exotic species</i> is contingent on the availability of credible scientific data indicating that any such species is non-invasive and its application does not pose a risk to native biodiversity.</p>  | C  | <p>MDNR does not plant exotic tree species. Any exotic plants used are for cover crops to prevent erosion. Guidelines for selection of seed and are presented in Appendix E of Soil and Water Quality Manual, and in a flyer (revised Sept 2010) entitled: "Vegetation restoration of rights-of-way, well sites, and other cleared sited on State Forest land, Northern Lower Peninsula."</p> |
| <p><b>6.9.b</b> If exotic species are used, their provenance and the location of their use are documented, and their ecological effects are actively monitored.</p>   | C  | <p>Several non-native cover crop species are recommended for planting (e.g., annual rye, white Dutch clover), but these are recommended because of their non-invasive qualities. Planting recommendations clearly warn against using hay as mulch because of the risk of invasive seeds.</p>  |
| <p><b>6.9.c</b> The forest owner or manager shall take timely action to curtail or significantly reduce any adverse impacts resulting from their use of exotic species</p>  | C  | <p>If needed, this would be consistent with other efforts to defend against invasive exotics. So far, such control has not been necessary, as reported by MDNR staff.</p>   |
| <p><b>6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:</b><br/> <b>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.</b></p> | NE |   |
| <p><b>Principle #7: 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.</b></p>  |    |   |
| <p><b>Principle #8: 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.</b></p>   |    |   |
| <p><b>8.1</b> 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>  | NE |   |
| <p><b>8.2.</b> 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)</p>   | C  |   |

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| <p><b>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.</b></p>   |   |  |
| <p><b>8.2.a.1</b> 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 | <p>Regeneration surveys, compartment review field evaluations, FIA plot surveys, and forest health surveys all took place since the last audit and include the variables referenced in the indicator. Forest health surveys/reports are also discussed for Criterion 6.3.</p>  |
| <p><b>8.2.a.2</b> 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 | <p>Resource Damage Reports (RDR) are logged and tracked in the RDR database.</p> <p>Actual harvest levels, including any abnormal level of harvesting activity in response to, for instance, mortality, are tracked and well known to Departmental planners and managers</p> <p>MDNR expends considerable effort to monitoring pest and pathogen activity both at a large/strategic scale but also within the YOE/compartment review process.</p>  |
| <p><b>8.2.b</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 | <p>61,191 acres were sold for harvest in FY 2013 with an estimated volume of 921,600 cords, as reported by MDNR. This data is used to evaluate compliance to the calculated annual allowable harvest and make adjustments as necessary.</p>  |
| <p><b>8.2.c</b> The forest owner or manager periodically obtains data needed to monitor presence on the FMU of:</p> <ol style="list-style-type: none"> <li>1) Rare, threatened and endangered species and/or their <i>habitats</i>;</li> <li>2) Common and rare plant communities and/or habitat;</li> <li>3) Location, presence and abundance of invasive species;</li> <li>4) Condition of protected areas, set-asides and buffer zones;</li> <li>5) High Conservation Value Forests (see</li> </ol> | C | <p>Natural community surveys are schedule for 5-11 areas (including 2 acquisitions) of the State Forest by Michigan Natural Features Inventory in FY 2014 (see section 9.4(1)).</p> <p>MDNR foresters and biologists conduct an on-site assessment of each stand proposed for treatment in a year of entry (YOE) compartment. Determining the presence of RTE species and high quality natural plant communities is part of that assessment. The Michigan Natural Features Inventory (MNFI) maintains a database of the observations and locations of RTE species and plant communities. As part of the compartment review process, foresters and biologists consult this database to check for records of RTE species or high quality natural community occurrences, and to assess the potential impacts of proposed forest</p> |

