2022 FOREST CERTIFICATION

MANAGEMENT REVIEW REPORT

Draft Report
March 20, 2023

Approved by the DNR Resource Bureau Management Team

Forest Resources Division
IC4506 (Rev. 06/20/2023)

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EXECUTIVE SUMMARY

The purpose of the Management Review is to evaluate audit results and recommend solutions where warranted, to recommend revisions to the work instructions and recommend management actions that contribute to the continual improvement of forest management in the State of Michigan.

There are three types of certification audits:

1. External audits that evaluate the Michigan Department of Natural Resources (MDNR), forest management program against the Forest Stewardship Council® (FSC®) and Sustainable Forestry Initiative® (SFI®) forest management standards.
2. Internal audits that evaluate forest management activities in a given Forest Management Unit (FMU) for conformance to MDNR forest certification work instructions.
3. Internal theme audits that look for conformance to one or more work instructions across all FMUs.

A summary of the current and unresolved findings from recent audits follows:

- The 2021 external audit resulted in 1 FSC Minor Corrective Action Request (CAR) which was cleared after the 2022 audit.

- No internal audits were conducted in 2021 due to COVID-19.

- The 2022 internal audit focused on the Gaylord, Escanaba, and Shingleton FMUs and was conducted June 14 - 16, 2022. The audit resulted in 2 Opportunities for Improvement (OFI) and 3 CARs.

- The 2022 external audit focused on Crystal Falls, Baraga, and Gwinn FMUs. The SFI audit resulted in 2 new minor CARs; and the FSC audit resulted in 2 new minor CARs. The SFI and FSC findings were concurrent.

- There are several older internal audit and theme audit minor non-conformances that remain open but are expected to soon be closed.

- The 2023 theme audit will focus on the evaluation of difficult to regenerate stands.

- The 2023 external audit will focus on the Sault Ste. Marie (west), Grayling, and Roscommon FMUs and is tentatively scheduled for the week of October 9 pending final approval of auditors.

SECTION I. BACKGROUND

Michigan's state forest was dual certified in 2005 by SFI and FSC. Each of these certification systems comes with a set of forest management standards to which the state forest management system is expected to conform, and both standards encourage continual improvement of the forest management system.

The SFI Principle 12 Objective 17 addresses the need for continual improvement and the requirement for an annual management review.

The FSC standard does not explicitly address the concept of 'continual improvement', but it is implied through Principle 8: Monitoring and Assessment, where monitoring is used to achieve continued improvement.

Management Review Process

The Michigan Department of Natural Resources (MDNR) Forest Certification Work Instruction (WI) 1.2 establishes both the management review team and the management review. The review is a systematic process to evaluate forest management practices and to promote continual improvement in the management of the state forest system. The present review is based on the results of the internal and external audits and includes:

1. A report of the disposition of 2021 audit results.
2. An evaluation of 2022 audit results.
3. A report of actions immediately taken to address new audit findings.
4. Identification of pending actions needed to address new audit findings.
5. An assessment of the effectiveness of work instructions.

Focus of Management Review Meeting

Discuss and make management decisions to:

1. Address any SFI and FSC corrective action requests (CARs) and assign responsibility for actions to address findings.
2. Address unresolved non-conformance reports (NCRs) from past internal audits; develop strategies to resolve them and assign responsibility for actions to address findings.
3. Address pending actions proposed at previous management reviews that are not fully implemented.
4. Identify needed revisions to work instructions; and
5. Identify other actions for continual improvement of state forest operations.

Recommended Timeline for Review of Management Review Report

1. The Forest Certification Coordinator will produce a draft management review report for the management review meeting that was held in St. Ignace on January 24, 2023.
2. The Management Review Team will agree on a draft Management Review Report and identify any needed work instruction revisions at the management review meeting. The draft report will be forwarded through the Management Review Team to the Forest Resources Division, Wildlife Division, Fisheries Division, Law Enforcement Division and Parks & Recreation Division management teams for comment by March 21, 2023.
3. Management Team comments on the draft report and list of needed work instruction revisions are due on April 28, 2023, to the Forest Certification Coordinator, who will prepare a final draft of the report.
4. The Forest Certification Coordinator will send the final draft management review report and the list of revised work instructions to the Resource Bureau Management Team for information on May 23, 2023, with approval desired by June 27,2023.

Implementing Program Improvements

1. Whenever possible, immediate changes will be made to remedy identified non-conformances.
2. The Management Review Team will be responsible for recommending actions necessary to improve sustainable management of forest resources.
3. Division management teams will review recommended actions specifically regarding impact upon program and field operations.
4. The Resource Bureau Management Team will review and approve management review decisions that identify changes and improvements necessary at all MDNR levels to continually improve conformance with work instructions and standards.
5. Division chiefs will ensure changes and improvements approved by the Resource Bureau Management Team are implemented via delegation to the appropriate manager.

