2018 FOREST CERTIFICATION

MANAGEMENT REVIEW REPORT

Fifth Draft Report
April 4, 2018

Approved by the DNR Resource Bureau Management Team
July 10, 2018

Forest Resources Division
IC4506 (Rev. 05/22/2018)

MICHIGAN DEPARTMENT OF NATURAL RESOURCES MISSION STATEMENT

"The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the State's natural and cultural resources for current and future generations."

NATURAL RESOURCES COMMISSION STATEMENT

The Natural Resources Commission (NRC), has the exclusive authority to regulate the taking of game and sportfish, and is authorized to designate game species and authorize the establishment of the first open season for animals. The NRC holds monthly, public meetings throughout Michigan, working closely with its constituencies in establishing and improving natural resources management policy.

The Michigan Department of Natural Resources provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, sex, height, weight or marital status under the U.S. Civil Rights Acts of 1964 as amended, 1976 MI PA 453, 1976 MI PA 220, Title V of the Rehabilitation Act of 1973 as amended, and the 1990 Americans with Disabilities Act, as amended.

If you believe that you have been discriminated against in any program, activity, or facility, or if you desire additional information, please write: Human Resources, Michigan Department of Natural Resources, PO Box 30028, Lansing MI 48909-7528, *or* Michigan Department of Civil Rights, Cadillac Place, 3054 West Grand Blvd, Suite 3-600, Detroit, MI 48202, *or* Division of Federal Assistance, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Mail Stop MBSP-4020, Arlington, VA 22203

For information or assistance on this publication, contact the Forest Resources Division, Michigan Department of Natural Resources, P.O. Box 30452, Lansing, MI 48909-7952.

This publication is available in alternative formats upon request.

MANAGEMENT REVIEW TEAM

Forest Resources Division (FRD)
Shannon Hanna - Assistant Division Chief
David Price– Forest Planning and Operations Section Manager
Keith Kintigh - Biodiversity Program Leader and Forest Certification Coordinator
Scott Jones - Forest Planning Specialist
Dennis Nezich - Field Coordinator
Jeff Stampfly – EUP District Supervisor
Don Mankee – WUP District Supervisor
Steve Milford - ELP District Supervisor
Bill Sterrett – WLP District Supervisor

Wildlife Division (WD):
Steve Chadwick - Assistant Division Chief
Terry Minzey - UP Regional Supervisor
Rex Ainslie - NLP Regional Supervisor
Craig Albright - UP Field Operations Manager
Brian Mastenbrook - NLP Field Operations Manager

Law Enforcement Division (LED):
Lieutenant Brandon Kieft

Fisheries Division (FD):
Darren Kramer - Northern Lake Michigan Management Unit Manager

Parks and Recreation Division (PRD):
Anna Sylvester - Field Coordinator

TABLE OF CONTENTS

Executive Summary **1**
Section I. Background **3**
Management Review Process 3
Focus of Management Review Meeting 3
Recommended Timeline for Review of Management Review Report 3
Implementing Program Improvements 4
Section II. Disposition of Previous Audit Results & 2017 Management Review Report **4**
2016 External Audit Findings 4
2015 and 2016 Internal Audit Findings 4
2017 Management Review Report 5
Section III. Summary of 2017 Audit Results **5**
2017 External Audit Findings 5
Internal Audit Findings 6
Section IV Implemented Actions To Address New Audit Findings **6**
Section V Pending Actions to Address New Audit **7**
Work Instruction Group 1: Plan, Monitor and Review 7
1.1 Strategic Framework. 7
1.2 Management Review Process 7
1.3 Regional State Forest Management Plan Implementation and Review 7
1.4 Biodiversity Management 7
1.5 Social Impact and Public Participation 8
1.6 Management Unit Analysis 8
Work Instruction Group 2: Forest Regeneration and Chemical Use 8
2.1 Reforestation 8
2.2 Use of Pesticides and Other Chemicals 8
2.3 Integrated Pest Management and Forest Health 9
Work Instruction Group 3: Best Management Practices 9
3.1 Forest Operations: 9
3.2 Best Management Practices 10
3.3 Road Closures 10
Work Instruction Group 5: Research 10
5.1 Coordinated Natural Resource Management Research 10
Work Instruction Group 6: Recreation and Education 10
6.1 Implementing Public Information and Educational Opportunities 10
6.2 Integrating Public Recreational Opportunities with Management 11
6.3 Sustainable Forestry Initiative Involvement and the Implementation Committee 11
Work Instruction Group 7: Integrated Implementation and Contracting 11
7.1 Timber Sale Preparation and Administration Procedures 11
7.2 Legal Compliance and Administration of Contracts 11
Work Instruction Group 8: Training 11
8.1 Staff Training for State Forest Management 11
Work Instruction Group 9: Tribal 12
9.1 Collaboration with Tribes Regarding Management of State Forest Land 12
Section VI Assessment of the Effectiveness of Work Instructions **12**
Section VII 2018 Audit Schedule **15**
Internal Audits 15
External Audits 15
Appendix I **16**
Appendix II **24**

LIST OF FIGURES

Figure 1 A Graph of Total Findings (major plus minor non-conformances) by Year for the Internal Audits of Michigan's FMUs. 13
Figure 2 Graph Showing Breakdown of Internal Audit Findings (major & minor non-conformances & opportunities for improvement) by Year for Michigan. 13
Figure 3 Graphical Summary of Audit Findings by Work Instruction for the 12-yr Period 2005-17 for State Forest in Michigan (unpublished MDNR data). 14

LIST OF TABLES

Table 1 Audit Findings for State Forest Lands in Michigan, 2018. 2
Table 2 Summary of Internal Audit Findings for 2005-17 Period for State Forest in Michigan. (Note: WI 1.7 is no longer used) (unpublished MDNR data) 14

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; and
3. Internal theme audits that look for conformance to one or more work instructions across all forest management units.

A summary of the current and unresolved findings from these audits follows.