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| <p>Criterion 9.4).</p>   |          | <p>treatments.</p> <p>The MDNR Wildlife Division monitors some wildlife populations by conducting or cooperating with wildlife surveys. The division annually surveys for: bald eagles, osprey, woodcock, waterfowl, Kirtland’s warbler, sharp-tailed grouse, and frogs &amp; toads. A biennial survey was conducted in 2013 for wolves and moose. Biennial surveys are in the process of being conducted in 2014 for black bear and elk. An annual bear bait survey is geographically restricted to Drummond Island. The Division uses annual registration of harvested animals to monitor for population changes in deer, elk, bear, otter, fisher, and marten. The Division also cooperates in the banding of woodcock, ducks, and geese, which provides another means of monitoring survival rates and population trends. Although these surveys generally have statewide or regional scopes, they all include significant amounts of state forest land.</p> |
| <p><b>8.2.d.1</b> 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.</p>  | <p>C</p> | <p>MDNR’s prescriptions are reviewed in the field at least biweekly during operations. Regeneration surveys are conducted as a part of monitoring natural and assisted regeneration 5-10 years post-harvest as scheduled in compartment calendars, as confirmed in interviews with state foresters and examination of harvest prescriptions for all three districts visited.</p>   |
| <p><b>8.2.d.2</b> A monitoring program is in place to assess the condition and environmental impacts of the forest-road system.</p>  | <p>C</p> | <p>Resource Damage Reports (RDR) are logged and tracked in the RDR database. Each district presented examples of RDR reports. MDNR is taking on a state-wide project to review stream-crossings for prioritizing upgrades, which may include replacing culverts with bridges or use of alternatively designed culverts.</p>  |
| <p><b>8.2.d.3</b> 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).</p> | <p>C</p> | <p>No new social studies were conducted in FY 2014. Nonetheless, the audit team concludes that MDNR, through other mechanisms, is maintaining current awareness of the socio-economic consequences of its management activities.</p>   |
| <p><b>8.2.d.4</b> Stakeholder responses to management activities are monitored and recorded as necessary.</p>  | <p>C</p> | <p>MDNR staff at local offices discussed day-to-day contacts with local elected officials, user-groups, and other</p>  |

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|  |    | interested parties during the 2014 audit.  |
| <b>8.2.d.5</b> Where sites of cultural significance exist, the opportunity to jointly monitor sites of cultural significance is offered to tribal representatives (see Principle 3).   | C  | MDNR implemented actions to invite the opportunity to jointly monitor sites of cultural significance to local tribes in its response to Minor CAR 2010.3 in 2011. Tribes and tribal representatives interviewed in 2014 did not express concerns over monitoring cultural sites. |
| <b>8.2.e</b> The forest owner or manager monitors the costs and revenues of management in order to assess productivity and efficiency.   | C  | Forest Resources Division has published an Accomplishments Report for FY 2013 that addresses productivity and efficiency of management areas under MDNR's jurisdiction.  |
| <b>8.3 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."</b>  | C  |  |
| <b>8.3.a</b> 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  | Refer to COC indicators for FMEs.  |
| <b>8.3.b</b> The forest owner or manager maintains documentation to enable the tracing of the harvested material from each harvested product from its origin to the point of sale.   | C  | Refer to COC indicators for FMEs.  |
| <b>8.4 The results of monitoring shall be incorporated into the implementation and revision of the management plan.</b>  | NE |  |
| <b>8.5 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.</b>  | NE |  |
| <p><b>Principle #9: 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.</b></p> <p><b>High Conservation Value Forests are those that possess one or more of the following attributes:</b></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</p> |    |  |

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| <b>patterns of distribution and abundance</b>   |   |   |
| <p><b>b) Forest areas that are in or contain rare, threatened or endangered ecosystems</b></p> <p><b>c) Forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control)</b></p> <p><b>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).</b></p>  |   |   |
| <b>9.1 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.</b>   | C |   |
| <p><b>9.1.a</b> 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> | C | MDNR’s Work Instruction 1.4 provides guidance for identification of HCVFs. The most significant change to MDNR’s HCV analysis was its identification of roadless areas consistent with the definition of HCV3, which has simply resulted in an identification of an HCV attribute that overlaps existing HCV areas (known in MDNR terminology as ERAs). See response to OBS 2013.5. |
| <b>9.1.b</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.  | C | See <b>OBS 2014.1.</b>  |
| <b>9.1.c</b> 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 | See <b>OBS 2014.1.</b>  |
| <b>9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.</b>  | C |   |
| <b>9.2.a</b> The forest owner or manager holds consultations with stakeholders and experts to confirm that proposed HCVF locations and their  | C | Due to the overlap of HCV3 roadless areas with existing identified HCVs, there is no change in HCV area and no change in maintenance options. These areas were already  |