SECTION II. STATUS OF PREVIOUS AUDIT RESULTS & 2021 MANAGEMENT REVIEW REPORT

This section provides status including disposition or extension of open findings from previous external audit and internal audits and actions identified in the previous Management Review Report. Details regarding the disposition of audit findings may be found in the published reports summarizing the 2021 external audit.

External Audit Findings

Open findings from the 2020 recertification audit were addressed, reviewed and closed following the 2021 surveillance audit. Findings from 2021 included one FSC Minor CAR.

Internal Audit Findings

There are no open non-conformances from any internal audits prior to 2016. Recommended actions on the following internal audit findings have been completed and the findings have been closed:

- Minor NCR 53-2019-01: Red Pine cover type management within the PRC often deviates from standard red pine silvicultural practices and RSFMP Management Area rotation length of 80 years.
- NCR 61-2017-01 cited Work Instruction 1.4 involving the Lake Dubonnet flooding with respect to its status as a State Wildlife Management Area and whether it is In-scope or Out-of-scope for forest certification.
- Minor NCR 45-2019-01 (WI 1.4): An experimental harvest (Beaver Tail Hardwoods 45-008-18-001) was conducted with the stated goal of improving the quality of a Mesic Northern Forest ERA (Element Occurrence Identification 13253, Last Observed 2006, Quality Rank C).
- OFI 45-2019-02, (WI 3.1): A contracted sale (Cranberry Hardwood Take II #45-001-16-01) includes a payment unit (6b) within a Riparian Management Zone (RMZ). Appropriate harvest accommodations and justification were used for treatment within the RMZ, yet this information was not properly documented within section 22 of Timber Sale Proposal Checklist.

One minor non-conformance remains open from 2016 internal audits (NCR 71-2016-05 citing Work Instruction 3.1) and is discussed further in Section V. Minor non-conformances remain open from the 2016 Theme Audit of Work Instruction 2.2 and is discussed further in Section V.

Two findings from 2017 (NCR 61-2017-01 and NCR 12-2017-02 citing Work Instruction 1.4) remain open and are discussed further in Section V.

Findings from the 2018 Internal Theme Audit of Work Instruction 1.2 remain open and are discussed further in Section V.

2021 Management Review Report

A 2021 Management Review was not conducted. The 2021 external audit findings were all closed and additional recommendations from the 2020 Management Review Report were implemented in 2020-2021. The detailed implemented recommendations are discussed below and the items that are incomplete have been carried over into Section V.

- The Michigan DNR Public Summary Audit Report and MDNR Monitoring Reports were updated on the SFI and MDNR websites in response to a SFI Minor Non-Conformance.
- The Management Review Team was restructured to provide for more effective input, oversight, and collaboration.
- A Wildlife Division policy to evaluate State Wildlife Management Area designations with the intent for removal was finalized and number of areas including Lake Dubonett have been evaluated and clarified.
- A process has been initiated to conduct the 5-year review of the Ecological Reference Area and Designated Habitat Area-Core Interior Forest Network.
- Within WI 2.2 – Chemical Use:
    - Clarified non-DNR chemical use reporting requirements on state lands or public waters within or adjacent to state lands.
    - Added requirement for verification of review and consideration of associated Environmental and Social Risk Assessments for Use Permits and Non-DNR PAPs approval.
    - Clarified instances where chemical use tracking and reporting may not be required. Examples include chemical treatments are on lands or waters for which MDNR does not have full management authority and is not the chemical applicator including chemical treatments by lake associations on lakes which MDNR is only a partial owner and lampricide or other chemical treatments for fisheries on public waters.
- Several actions were taken to improve compliance with the logger safety standard for MDNR contractors.
- Forest Resources Division has transitioned to use of the Michigan Learning Centre training record database as a centralized means for tracking employee trainings.
- Clarified language in WI 2.1 - Reforestation requirement for stands with regeneration harvests to be regenerated within 2 planting seasons if regenerated artificially. New language recognizes the delays may be typical for establishment of some species (e.g., red pine).
- Within WI 3.1 – Forest Operations, clarified guidance for exclusion from scope of certification for lands with new large-scale, permanent conversions to non-forest use (e.g., mineral development, solar arrays, etc.).
- Replaced multiple references from “Office of State Archaeologist” to “MDNR Staff Archaeologist” to reflect recent staff changes.

SECTION III. SUMMARY OF 2022 AUDIT RESULTS

Results of the 2022 internal and external audits are discussed below. Actions to address the new findings are outlined in Section V.