- The 2017 external audit focused on Crystal Falls, Gwinn and Baraga FMUs in the Western Upper Peninsula. Corrective action requests were cited under both the FSC and SFI standards for excessive rutting and poor road maintenance, both of which fall short of Michigan forestry best management practices. The FSC Observations and SFI Opportunities for Improvement also identified the need for training on forest certification-related policies and procedures and the need to create high quality job and in-place training opportunities for employees.\

- The 2017 internal audits examined forest management practices in the Traverse City, Grayling and Crystal Falls FMUs. There were 38 findings, 20 of which were opportunities for improvement and 18 were minor non-conformances with the work instructions. These findings are summarized by Work Instructions in the table below. The details of the 2018 opportunities for improvement and non-conformances along with corrective actions can be found in Appendix I.
- There was no theme audit in 2017.

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

    - NCR 11-2015-09: Regarding North Country Trail maintenance;
    - NCR 71-2016-05: Regarding lease conformance for an oil and gas facility; and
    - 2016 theme audit regarding the use of pesticides.

- The 2018 external audit will focus on the Grayling, Roscommon and west Sault Ste. Marie FMUs on October 9, 10 and 11.

- There will be no internal audits in 2018. The 2018 theme audit will focus on Work Instruction 1.2 Management Review Process for Continual Improvement of Sustainable Forest Management.

Table 1 Audit Findings for State Forest Lands in Michigan, 2018.

Work Instruction	Corrective Action Request: External Audit	Observation: External Audit	Opportunity for Improvement: Internal Audits	Non-Conformance: Internal Audits	Total Findings
1.1 Strategic Framework			1	1	2
1.2 Management Review Process			1	0	1
1.3 Regional State Forest Plans			2	0	2
1.4 Biodiversity Management			2	3	5
1.5 Social Impact and Public Involvement			0	0	0
1.6 Management Unit Analysis			1	0	1
2.1 Reforestation			1	0	1
2.2 Use of Pesticides and Other Chemicals			3	2	5
2.3 Integrated Pest Management			0	2	2
3.1 Forest Operations			1	2	3
3.2 Best Management Practices	4		0	2	6
3.3 Road Closures			1	1	2
5.1 Experimental Management and Research			3	0	3
6.1 Public Information and Education			0	0	0
6.2 Public Recreational Opportunities			1	0	1
6.3 SFI Involvement			0	0	0
7.1 T-Sale Prep and Administration			2	3	5
7.2 Legal Compliance with Contracts			0	0	0
8.1 Staff Training		2	1	2	5
9.1 Tribal Relations			0	0	0

SECTION I. BACKGROUND

Michigan's state forest was dual certified in 2005 by the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (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 14 Objective 20 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 review is based on the results of the internal and external audits and includes:

1. A report of the disposition of 2016 audit results;
2. An evaluation of 2017 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; and
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 implementation responsibility;
2. Address unresolved non-conformance reports (NCRs) from past internal audits; develop strategies to resolve them and assign implementation responsibility;
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 in St. Ignace on February 20, 2018.
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 Forest Certification Team Executive Committee to the Forest Resources Division, Wildlife Division, Fisheries Division, Law Enforcement Division and Parks & Recreation Division management teams for comment by April 16, 2018.
3. Management team comments on the draft report and list of needed work instruction revisions are due on April 30, 2018 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 7, 2018, with approval desired by June 12, 2018.

Implementing Program Improvements

1. Whenever possible, immediate changes will be made to remedy identified non-conformances.
2. The Forest Certification Team will be responsible for recommending actions necessary to improve sustainable management of forest resources.
3. Division management teams will review recommended actions specifically in regard to 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. DISPOSITION OF PREVIOUS AUDIT RESULTS & 2017 MANAGEMENT REVIEW REPORT

This section provides the disposition of open findings from previous external audit and internal audits and actions identified in the 2017 Management Review Report. Details regarding the disposition of audit findings may be found in the published reports summarizing the 2016 external and internal audits.

2016 External Audit Findings

One FSC opportunity for improvement was carried over from 2015 as FSC Observation 2016.1 and was closed during the 2017 surveillance audit.

- FSC Observation 2016.1 (Originally 2015.1) was written against FSC-US Indicator 4.4.a and remains open. The MDNR should consider updating its assessment of the likely social impacts of management activities and incorporate this understanding into management planning and operations. Social impacts include effects on:

    - Archaeological sites and sites of cultural, historical and community importance (on and off the FMU);
    - Public resources including air, water and food (hunting, fishing, collecting);
    - Aesthetics;
    - Community goals for forest and natural resource use and protection (e.g., employment, subsistence, recreation and health);
    - Community economic opportunities; and
    - Other people who may be affected by management operations.

2016: Organization provided a position description for a forest economist and a timeline for hiring and economic assessment associated the Statewide Forest Plan cycle. These are positive developments consistent with MDNR's responsible forestry program. Since the actions are prospective, the Observation is being left open for tracking purposes.

2017: The MDNR has hired a full-time Forest Economist whose duties include completing a new social-economic assessment for state forest lands. The outline for a comprehensive, updated socio-economic evaluation was presented as part of a large new study to be completed July 2018. Data will be drawn from other divisions, such as Fisheries, Census Bureau, and Department of Labor and Statistics for example.

2015 and 2016 Internal Audit Findings

There are no open non-conformances from any internal audits prior to 2015. One non-conformance (Baraga Minor NCR 11-2015-09, citing Work Instruction 6.2) remains open from 2015 internal audits and is discussed further in Section V and Appendix II.

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 and Appendix II.

Three of four minor non-conformances remain open from the 2016 Theme Audit of Work Instruction 2.2 and is discussed further in Section V and Appendix II.

2017 Management Review Report

The 2017 Management Review Report contained 15 recommendations for implementation in 2017, and all but 5 were implemented. The details implemented recommendations are discussed below and the items that are incomplete have been carried over into Section V.