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| <p>attributes have been accurately identified, and that appropriate options for the maintenance of their HCV attributes have been adopted.</p>   |           | <p>under heavy-equipment exclusion and no new road or skid trail construction largely to being inoperable to begin with.</p>   |
| <p><b>9.2.b</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.</p>   | <p>C</p>  | <p>See <b>OBS 2014.2.</b></p>  |
| <p><b>9.3 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.</b></p>                                | <p>C</p>  |  |
| <p><b>9.3.a</b> 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.</p> | <p>C</p>  | <p>See <b>OBS 2014.3.</b></p>  |
| <p><b>9.3.b</b> All management activities in HCVFs must maintain or enhance the high conservation values and the extent of the HCVF.</p>   | <p>NE</p> |  |
| <p><b>9.3.c</b> 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.</p>  | <p>NE</p> |  |
| <p><b>9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.</b></p>   | <p>C</p>  |  |
| <p><b>9.4.a</b> 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</p>  | <p>C</p>  | <p>Natural community surveys are being conducted by Michigan Natural Features Inventory in FY 2014 for the Cudlip acquisition in the Gaylord FMU, the Thies acquisition and the proposed Grindstone Creek Dedicated Habitat Area in the Pigeon River Country FMU, proposed Betsie River Dedicated Habitat Area in the Traverse City FMU, and the</p> |

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| <p>with the requirements of Principle 8.</p>   |          | <p>Big Bass Lake Pine Barrens in the Gaylord FMU. An additional 6 survey sites may also be visited in the Traverse City, Sault Ste. Marie, and Gladwin FMUs pending additional FY14 contract funding. An annual report of these surveys will be provided to DNR, which will describe additional element occurrence records added to the Natural Heritage database. About ten percent of HCVAs are also examined by DNR field staff each year as part of the compartment review process.</p> <p>For roadless HCV3, existing monitoring activities are sufficient to capture the condition of its integrity. Since new road/ skid trail construction is already excluded from the management of these areas, risk of current monitoring activities failing to track roadless conditions is low.</p> |
| <p><b>9.4.b</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.</p> | <p>C</p> | <p>There are no newly identified risks to HCV attributes. Existing risks include the spreading of invasive species. For example, there is a power line right-of-way near the Carney Fen in the Escanaba district where new poles are to be installed. MDNR has been working with the rights holder to prevent the spread/ introduction of invasive species near the Fen.</p>  |

### Appendix 6 – Chain of Custody Indicators for FMEs

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

**SCS FSC Chain of Custody Indicators for Forest Management Enterprises  
Version 5-1: 12/03/12**

| <p align="center"><b>REQUIREMENT</b></p>  | <p align="center"><b>C/ NC</b></p> | <p align="center"><b>COMMENT/CAR</b></p>   |
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| <p><b>1. Quality Management</b></p>   |                                    |  |
| <p>1.1 The organization shall appoint a management representative as having overall responsibility and authority for the organization’s compliance with all applicable requirements of this standard.</p> | <p>C</p>                           | <p>Overall authority lies with the Certification Coordinator, David Price. Since timber sale administration is conducted at the level of each state forest, responsibilities are defined per job titles, which frequently are duplicated throughout the state forest system.</p> |