2022 External Audit Findings

The 2022 external audit was a surveillance audit for both standards and was carried out from October 18 - 20, 2022, by Beth Jacqmain (SFI) and Dave Wager (FSC) on the Crystal Falls, Baraga, and Gwinn FMUs. The SFI audit resulted in 2 new minor CARs; and the FSC audit resulted in 2 new minor CAR which were concurrent to the SFI findings. All findings from previous external audits were closed.

2022 Internal Audit Findings

The 2022 internal audit focused on the Gaylord, Escanaba, and Shingleton FMUs and was conducted from June 14 - 16, 2022. The audit resulted in 2 Opportunities for Improvement (OFI) and 3 minor CARs.

SECTION IV. IMPLEMENTED ACTIONS TO ADDRESS AUDIT FINDINGS

Following the external and internal audits, there is a concerted effort to expeditiously address and close each of the CARs, non-conformances, observations, and opportunities for improvement. There are no actions that have already been implemented to address 2022 audit findings.

The 2022 SFI and FSC Minor CARs remain open and are discussed in Section V.

All 2022 Internal Audit findings remain open and are discussed in Section V.

SECTION V. PENDING ACTIONS TO ADDRESS AUDIT FINDINGS

The content of this section drives the main discussions at the management review meeting, as it requires the identification of recommended actions to resolve audit findings and the assignment of a manager responsible for implementation. The section is organized by work instruction group.

Work Instruction Group 1: Plan, Monitor and Review

1.1 Strategic Framework

- OFI 63-2015-01: The MDNR uses the work instructions to guide planning, operations and review of state forest management. Currently, the work instructions seem to be lacking guidance on invasive species management; especially management practices related to early detection, rapid response and decontamination. The decontamination guidelines for FRD staff have been disseminated, but despite a reporting form that was developed as part of the Quality-of-Life material for aquatic ecosystems, there does not appear to be any direction on early detection rapid response for terrestrial ecosystems.
    - **Discussion Points:** [2019] There needs to be more and better direction for field staff with respect to invasive species on state forest land while further direction is developed.
    - **Recommended Decision:** [2019] Identify CISMAS by FMU, ID MDNR points of contact, and develop MOUs between MDNR and each of the Cooperative Invasive Species Management Areas which will clarify priorities, roles, and responsibilities. There is also a need to revisit voluntary decontamination policy. Further action pending filling of vacant Terrestrial Invasive Species Coordinator position. [2022] TIS Coordinator has been hired and is progress has been made in implementing the TIS Management Plan. Statewide Invasive Species and Forest Health trainings are scheduled for 2023 and will continue on an annual basis.
    - **Responsible Manager:** David Price, Planning and Operations Section and Sue Tangora, Forest Health Section.
    - **Due Date:** September 30, 2023.

1.2 Management Review Process

- OFI MU 45-53-2019-01: While Burn Reports for prescribed fire are required (per Policy and Procedure 33.42-08 – Prescribed Fire Use) and provide details of the prescribed fire, follow-up monitoring of the effects is rarely being done. There is no policy or guideline for specific follow-up monitoring to assess the success, failure or degree of either with respect to the burn objective(s).
    - **Discussion Points**: Without monitoring, there is no way to determine why a fire was successful or a failure resulting in an inability to improve forest management. Adaptive management is not possible.
    - **Recommend Decision**: Work to apply improved objective development and structured follow-up/monitoring process to prescribed burns. Possible topics include prescribed burn effectiveness on control of invasives and regeneration of red pine and/or oak.
    - **Responsible Manager**: Jeff Stampfly, Glenn Palmgren, Fire Management Specialist
    - **Due Date**: December 31, 2023.

- The 2018 Theme Audit focused on two specific areas in need of evaluation - governance including teams and team membership and internal audit format and focus. The audit was based on interviewing three categories of staff with a separate but similar set of questions for each group.

- **Discussion Points**: The audit resulted in several recommendations that could be implemented immediately, as well as some that will need further discussion and a recommended course of action from the Resource Bureau before proceeding.
- **Recommend Decision**: The Resource Bureau approved changes to the FCT, the Internal Audit process and structure, and associated changes to the Work Instructions have been implemented. The recommendations on restructuring the Management Review Team and implementation of Effectiveness Monitoring, including the identification of monitoring topics and the creation of an Effectiveness Monitoring Technical Team, and subsequent Work Instruction changes, are awaiting review by Resource Bureau. [2022] An effectiveness monitoring team will be created to begin implantation of monitoring to supplement the northern hardwoods research project.
- **Responsible Manager**: David Price, Planning and Operations Section.
- **Due Date**: September 30, 2023.