- Management Review Team decided to keep the single lead auditor for internal audits and the theme audit, and that internal and theme audits would rotate every other year. There were three internal audits (Crystal Falls, Traverse City and Grayling) in 2017. The 2018 audits will consist only of one or more theme audits.
- The stands coded to 'potential old growth' have all been evaluated and reclassified to Type I Old Growth, Type II Old Growth, another special conservation area status or returned to the inventory as working forest. References to 'potential old growth' have been removed from Work Instruction 1.4.
- A new forest economist position with MDNR-Forest Resources Division has been filled and will address the need for a new socio-economic assessment of the forest sector in 2018.
- A new compartment review and inventory policy is in place. The wording in Work Instruction 1.6 regarding management unit analyses was retained, but revised to specify the new policy.
- Additional information was submitted to supporting the derogation application for permethrin and work continued on a derogation application for rotenone. The FSC Pesticide Committee authorized the use of permethrin under emergency use provisions of FSC pesticides policy. Under new FSC pesticides policy, a derogation is no longer required for use of rotenone, pending implementation of a new risk-based approach to use of restricted pesticides.
- Minor non-conformance 71-2016-01 was closed as corrective action was addressed by the 2016 theme audit. Work Instruction 2.2 has been revised and clarified regarding the application of pesticides and other chemicals on state forest land.
- Minor non-conformance 42-2016-03 was closed as the unit manager has made all staff aware of the requirements of the work instruction and the need for multi-division review and approval. The decision was made not to revise the forest treatment proposal process and accommodate the building/establishment of structures and trails on state forest land using some other process.
- Minor non-conformance 71-2016-03 was closed by the unit updating the forest inventory.
- Revision of Work Instruction 3.1 was completed to accommodate the new direction related to P.A. 288 (regarding open and closed roads in the Lower Peninsula).
- Minor non-conformance 32-2016-04 as the unit has removed infrastructure pursuant to the corrective action regarding a safety issue in a long-closed state forest campground.

SECTION III. SUMMARY OF 2017 AUDIT RESULTS

There were no major NCRs from the internal audit, but there was one major CAR from the FSC standard that was addressed prior to the external audit (see Section IV). The 2017 external audit resulted in two new observations and four minor CARs. Actions to address the opportunity for improvement, observation and minor CARs are outlined in Section V. Other opportunities for improvement from the internal audits are detailed in Appendix I.

2017 External Audit Findings

The 2017 external audit was a surveillance audit for both standards and was carried out during the week of October 24-26, 2017, by Mike Ferrucci (SFI) and Beth Jacqmain (FSC) on the Crystal Falls, Gwinn and Baraga FMUs. The SFI audit resulted in two minor non-conformances and one new opportunity for improvement; and the FSC audit resulted in one major CAR (which was closed prior to the audit), two minor CARs, and one observation.

Internal Audit Findings

The internal audits were conducted in June through mid-August on the Traverse City, Grayling and Crystal Falls FMUs. The audits found no major non-conformances, 16 minor non-conformances, and 15 opportunities for improvement:

1. Traverse City FMU – The audit identified no major non-conformances, 3 multi-unit non-conformances, 1 minor non-conformances, and 8 opportunities for improvement.
2. Grayling FMU – The audit identified no major non-conformances, 2 multi-unit non-conformances, 4 minor non-conformances, and 3 opportunities for improvement.
3. Crystal Falls FMU – The audit identified no major non-conformances, 3 multi-unit non-conformances, 6 minor non-conformances, and 9 opportunities for improvement.

Actions taken resulted in the closure of 7 minor non-conformances (see Section IV) and the remaining open minor non-conformances are addressed in Section V, with details provided in Appendix I.

SECTION IV IMPLEMENTED ACTIONS TO ADDRESS NEW 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. The three 2017 internal audits resulted in 16 minor non-conformances and 15 opportunities for improvement. One of the non-conformances was closed and the actions taken are further discussed in this section. Fifteen minor non-conformances remain open and the recommendations for addressing those non-conformances as well as some of the opportunities for improvement will be discussed in Section V.

The FSC and SFI minor non-conformances, observation, and opportunity for improvement remain open and are discussed in Section V.

NCR 61-2017-02 and NCR 12-2017-02 cited Work Instruction 2.2 concerning inconsistencies in the paperwork associated with pesticide application plans, specifically with approval signatures. These non-conformances have been closed by obtaining the necessary approvals.

NCR 61-2017-03 and NCR 12-2017-05 cited Work Instruction 3.2 concerning the lack of maintenance of the resource damage database. These non-conformances have both been closed by updating the RDR database.

NCR 61-2017-04 and NCR 12-2017-07 cited Work Instruction 7.1 concerning timber sale contract administration and both non-conformances have been closed as unit presented awareness training at a unit meeting for all staff administering timber sales, and staff were reminded of the importance of documenting changes or adjustments during the timber sale prep, proposal and administration stages.

NCR 12-2017-08 cited Work Instruction 8.1 and concerned training records. This non-conformance has been closed by updating training records.

The major CAR was issued against FSC Indicator 6.6.a for permitting the use of a pesticide (permethrin) that was not on the FSC list of Highly Hazardous Pesticides. The MDNR fully conformed to requirements 9.1-9.8 of FSC-PRO-30-001 by reporting use and submitting an Emergency Use Notification to our certifying body within 30 days of use. Additionally, in 2017, MDNR updated the list of lands excluded from the scope of certification to include 316 acres where Midland County Mosquito Control routinely applies for a permit to use adulticide pesticides. The Major CAR was closed prior to the field audit.

SECTION V PENDING ACTIONS TO ADDRESS NEW AUDIT

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 for implementation. The section is organized by work instruction group.