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| <p>1.2 The FME shall maintain complete records of all FSC-related COC activities, including sales and training, for at least 5 years.</p>   | <p>C</p> | <p>Training records were examined for Timber Sale Administration, the latest round of which were conducted in 2013 for the Eastern and Western Upper Peninsula. Timber sale contracts include all pre-harvest volumes and are saved for at least seven years.</p>  |
| <p>1.3 The FME shall define its forest gate(s) (check all that apply):<br/> <i>The forest gate is defined as the point where the change in ownership of the certified-forest product occurs.</i></p>  | <p>C</p> | <p><input checked="" type="checkbox"/> <b>Stump</b><br/> <i>Stumpage sale or sales of standing timber; transfer of ownership of certified-forest product occurs upon harvest.</i></p> <p><input type="checkbox"/> <b>On-site concentration yard</b><br/> <i>Transfer of ownership of certified-product occurs at concentration yard under control of FME.</i></p> <p><input type="checkbox"/> <b>Off-site Mill/Log Yard</b><br/> <i>Transfer of ownership occurs when certified-product is unloaded at purchaser's facility.</i></p> <p><input type="checkbox"/> <b>Auction house/ Brokerage</b><br/> <i>Transfer of ownership occurs at a government-run or private auction house/ brokerage.</i></p> <p><input checked="" type="checkbox"/> <b>Lump-sum sale/ Per Unit/ Pre-Paid Agreement</b><br/> <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></p> <p><input type="checkbox"/> <b>Log landing</b><br/> <i>Transfer of ownership of certified-product occurs at landing/yarding areas.</i></p> <p><input type="checkbox"/> <b>Other</b> <i>(Please describe):</i></p> |
| <p>1.4 The FME shall have sufficient control over its forest gate(s) to ensure that there is no risk of mixing of FSC-certified forest products covered by the scope of the FM/COC certificate with forest products from outside of the scope prior to the transfer of ownership.</p>   | <p>C</p> | <p>There is no risk of mixing since MDNR only makes sales of standing timber through stumpage or lump-sum sales, which means that the purchaser takes legal possession prior to the transport of harvested materials and is therefore responsible for maintaining the chain of custody.</p>  |
| <p>1.5 The FME and its contractors shall not process FSC-certified material prior to transfer of ownership at the forest gate without conforming to applicable chain of custody requirements.<br/> <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.</i></p> | <p>C</p> | <p>No processing occurs prior to the transfer of ownership.</p>  |
| <p><b>2. Product Control, Sales and Delivery</b></p>  |          |  |
| <p>2.1. Products from the certified forest area shall be identifiable as certified at the forest gate(s).</p>   | <p>C</p> | <p>Stumpage purchasers shall be notified that under FSC's Chain of Custody standards they may be required to show evidence that their wood comes from a certified source. This notice is included in timber sale contracts; upon severance from the stump, all COC procedures become the responsibility of the purchaser.</p>  |

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| <p>2.2 The FME shall maintain records of quantities/volumes of FSC-certified product(s).</p>   | <p>C</p>  | <p>MDNR maintains records of all pre-harvest volumes of timber products. All are sold as certified regardless of whether or not the purchaser maintains COC.</p> |
| <p>2.3. The FME shall ensure that all sales documents issued for outputs sold with FSC claims include the following information:</p> <ul style="list-style-type: none"> <li>a) name and contact details of the organization;</li> <li>b) name and address of the customer;</li> <li>c) date when the document was issued;</li> <li>d) description of the product;</li> <li>e) quantity of the products sold;</li> <li>f) the organization’s FSC Forest Management (FM/COC) or FSC Controlled Wood (CW/FM) code;</li> <li>g) clear indication of the FSC claim for each product item or the total products as follows:             <ul style="list-style-type: none"> <li>i. the claim “FSC 100%” for products from FSC 100% product groups;</li> <li>ii. the claim “FSC Controlled Wood” for products from FSC Controlled Wood product groups.</li> </ul> </li> <li>h) If separate transport documents are issued, information sufficient to link the sales document and related transport documentation to each other.</li> </ul> | <p>C</p>  | <p>The State Forest Timber Sale Contract template includes all information a)-g). Items f) and g) are explicitly addressed in clause 7.10.</p>                   |
| <p>2.4 The FME shall include the same information as required in 2.3 in the related delivery documentation, if the sales document (or copy of it) is not included with the shipment of the product.</p> <p><b>Note: 2.3 and 2.4 above are based on FSC-STD-40-004 V2-1 Clause 6.1.1 and 6.1.2</b></p>  | <p>NA</p> | <p>MDNR does not issue delivery documents (trip tickets); COC procedures become the responsibility of the purchaser upon severance of timber from the stump.</p> |