1.3 Regional State Forest Management Plan Implementation and Review

- SFI 2022.2 and FSC 2022.2. Conifer Cloudland 32-012-19, units 1, 2, and 3 contained a natural, mature fire origin mixed red and white pine stand with advanced white pine regeneration. The approximately 50-acre clearcut will be chipped and flat planted with improved red pine stock. Per Division of Wildlife's recommendation, the planting is to be done without trenching and herbicide. Green tree retention included some >24" individual pines and a leave patch on one end of the stand. Based on ocular estimates of the pre-harvest stand, white pine comprised somewhere between 30-50% of the basal area. According to the Compartment Exam this fire origin pine is "locally unique" and "more rare on the landscape". FSC requires rare community types to be managed to "maintain, restore, or enhance the viability of the community." While some natural white pine regeneration will occur within the 100% red pine plantation, it seems likely that the overall composition will shift to predominantly red pine. When interviewed, DNR staff acknowledged that there is no guidance available to foresters specific to managing natural origin red pine stands.

  In management of "locally unique" and "rare" fire origin pine stands, MI DNR must ensure management "maintains, restores, or enhances the viability of the community" including more retention of key elements of the pre-harvested stand such as leave islands, natural advanced regeneration, and or seed sources than were observed at Conifer Cloudland 32-012-19.

  SFI requires ecologically important sites to be appropriately managed. When interviewed, DNR staff acknowledged that there is not guidance available to foresters specific to natural origin red pine stands. MI DNR must ensure that key characteristics of natural origin red pine stands are considered, and management is appropriate to conserving the principal features of such stands as may be appropriate to this identified "locally unique" and "more rare on the landscape" stand.
  - **Discussion Points:** There is an opportunity to reevaluate silvicultural guidance for natural origin white pine and mixed red and white pine. Natural origin pine has also been an important topic in Desired Future Condition (DFC) discussions and modeling for the Michigan State Forest Plan (SFMP) revision.
  - **Recommended Decision:** In response to SFI 2022.2 and FSC 2022.2 and to resolve on-going DFC discussions and modeling for the new SFMP, Michigan DNR will conduct additional analysis of state forest inventory to quantify the extent of natural origin red and white pine on state forests, evaluate protection status and determine management intent and direction, and provide updated silvicultural guidance for management of natural red and white pine to field staff.
  - **Responsible Manager:** David Price, Forest Planning and Operations Section Supervisor
  - **Due Date:** September 30, 2023.

1.4 Biodiversity Management

- NCR 12-2017-02 cited Work Instruction 1.4 and concerned inconsistencies in many State Wildlife Management Areas and whether they were appropriately included as In-scope or Out-of-scope for forest certification purposes. The solution needs to come from Wildlife Division.
    - **Discussion Points**: A Wildlife Division working group was formed to develop a new policy and procedure for review of status of Wildlife Management Areas. Upon completion of the status review, necessary boundaries revisions and determination of In-scope or Out-of-scope statuses for the purposes of certification will be determined.
    - **Recommended Decision**: Complete policy and procedure, revise communications to the public and field staff, and update in-scope/out-of-scope list and associated boundary representations in SCA layer. [2022] Changes to the definition of excluded lands in WI 1.1 provide resolution to this issue.
    - **Responsible Manager**: Keith Kintigh, Forest Conservation and Certification Specialist and Mike Donovan, Management Information Unit Supervisor
    - **Due Date**: September 30, 2020. (This finding will be considered closed after approval of revised work instructions).

- Disagreement between what is represented in the Cold-Water Lakes and Streams SCA layer and local knowledge of Fisheries staff has been discussed in detail resulting in the identification of varying understanding of cold-water/high priority trout streams and the application of buffers.
- OFI 45-2019-01: Access to accurate aquatic information including lake and river classification and regulatory and protection status has been a consistent challenge on state forest lands (see 2019 Management Review Report). Fisheries Division's Institute for Fisheries Research developed the Aquatic Habitat Viewer, an ArcGIS Online application useful for accessing accurate aquatic information. However, the tool currently has restricted access and is only available to Fisheries Division staff.
    - **Discussion Points**: SCA layer should clearly identify areas where FRD field staff need to engage with Fisheries Division staff on proposed treatments or project planning. Further discussion with SCA/HCVA committee also identified the broader need for similar clarification of areas of co-management with PRD (e.g., rail trail corridors and State Forest campgrounds).
    - **Recommended Decision**: Reinforce Fisheries Division's ability to provide expertise and engage in state forest decision-making. Correct cold-water and high priority trout stream representations in Enterprise GIS based on accurate sources including the Institute of Fisheries Research AGO app. [2022] Work with RAS and FD staff to replace Cold Water Streams and Lakes layer with appropriate Institute of Fisheries Research – Data Viewer layer. Isolate to cold and cold transition. FD can help with cut offs. RAS can determine if we need to host or can point to outside sources.
    - **Responsible Manager**: John Spitzley, Manager, RAS, David Price, Manager, FPS.
    - **Due Date**: September 30, 2023.