Work Instruction Group 1: Plan, Monitor and Review

1.1 Strategic Framework.

- Scope of Certification for rail trails is a carryover from the 2014 and 2015 Management Review Reports. The Forest Resources Division (FRD)/Parks and Recreation Division (PRD) Transition Team has completed an issue statement to inform staff and clarify whether rail trail corridors within the state forest were in scope for forest certification. Presently, rail trails are within scope, but a final recommendation is pending.
    - **Discussion Points**: Dennis Nezich and Anna Sylvester completed a briefing paper in 2015 outlining various options to resolve rail trail issues along with the pro and cons of those options. They were subsequently asked to simplify the report and make a recommendation on disposition of the rail trails. Ms. Sylvester and Mr. Nezich developed a recommendation and a draft concept for a memorandum of understanding (MOU), which has been supported by the PRD State Trail Coordinator and Wildlife Regional supervisors. The report underwent final edits, was reviewed by the respective division chiefs and approved by the Resource Bureau Management Team.
    - **Recommended Decision**: The MOU needs to be completed and approved for implementation by PRD and FRD.
    - **Responsible Manager**: Shannon Hanna, Forest Resources Division Assistant Chief.
    - **Due Date**: May 30, 2018.

- 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 in providing 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:** 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:** Send out an update on the management of invasive species on state forest land to field staff and amend the work instruction with respect to language about the early detection-rapid response requirements until this can be developed for implementation.
    - **Responsible Manager:** David Price, Planning and Operations Section and Sue Tangora, Forest Health Section.
    - **Due Date:** May 30, 2018

1.2 Management Review Process

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

1.3 Regional State Forest Management Plan Implementation and Review

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

1.4 Biodiversity Management

- 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. The solution needs to come from Wildlife Division.
- 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**: There appear to be issues with Wildlife Management Areas in terms of their boundaries and what is being reported as being In-scope or Out-of-scope for the purposes of certification. Information being provided to the public is in error in many of these cases. The issue is not new and has been in the works to fix since before 2015.
- **Recommended Decision**: Conduct an evaluation of In-Scope/Out-of-Scope lands including State Forest lands administered by Fish Division (Research Areas and Rearing Ponds) and Wildlife Division (GMO Openings and Wildlife Management Areas). For Wildlife Management Areas, there needs to be a working group formed and assigned the task of developing a recommendation to Wildlife Division for approval and implementation to fix these issues.
- **Responsible Manager**: Keith Kintigh and Pat Lederle
- **Due Date**: September 30, 2018

- A new issue has come to light that was not found as a result of an audit finding: Foresters use the SCA/HCVA layer in the GDSE to identify streams that need to be buffered for trout, and the layer has been deemed to be incorrect. The SCA/HCVA layer does not agree with the 'fish layer' – the two layers do not agree with each other. This issue has been around for several years, but has yet to be addressed.
  - **Discussion Points**: Need to further investigate the issue and its magnitude in order to get it addressed.
  - **Recommended Decision**: Scott Jones to work with Darren Karmer to evaluate the issue and suggest a solution to be included in this report by April 30, 2018.
  - **Responsible Manager**: Dave Forstat, Manager, Resource Assessment Section and Darren Kramer, Lake Superior Watershed Manager.
  - **Due Date**: September 30, 2018

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

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

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. So far only one region has provided an acceptable root cause, corrective action and proposed completion date which has resulted in closure of that non-conformance. The remaining three non-conformances need to be addressed. In addition, the Work Instruction 2.2 Roles and Responsibility Table needs to be reviewed as some of the responsibilities described in the text are not included in the table.
  - **Discussion Points**: Nathan Poley will send out a link to a potential solution that will be similar to one that he is developing in CITRIX for endangered species for folks to review.
  - **Recommended Decision**: Develop a spreadsheet fix within CITRIX considering Tom Seablom's ideas from the Gwinn unit as at least an interim fix until the work on the forest treatment proposal project is completed.
  - **Responsible Managers**: Dave Forstat, Manager Resource Assessment Section
  - **Due Date**: April 30 and May 7, 2018.

- NCR 61-2017-02 cited Work Instruction 2.2 and concerned missing pesticide application plans and pesticide use evaluation reports. One of the issues found in the Traverse City unit was related to the use of an injectable chemical to treat oak wilt. In this case, there was no public notification of the application and there is uncertainty around the requirement given the details on the chemical label.

There was also no PUER, and in this case, the follow-up treatment evaluation may take as long as five years. This issue is not captured by the revisions that were recently approved for Work Instruction 2.2, and the work instruction assumes foliar treatments which can be evaluated in the next growing season for effectiveness of the treatment.

- **Discussion Points**: This non-conformance has been closed at the unit level, but the wording in Work Instructions 2.2.2.c and 2.3.1 needs to be edited to reflect the public notification requirements (Pesticide Application Plan) to coincide with the product label and the extended (up to five years) evaluation period (on the Pesticide Use Evaluation Report) to determine effectiveness of the treatment. There is also a need to add two chemicals to the approved list to deal with emerald ash borer, oak wilt and potentially hemlock wooly adelgid.
- **Recommended Decision**: Revise Work Instruction 2.2, the Pesticide Application Plan form and the Pesticide Use Evaluation Report forms.
- **Responsible Manager**: David Price, Manager, Planning and Operations Section
- **Due Date**: May 7, 2018.