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| <p>2.5 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:</p> <ul style="list-style-type: none"> <li>a) There is no risk that the customer will misinterpret which products are or are not FSC certified in the document;</li> <li>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;</li> <li>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.</li> </ul> <p><i>FSC-ADVICE-40-004-05</i></p> | <p>NA</p> | <p>No delivery documents used.</p>  |
| <p><b>3. Labeling and Promotion</b> <span style="float: right;"><input type="checkbox"/> n/a</span></p>   |           |   |
| <p>3.1 Describe where/how the organization uses the SCS and FSC trademarks for promotion.</p>   | <p>C</p>  | <p>MDNR uses the FSC logo on its website.</p>   |
| <p>3.2 The FME shall request authorization from SCS to use the FSC on-product labels and/or FSC trademarks for promotional use.</p>   | <p>C</p>  | <p>MDNR requested new authorization on September 25, 2014 and has received approval for current logo use.</p> |
| <p>3.3 Records of SCS and/or FSC trademark use authorizations shall be made available upon request.</p>   | <p>C</p>  | <p>MDNR supplied the email for case #124450 for use of the FSC logo on the website.</p>                       |
| <p><b>4. Outsourcing</b> <span style="float: right;"><input checked="" type="checkbox"/> n/a</span></p>   |           |   |
| <p>4.1 The FME shall provide the names and contact details of all outsourced service providers.</p>   |           |   |

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| <p>4.2 The FME shall have a control system for the outsourced process which ensures that:</p> <ul style="list-style-type: none"> <li>a) The material used for the production of FSC-certified material is traceable and not mixed with any other material prior to the point of transfer of legal ownership;</li> <li>b) The outsourcer keeps records of FSC-certified material covered under the outsourcing agreement;</li> <li>c) The FME issues the final invoice for the processed or produced FSC-certified material following outsourcing;</li> <li>d) The outsourcer only uses FSC trademarks on products covered by the scope of the outsourcing agreement and not for promotional use.</li> </ul> |          |   |
| <p><b>5. Training and/or Communication Strategies</b></p>   |          |   |
| <p>5.1 All relevant FME staff and outsourcers shall be trained in the FME's COC control system commensurate with the scale and intensity of operations and shall demonstrate competence in implementing the FME's COC control system.</p>   | <p>C</p> | <p>COC is addressed in Section 3 of MI DNR Forest Certification Work Instruction 7.2:<br/> <a href="http://www.michigan.gov/documents/7_133228_7.2.pdf">http://www.michigan.gov/documents/7_133228_7.2.pdf</a>.<br/>                     All MDNR staff involved in timber sale administration have been trained in contract administration and the use of timber sale templates that contain MDNR's FSC code and claim (see 1.2).</p>  |
| <p>5.2 The FME shall maintain up-to-date records of its COC training and/or communications program, such as a list of trained employees, completed COC trainings, the intended frequency of COC training (i.e. training plan), and related program materials (e.g., presentations, memos, contracts, employee handbooks, etc).</p>  | <p>C</p> | <p>See 1.2. MDNR employees provided summaries of all trainings, including contract administration. Each staff member maintains his or her own training records, which are then summarized for certification. Work Instruction 7.2 cited above was updated in 2014. Contract administration trainings are held on an as-needed basis. As the burden of maintaining COC largely lies with the buyer since MDNR uses contract templates with the required information, current COC training and guidance is sufficient to prevent any breaks in COC while timber is under MDNR's responsibility.</p> |