- OFI: MU-3, WI 1.4: Opportunity to clarify requirements associated with wildlife habitat justification for treatments on purchased lands. There is a need to clarify basis for justification requirement and scope of application. In addition, there is inconsistency in restrictions being applied to purchased lands, i.e., chemical use restrictions (request for no use on state forest purchased lands while use occurs in SWMAs).
    - **Discussion Points:** It is important to provide descriptions of benefits to wildlife for treatments on "purchased lands" for both federal and requirements and to satisfy stakeholder interests. There are multiple ways to report on treatment benefits to wildlife. A good solution may be to include "purchased lands" management guide reoccurring analysis and reports on benefits of treatments on purchased lands as part of the SFMP revision.
    - **Recommended Decision:** Include purchased lands management direction and reoccurring analysis and reporting in SFMP revision.
    - **Responsible Manager:** David Price, Manager, FPO Section.
    - **Due Date:** December 31, 2023.

- OFI 52-1, WI 1.4: On several occasions, appropriate rare species mitigation measures were considered and reflected in treatments, yet there were no records or documentation of rare species review.
    - **Discussion Points:** Consistently capturing environmental review decisions and associated rare species mitigation measures has historically been a challenge. Printouts in compartment files or notes in stand or treatment comments have been used with varying effectiveness.
    - **Recommended Decision:** Recognizing this challenge, a department team with the assistance of MNFI, has been working to develop a Rare Species Review Tool, which is a standalone app and database built within a GIS environmental. The tool is intended track rare species review and assist with decision-making for mitigating the potential impacts on rare species of proposed forest treatment and other state forest project development.
    - **Responsible Manager:** David Price, FPO Section Supervisor and Amy Derosier, Planning and Adaptation Section Supervisor
    - **Due Date:** September 30, 2023.

1.5 Social Impact and Public Participation

- **Discussion Points:** No issues identified for discussion.

1.6 Management Unit Analysis

- **Discussion Points:** No issues identified for discussion.

Work Instruction Group 2: Forest Regeneration and Chemical Use

2.1 Reforestation

- Minor NCR 73-45-2019-01: Failure to identify potential natural regen problems prior to harvest and staff not consistently following natural regen evaluation requirements.
- NCR 33-2022-01: Department guidance lacks a clear definition of forest productivity and no way to clearly describe successful natural regeneration of forest stands within first 10 years after harvest. In some instances, natural regeneration harvests are being prescribed without clearly defining specific and expected regeneration outcomes. Stand management objective is often being described very broadly, i.e., any combination of tree species currently on site without target stocking densities. Field evidence suggests inconsistent application of quantitative natural regen surveys and when conducted, results are not captured except in stand comments. In addition, staff are not documenting clear, site-specific environmental or forest health considerations when successful natural regeneration exceeds 5 years since timber sale completion. Finally, the Work Instructions lack a clear definition of forest productivity, e.g., maintenance of stand forest volume and/or species diversity across rotations at a given point in time and/or capturing adequate stocking of desirable species to meet values identified in forest management plan.
    - **Discussion Points:** [2019] Examples illustrate a lack of understanding on specific guidance related to difficult to regenerate stands and demonstrate that current regeneration guidance may be unclear or that more training may be required. [2022] New Forester Training is tentatively scheduled for October 2023 and will include regeneration monitoring. In addition, MDNR continues to support collaborative research to better understand methods and measure for successful regeneration of northern hardwoods and cedar-dominated lowland conifers.
    - **Recommended Decision:** [2019] Conduct additional training and develop additional communication on updated regeneration guidance. [2022] Continue to support collaborative research on difficult to regenerate cover types. Conduct theme audit in 2023 on difficult to regenerate stands.
    - **Responsible Manager:** David Price, FPO Section Supervisor, Jason Hartman, State Silviculturist
    - **Due Date:** December 31, 2023.

2.2 Use of Pesticides and Other Chemicals

- 2016 Theme Audit addressed Work Instruction 2.2 and resulted in one non-conformance for each of the four regions which have yet to be closed. Due to the broad nature of the root cause, a centralized solution has been proposed and is being pursued that will result in complete closure. In addition, Work Instruction 2.2 will need to be revised to conform to centralized solution.
    - **Discussion Points**: Progress has been made on development of a centralized ArcGIS online application to streamline and improve process and tracking related to the application of chemicals on State Forest land. Focus is on centralizing PAPs and PUERs and Chemical Use Reporting. Development is being overseen by a team and application is scheduled for field testing in 2020 with completion in 2023 and full implementation for 2024 field season.
    - **Recommended Decision**: Allow development to continue to field testing with full implementation planned for 2024.
    - **Responsible Managers**: David Price, FPO Section
      Due Date: December 31, 2023.