2.3 Integrated Pest Management and Forest Health

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

Work Instruction Group 3: Best Management Practices

3.1 Forest Operations:

- NCR 72-2017-04 cited Work Instruction 3.1 and concerned the absence of partial forest treatment completion reports for opening maintenance.
- Without support of the work instruction, staff in the Grayling unit has been using one forest treatment proposal and a spreadsheet to track opening maintenance treatments and has not been doing annual partial treatment completion reports. Do we wish to revise the work instruction to permit this type of approach that reduces paperwork? It is currently part of the ongoing forest treatment proposal discussion, but do we need some interim direction at least to deal with this non-conformance?
  - **Discussion Points**: Discussion suggested that other units are probably doing the same thing and that the paperwork requirement is burdensome. The intent of the work instruction is being met, activities are being approved at compartment review, and a completion report needs to be completed at the end of the 10-year planning period. Difference between tracking the same type of treatment, conducted annual over multiple years vs. different types of treatments over time at the same site. The spreadsheet should go to the Land Administering Division at the end of each year.
  - **Recommended Decision**: Revise and clarify the work instruction related to annual reporting to permit the use of spreadsheets to track annual treatments in place of partial completion reports done on an annual basis.
  - **Responsible Manager**: David Price, Manager, Planning and Operations Section
  - **Due Date**: June 1, 2018.
- SFI Minor Corrective Action Request 2017.01 cited sections of skid trails with rutting that exceeds Michigan's limit of rutting.
- FSC Minor Corrective Action Request 2017.2, FSC Indicator 5.3.b cited multiple sections of skid trails on two timber sales with excessive rutting that exceeded the length and depth limits with no accompanying inspection notes nor attempts to repair the ruts.
  - **Discussion Points**: Corrective actions have been developed and are in place. The action will involve site remediation and staff training by the end of early summer.
  - **Recommended Decision**: Implementation of corrective actions before the fall external audit.
  - **Responsible Manager**: David Price, Manager, Planning and Operations Section
  - **Due Date**: September 1, 2018.
- A review of the feedback from the 2015 Theme audit identified the need to review the wording in Work Instruction 3.1 regarding the application of chemical pesticides under the authority of a non-event use permit (PR1138-1) for rights-of-way maintenance, research or treatment of invasive species. Changes will involve PR1138-1, PR1138-4, PR1138-5, Policy 26.04-04 and Policy 28.46-05, as well as the work instruction. Additionally, there is no requirement for follow up effects monitoring for non-MDNR chemical treatments.

- **Discussion Points**: Discussed the need to change the wording in the work instruction and the related policy documents and forms. There was some concern about requiring non-MDNR applicators to do follow-up inspections and reporting on the effectiveness of the treatments. Scott Jones to follow up and get some insight on this issue with Roxanne Merrick to be included in the next review draft of this report. Consultation was completed and the recommendation is to not require any further reporting on effectiveness.
- **Recommended Decision**: Revise the work instruction, forms and policy accordingly.
- **Responsible Manager**: David Price, Manager, Planning and Operations Section
- **Due Date**: May 7, 2018.

3.2 Best Management Practices

- SFI Minor Corrective Action Request 2017.02 cited that road drainage provisions on the Little Garlic Forest Road, Gwinn FMU were not maintained according to the requirements of Michigan's best management practices.
- FSC Minor Corrective Action Request 2017.3, FSC Indicator 6.5.b also cited road drainage problems on the Little Garlic Forest Road that indicated that the Michigan best management practices were not being met.
  - **Discussion Points**: The accepted SFI Corrective Action Plan states: The DNR will conduct refresher BMP and RDR training for field staff in 2018. Training will help to preclude similar or related BMP non-compliance issues in the future. The location of cited evidence is adjacent to a marked sale which has yet to be offered for sale. As is MDNR standard practice, remediation of the road will be a timber sale specification requirement which must be completed prior to any hauling. Additionally, MDNR Timber Sale General Conditions and Requirement 4.2 - Maintenance (2/04) requires that: "The purchaser shall maintain all existing roads in a condition equal to or better than the condition prior to the sale". If sale scheduling delays repairs, MDNR will complete the work internally prior to October 2018.
  - **Recommended Decision**: Implementation of corrective actions before the fall external audit.
  - **Responsible Manager**: David Price, Manager, Planning and Operations Section.
  - **Due Date**: September 1, 2018.

3.3 Road Closures

- NCR 12-2017-03 cited Work Instruction 3.3 specific to a hunter walking trail that had been closed to vehicular traffic with no record of a Director's Order.
  - **Discussion Points**: The work instruction has been revised to account for direction and consistency with respect to PA 288. There still needs to be some attention to the closing of roads related to Grouse Enhanced Management Sites (GEMS) and especially with respect to public communications regarding the potential closures. Discussion of this issue brought to light that this particular road closure had been submitted three times and has yet to see a Director's Order closing the road despite Director's Orders for all other closures that were submitted.
  - **Recommended Decision**: It was recommended that Don Mankee work with Matt Fry to resolve the issues regarding this road.
  - **Responsible Manager**: Don Mankee, District Supervisor, Western Upper Peninsula
  - **Due Date**: September 1, 2018.

Work Instruction Group 5: Research

5.1 Coordinated Natural Resource Management Research

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

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

- Still on the books Internal audit NCR 11-2015-09 related to Work Instruction 6.2 cited that there was no up-to-date volunteer agreement for work conducted by volunteers on the North Country Trail on certified state forest land, nor was there a recording of volunteer hours as required by Parks and Recreation Division. Further investigation uncovered that the issue was statewide involving other trails. Parks and Recreation Division has developed a statewide solution that will be implemented to correct this non-conformance by June 1, 2016.
    - **Discussion Points**: This issue was missed for the agenda for the 2016 Management Review, but a corrective action has been developed by Parks and Recreation Division, and it was discussed at the April 25, 2016 meeting of the Forest Certification Team. Discussions between PRD and NCT staff are ongoing and are focusing on a maintenance form, but the ultimate solution to this issue should be uniform for the MDNR (i.e., same procedure for PRD and FRD lands). There was some discussion around the vetting of the corrective action (the solution to the problem).
    - **Recommended Decision**: The proposed solution needs to be reviewed by Rex Ainslie, Terry Minzey, Dennis Nezich and Anna Sylvester before going to the assistant chiefs of the three divisions for sign-off before being approved by the Natural Resources Commission.
    - **Responsible Manager**: Anna Sylvester, Parks and Recreation Division Field Coordinator.
    - **Due Date**: June 1, 2018.