- OFI: MU-2, WI 2.2: There are no clear thresholds for determining when a site prep spray is required prior to planting. Our current system places burden on the District Timber Management Specialist (TMS) to make a qualitative evaluation which may be leading to a default decision to spray. Conversely, release sprays have clearer criteria, i.e., Free to Grow measurements.
    - **Discussion Points:** The effectiveness of varying red pine site prep and release techniques were evaluated 2022. DNR should assume that all previously forested stands will require competition control for establishment of red pine. Determining site prep vs release treatment decisions will require earlier development of PAPs and PAPs should initially be developed by the treatment sponsor who has the most knowledge of the site. **Recommended Decision:** Guidance should be updated to state that it is the DNR's expectation that all red pine artificial regeneration will require competition control, either site prep or release treatments. Work Instruction should be revised to require earlier development of PAPs, initiated by the treatment sponsor once the treatment is scheduled.
    - **Responsible Manager:** David Price, FPO Section Supervisor
    - **Due Date:** September 30, 2023.

2.3 Integrated Pest Management and Forest Health

- SFI 2022.1 and FSC 2022.1: In the Baraga Unit (Compartment 10 Wildlife Opening Corridor Planting), an area was ripped and planted with red pine trees. The SCS auditor observed spotted knapweed along the area that was ripped. Knapweed, a colonizer of exposed soil, should have been identified and possibly treated before exposing soil. During the audit discussion at this site, MI DNR were not able to identify this common invasive species when interviewed. As such, staff did not demonstrate the capacity to determine whether or not a treatment was warranted before or after planting. Baraga Unit staff also had stated that they had no invasive plant problems during the opening meeting. However, knapweed was observed to be established on two of the audit selection sites. In the plan for managing Baraga Plains Wetland ERA, knapweed was identified as a considerable threat to the integrity of the ERA and treatment was encouraged. Identification of species is a necessary step towards treatments designed to protect the forest resource.
- OFI: MU-1, WI: 2.3: Documented examples that highlighted an opportunity to revisit and clarify forest health guidance related to oak wilt, Beech Bark Disease (BBD), and Emerald Ash Borer (EAB). Staff have varying expectations about different forest health-related treatment outcomes leading a wide range of applications of harvest specifications and next step treatments.
    - **Discussion Points:** MI DNR must ensure that forestry staff demonstrate knowledge, and take appropriate action where feasible, to limit the introduction, spread and impact of invasive species that directly threaten native plant and animal communities.
    - **Recommended Decision:** MDNR will provide invasive species and forest health training for staff starting in FY23 and continuing on an annual basis. Training will be mandatory for field staff involved in forest management decisions including Wildlife Biologists and Technicians, Foresters and Forest Techs, Parks and Rec Staff working on state forest trails and campgrounds, and Field Specialists. Training will include regional priority species education modules; discussion of resources, tools, and management implications; and a growing season field day. In addition, staff

will be made aware of and encouraged to participate in local Cooperative Invasive Species Management Area trainings. Finally, forest health guidance for management of red oak, American beech and ash will be reviewed and updated as appropriate.
    - **Responsible Manager:** David Price, Planning and Operations Section and Sue Tangora, Forest Health Section.
    - **Due Date:** September 30, 2023.

- NCR 52-2022-01: A sizeable population of invasive Japanese knotweed was identified during the audit in an active timber sale landing. Additional specimens were identified along the access roads into the sale. The timber sale administrator was unaware of the occurrence and the location was undocumented.
    - **Discussion Points:** The occurrence was described as Bohemian/hybrid knotweed which has the potential to spread by seed but is primarily spread by the movement of plant fragments which can re-establish. While the occurrence was sizeable, local staff were unaware of the occurrence and the location was undocumented. On site discussion with Invasive Species staff recommend closing access to the area immediately to prevent further spread of the species. Additionally, consideration should be given to treating the adjacent small occurrences along forest roads. Treatment of the entire occurrence would likely require outside funding, multiple annual treatments for a minimum of 3-5 years and monitoring for an additional 3-5 years.
    - **Recommended Decision:** Invasives species specialist will work with the local unit to report site in MISIN and contain the site with barriers and forest road closure. Local staff will participate in mandatory invasive species training.
    - **Responsible Manager:** Lucas Merrick, Gaylord Forest Management Unit Manager, Cody Stevens, NELP District Manager, Sue Tangora, Forest Health and Cooperative Programs Section Supervisor
    - **Due Date:** September 30, 2023.

Work Instruction Group 3: Best Management Practices

3.1 Forest Operations

- NCR 71-2016-05 cited Work Instruction 3.1 and concerned an oil well lease that was “out-of-compliance” with the conditions of the lease and with EGLE requirements. This non-conformance will be held open to provide time for the operator of the well site to carry out the necessary actions to bring the operation into full compliance.
    - **Discussion Points:** [2016] This non-conformance identified a host of issues with well sites in the area and resulted in a meeting between EGLE and DNR staff to iron out differences and form a plan to move forward to clean-up. The lessee has been conducting the necessary fixes to bring the operation into conformance with EGLE and DNR requirements. [2022] Non-conformances continue to be documented on site.
    - **Recommended Decision:** [2016] Allow unit staff to continue to work with lessee to ensure that compliance is gained. [2022] Local staff will work with Land Use Specialist and EGLE to resolve issues.
    - **Responsible Manager:** Ashley Autenrieth, FRD WLP District Supervisor, Doug Bates, Roscommon FMU Unit Manager.
    - **Due Date:** December 31, 2023.

3.2 Best Management Practices

- Minor NCR 73-45-53-2019-02: The goal of forestry Best Management Practices is to minimize the effect of non-point source (NPS) pollution caused by logging. NPS pollution is caused by the conveyance of mineral or organic sediment, nutrients, chemicals, heat or debris into ground or surface water, or otherwise damage streams, lakes and wetlands. Forestry Best Management Practices also seek to maintain forest productivity during logging by minimizing soil rutting and compaction. Resource Damage Reports are intended to capture instances of non-conformance to forestry Best Management Practices. Staff continue to demonstrate confusion over the definition of Best Management Practices non-conformances (Resource Damage Reports). In additions, staff report challenges with the current reporting format and database.

- **Discussion Points:** There are 2 points: 1) what constitutes reportable resource damage; and 2) problems with the current database. There are other activities beyond forestry that can create NPS and loss of soil productivity like ORVs.
- **Recommended Decision:** Clarify definitions on what constitutes an RDR, e.g., Handbook of examples; update/Revise RDR database (building upon culvert app may be an efficient option). [2022] Re-enforce existing system through training for staff. Management team to discuss development of team to evaluate existing system and revision process as necessary.
- **Responsible Manager:** John Spitzley, Manager RAS, David Price, FPO Section Supervisor
- **Due Date:** December 31, 2023.

- NCR 52-2022-2: Audit identified access roads from the west into the Hilly Mix timber sale (52-001-22; T31N, R05W, Sec 3 – N1/2) do not meet BMP standards. Deficiencies included severe rutting, gulley erosion and no crown on the road. Repairs will require heavy grading and installation of water diversion features. In addition, no Resource Damage Reports were completed for identified roads.
  - **Discussion Points:** The Michigan Sustainable Soil and Water Quality Practices on Forestland is the standard guide for water-quality protection in state forest operations. Timber sale contracts and road construction or maintenance contracts require compliance with BMP standards. In addition, DNR employees are required – and other citizens and visitors are encouraged – to watch for and report BMP problems in State Forests. Reporting responsibilities for BMPs include all instances of loss of soil productivity through erosion, rutting, and/or compaction regardless of the cause, or conveyance of soil into surface water. Employees should endeavor to monitor problem-prone areas on a systematic basis.
  - **Recommended Decision:** FMU will report RDR and plan and implement road repairs.
  - **Responsible Manager:** NELP District Supervisor.
  - **Due Date:** September 30, 2023.

3.3 Road Closures

- **Discussion Points**: No issues identified for discussion.