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

- NCR 72-2017-05 cited Work Instruction 7.1 and concerned the lack of hearing protection on a job site and the lack of documentation of onsite post-harvest meetings as called for in the contracts.
    - **Discussion Points**: There is some question regarding how well the specifications of the work instruction mirror those of MIOSHA.
    - **Recommended Decision**: Unit staff will be advised of direction in Work Instruction and participate in Timber Sale Administration training by the end of early summer.
    - **Responsible Manager**: Susan Thiel, Unit Manager, Grayling Forest Management Unit.
    - **Due Date**: April 30, 2018

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.
- SFI Observation 2017.1 identified the need for training programs related to department, division and certification-related policies and procedures.
- FSC Observation 2017.1, FSC Indicator 4.1.b cited the need to create high quality job opportunities for employees and the need for in-place training opportunities for employees.
- 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**: The MDNR training team could develop the memo to remind staff of the training requirements and to recommend or develop an appropriate database(s) for training records.
- **Responsible Manager**: Laura Cooper, HR Manager, Forest Resources Division
- **Due Date**: September 30, 2018

Work Instruction Group 9: Tribal

9.1 Collaboration with Tribes Regarding Management of State Forest Land

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

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.

The 2017 internal audits resulted in 39 findings categorized as minor non-conformances and opportunities for improvement. These issues were related to 15 of the 20 work instructions. The Plan, Monitor and Review work group had 12 findings; Forest Regeneration and Chemical Use had eight; Best Management Practices had seven; Research had three; Recreation and Education had one; Integrated Implementation and Contracting had five; Training had two; and Tribal had none.

Including the findings of the external audit, the number of findings bumps up to 46 on 15 work instructions. Work Instruction 2.2 Application of Pesticides had a major CAR, 3.1 Forest Operations had two minor CARs, 3.2 Best Management Practices had two minor CARs and 8.1 Training had two observations.

The need for improved management related to the issues is discussed in Section V and Approved Decisions will be identified during the management review meeting. Closed NCRs are discussed in Section IV above.

A review of the audit findings across the twelve years (2005 – 2017) that internal audits have been conducted in Michigan shows some rather interesting results (Table 2 and Figures 1 and 2). The review compares total audit findings and findings categorized as major non-conformances (including the new multi-unit non-conformances), minor non-conformances and opportunities for improvement for the twelve-year period.

Overall, the number of findings has tapered off (by 2009) and has remained relatively stable in terms of total findings (Figure 1). There have been no major internal audit non-conformances since 2011 (Figure 2). Work Instructions 1.4, 2.1, 3.1, 3.2 and 7.1 continue to garner the most findings (Figure 3).

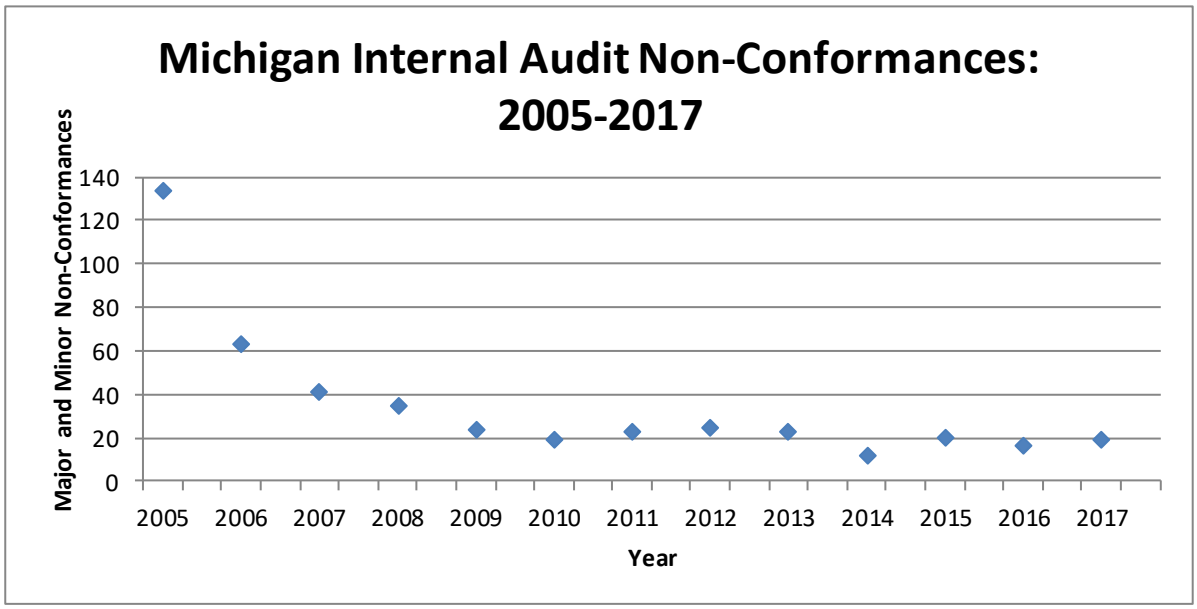

Figure 1 A Graph of Total Findings (major plus minor non-conformances) by Year for the Internal Audits of Michigan's FMUs.

The work instructions that correspond to the major issues are related to biodiversity management, reforestation, forest operations, best management practices, timber sale preparation and training (Table 2, yellow highlights). A more detailed look at the results shows that most of the first group of work instructions, related to planning, review and monitoring, needs further attention in terms of compliance with the direction in the work instructions (first four points in Figure 3).

These findings could and should be used to focus the internal audits, theme audits and improvements to the management framework.

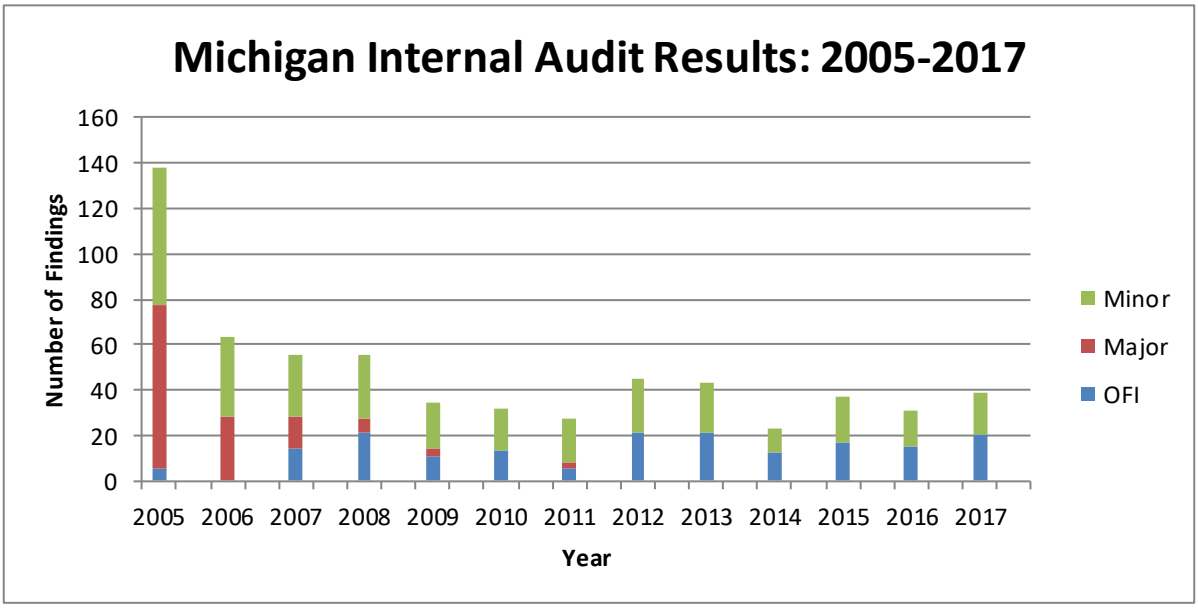

Figure 2 Graph Showing Breakdown of Internal Audit Findings (major & minor non-conformances & opportunities for improvement) by Year for Michigan.

Table 2 Summary of Internal Audit Findings for 2005-17 Period for State Forest in Michigan. (Note: WI 1.7 is no longer used) (unpublished MDNR data)

Work Instruction	MjNCR	MiNCR	OBS	Total
1.1	9	13	18	40
1.2	9	18	15	42
1.3	16	12	16	44
1.4	12	22	29	63
1.5	3	2	11	16
1.6	10	5	12	27
1.7	6	2	8	16
2.1	7	18	22	47
2.2	3	20	15	38
2.3	6	9	15	30
3.1	9	46	24	79
3.2	7	18	23	48
3.3	7	9	12	28
5.1	6	13	20	39
6.1	0	0	17	17
6.2	8	12	15	35
6.3	0	2	8	10
7.1	9	41	22	72
7.2	0	17	11	28
8.1	7	22	17	46
9.1	3	6	6	15
Total	137	307	336	780

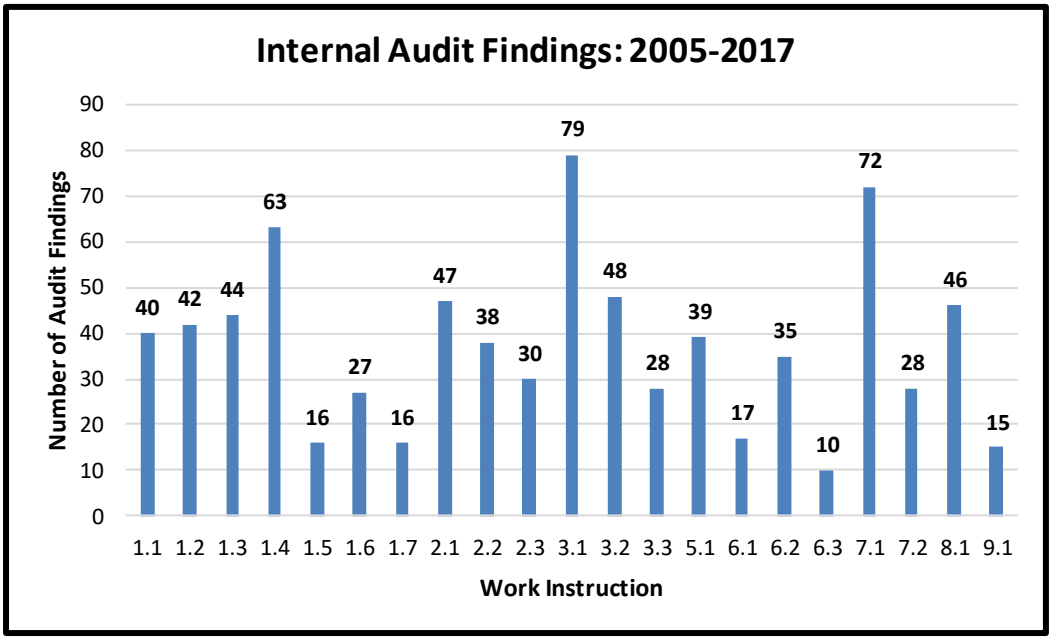

Figure 3 Graphical Summary of Audit Findings by Work Instruction for the 12-yr Period 2005-17 for State Forest in Michigan (unpublished MDNR data).

SECTION VII 2018 AUDIT SCHEDULE

Internal Audits

There will be no traditional forest management unit internal audits in 2018, but a theme audit will be conducted. The Management Review Team recommends a theme audit of Work Instruction 1.2, focused upon our management review process, the role of the Forest Certification and Management Review teams, and the structure of auditing functions.

External Audits

The 2018 Forest Stewardship Council and Sustainable Forestry Initiative audit will be a surveillance audit. The surveillance audit will be conducted on October 10, 11 and 12, 2018 in the Grayling, Roscommon and the west side of the Sault Ste. Marie FMUs.

APPENDIX I

Opportunities for Improvement and Non-Conformances from the 2017 Internal Audits for the Traverse City, Grayling and Crystal Falls Forest Management Units.

Traverse City Forest Management Unit:

OFI 61-1, W.I. 1.1: Staff is generally unaware of the planning hierarchy and would benefit from related training.
This need will be addressed in the work instruction training that is being planned for Forest Resources Division (FRD) staff later this calendar year.