Work Instruction Group 5: Research

5.1 Coordinated Natural Resource Management Research

- Minor NCR 45-2019-02: An experimental harvest (Beaver Tail Hardwoods 45-008-18-001) was conducted with the stated goal of improving the quality of a Mesic Northern Forest ERA (Element Occurrence Identification 13253, Last Observed 2006, Quality Rank C). There is no ERA plan in place, nor has the ERA been surveyed recently. Informal discussions were carried out with a Michigan Natural Features Inventory Ecologist but no on the ground interaction took place.
  - **Discussion Points:** The harvest plan was experimental using a number of specifications, yet there is no project proposal or experimental design to assess the results of this harvest. In addition, the treatment design did not account for the fact that this site is located within an Obligate Deer Wintering Complex (DWC) and as a result achieving sufficient regeneration may be difficult. Furthermore, red oak, white oak and white pine were planted in gaps within this treatment, though it is not clear how these under-planting treatments are improving the quality of the element occurrence. White oak in particular is not even a species native to this area or part of mesic northern forests. Finally, there is no protocol in place to assess the impact of the harvest on the ground flora, nor is there active systematic invasive monitoring program for the treatment area. Garlic mustard is present within the vicinity of the sale with no treatments to control it coded into the MiFI database in the current area of infestation.
  - **Recommended Decision:** Log experimental management project in Great Lakes Silviculture Library (http://silvlib.cfans.umn.edu/) as per WI 5.1. [2022] A new system needs to be developed to record experimental management projects. Options include 1) Building upon existing Silviculture form for “Internal Field Trials”, 2) flagging experimental management projects in MiFI. Once new system is developed and improved, update WI and provide training.
  - **Responsible Manager:** David Price, FPO Section Supervisor.
  - **Due Date:** September 30, 2023.

Work Instruction Group 6: Recreation and Education

6.1 Implementing Public Information and Educational Opportunities

- **Discussion Points**: No issues identified for discussion.

6.2 Integrating Public Recreational Opportunities with Management

- **Discussion Points**: No issues identified for discussion.

6.3 Sustainable Forestry Initiative Involvement and the Implementation Committee

- **Discussion Points**: No issues identified for discussion.

Work Instruction Group 7: Integrated Implementation and Contracting

7.1 Timber Sale Preparation and Administration Procedures

- **Discussion Points**: No issues identified for discussion.

7.2 Legal Compliance and Administration of Contracts

- **Discussion Points**: No issues identified for discussion.

Work Instruction Group 8: Training

8.1 Staff Training for State Forest Management

- NCR 72-2017-06 cited Work Instruction 8.1 and was related to a lack of familiarity with training needs, training plans and inconsistencies between official and unofficial training records. This non-conformance has been partially closed.
- NCR 12-2017-09 cited Work Instruction 8.1 with respect to incomplete performance appraisals and incomplete documentation of training needs for unit staff.
- Some years ago, there was a listing of required training for foresters that was largely focused on technical training. It is uncertain as to what became of this list as no one seems to recall it or has a copy. Do we need to resurrect or recreate this list, and do we need to address the additional topic of professional training for foresters?
    - **Discussion Points**: Non-MDNR trainings should be reported to the training officer and included in centralized training record. There is a need to have the training officers send out a reminder to all staff of the requirements of the work instruction and how, when and to whom the training records should be reported. Fisheries Division has an interactive database that is easy to use – may serve as an example of what FRD and WD could develop. Each division has a different process. **Recommended Decision**: FRD has developed and released the *Training by Position Guide*. The MDNR training team will develop a memo to remind staff of the requirements of reporting training. In addition, the Training Team is participating in a department-wide initiative to implement the existing Civil Service Training. Implementation date is still uncertain. [2022] FRD has completed transition to Michigan Learning Center. All trainings required in Training by Position Guide are tracked in Michigan Learning Center. However, a tracking system to record "one-off" trainings needs to be developed. Options could include a MS forms page and database. Once final process is developed, inform staff of record keeping procedures.
    - **Responsible Manager**: Erika Sundberg, HR Manager, Forest Resources Division
    - **Due Date**: September 30, 2023 (Memo only).

Work Instruction Group 9: Tribal

9.1 Collaboration with Tribes Regarding Management of State Forest Land

- OFI 33-1: The audit identified an instance where an archaeological/historical site was known and protected based upon SHPO recommendations, yet there were no records of the occurrence as per WI which states "Cultural heritage records maintained in locked comments in OI records".
    - Discussion Points: Records of known archeological, historical, and/or cultural sites should be maintained locally to prevent inadvertent damage to sites.

- Recommended Decision: Update the WI to reflect current inventory process (MiFI locked comments vs OI Records).
- Responsible Manager: David Price, FPO Section Supervisor, Forest Resources Division.
- Due Date: September 30, 2023.

SECTION VI ASSESSMENT OF THE EFFECTIVENESS OF WORK INSTRUCTIONS

The implementation of forest management and operations on the Michigan state forest is governed by a suite of 20 work instructions that are divided into eight categories. Internal audits assess management and operations against the requirements of all work instructions. External audits assess management and operations against the indicators in the two certification standards which are aligned with the work instructions.

SECTION VII 2023 AUDIT SCHEDULE

Internal Audits

A theme audit will be conducted in 2023, focused on difficult to regenerate stands.

External Audits

The 2023 Forest Stewardship Council and Sustainable Forestry Initiative audit will be a surveillance audit tentatively scheduled from October 10 - October 12 and will focus on the Sault Ste. Marie (west), Grayling, and Roscommon FMUs.