OFI 61-2, W.I. 1.2: Staff is generally unaware of the content of the certification related documents and could benefit for a better understanding of the content and where to find it.
The content of specific forest certification related reports and where to find them will be covered in detail during the planned FRD work instruction training session. Discussion at a unit staff meeting would also be encouraged.

OFI 61-3, W.I. 1.4: On the "Nod to CCC Pine" timber sale, it was suggested that two small islands were mapped as retention, but that the intent was not long-term retention. It is recommended that areas identified to be left that are not designated as retention should be coded as "reserve areas" rather than retention. The new rules state that this should be done at the time of sale set-up to ensure that they are deducted from the sale area. The retention rules should be followed for each cover type including that for minimum polygon size (0.1 acres).
A training session needs to be held for the Unit to go over the Retention Guidelines and include discussion on reserve areas.

OFI 61-4, W.I. 1.6: More timely input and better value added to the compartment narratives from all divisions. More practical explanation of how the Pre-Inventory and Pre-Review analyses impact forest management on the unit should be provided.
Work with the forest planner to develop a more practical explanation of how Pre-Inventory and Pre-Review analyses impact forest management to provide all participants. Suggest that the FRD Chief discuss the importance of timely input to compartment narratives with the other division chiefs at a DNR Management Team meeting.

OFI 61-5, W.I. 2.2: There is a lack of clarity around the need/requirement of public notification regarding the use of injectable pesticide. Clarity needs to be provided to field staff.
This will be explored further and direction will be provided and included in the revisions to Work Instruction 2.2 once the new direction on forest cultivation is complete.

OFI 61.6, W.I. 3.3: Road Closures – Interviews with staff revealed they were not very familiar with work instructions and the road closure process. Some additional training may be needed.
Conduct a review of work instructions at unit staff meetings.

OFI 61-7, W.I. 5.1: The audit team looked at two examples of experimental management that could provide results that are useful to many mangers and should be considered for inclusion in the experimental management project database. One involved opening maintenance and one for treating oak wilt.
Make sure the Research Coordinator is made aware of all research and experimental projects so that projects are entered into the project database.

OFI 61-8, W.I. 8.1 Training: The audit team found that there are gaps in needed training and that employees believe that training needs are not being met. Training opportunities are lacking for foresters in the professional/ecological/current science subjects. New hire employees are receiving training and fire training is available, but over time foresters are not receiving continuing education in forestry science. There are gaps in who is trained, as some training opportunities are not given regularly. There is unevenness in available training statewide.

This shortcoming will be presented to FRD and Wildlife Division (WD) training officers for discussion and potential resolution by the Training Advisory Team.

Multi-Unit Minor Non-conformance 61-2017-01, Work Instruction 1.4 Biodiversity Management: Information available to field staff through the Geographic Decision Support Environment (GDSE) indicates that Lake Dubonnet and adjacent lands (State Wildlife Management Area) are a type of special conservation area. In addition, a State Game Area map for Lake Dubonnet is available to the public through the DNR website and indicates the application of State Game Area land use rules on State Forest Land adjacent to the flooding. There was misunderstanding from field staff on the special conservation area status of the flooding and the flooding is not included on any regional lists of State Wildlife Management Areas or on the In-scope/Out-of-scope Lands list memo developed in September 2009.
Corrective Action: The WD needs to determine if this flooding is considered to have been fully transferred to Fisheries Division (FD) to be managed solely for fisheries interests and whether this is desirable. If so, what is the official process for transfer given the use of dedicated funds? If it is desirable to fully transfer this area to FD, it should be removed from WD Project Areas listing once that process is completed. If, however, WD desires to retain interest in this flooding, then it will need to work with FD to determine management needs and to ensure consistency in the special conservation area boundary. Either way, it should be added to the In-scope/Out-of-Scope Lands list memo.

Minor Non-conformance 61-2017-02, Work Instruction 2.2 Use of Pesticides (Closed): Found examples of PAPs with no district supervisor sign off, ones not approved by second licensed applicator, no variance for out-of-year-of-entry treatments, no PUER, and no FTP completion reports.
Reviewed documents include:

1. C61-605 Compartment ?? from 2015
2. W61-626 Betsie River State Game Area from 2013
3. W61-627 Betsie River State Game Area from 2013
4. W61-628 SFI from 2013
5. W61-655 Manistee 102 from 2015
6. W61-686 Manistee 102 from 2016
7. C62-830 Compartment 175 from 2011
8. C62-866 (lack of signatures and partial completion reports)

Corrective Action: All the observed non-conformities indicate a clear breakdown in the ability to track the status of a forest treatment proposal and document all the required forms that may go with a forest treatment proposal. The FRD's Management Team will be made aware of this issue and urged to place the development of such a tracking database on top of the priority list. In the meantime, a tracking checklist for forest treatment proposals will be developed and attached to the individual forest treatment proposal folder. This checklist will include boxes indicating approval for the forest treatment proposal has been received by all necessary parties, boxes indicating whether use of herbicide is needed which will trigger another set of boxes for the pesticide application plan and pesticide use evaluation report to be received. There will also be a place holder on the checklist for the applicators certification number to be written which will then be transferred to the forest treatment completion report when it is received.

Multi-Unit Minor Non-conformance 61-2017-03, Work Instruction 3.2 Best Management Practices (Closed): Although there is an extensive database going back to 2005, the database is not being maintained to the standard suggested in WI 3.2-4. The information that should be included in the database for each entry is often incomplete and, in some cases, totally absent which makes conformance to WI 3.2-5 difficult and sub-standard. Many have incomplete data; and some have no useful information at all (61098102006016, 61098102006050, 61047282010001, 61050282012001 and 61101402014024). Some that were identified as high or urgent priority also had little information and were not closed in the database (61022102006049, 61030102010001, 61098102006010, 61999402009001 and 61999402010003). Staff was unaware of who was responsible for closing Resource Damage Reports after the work was complete or who was responsible for management of the database. There are more than enough issues to indicate a systematic failure.

Corrective Action: All old reports need to be verified and if individual resource damage reports are found to be non-existent (i.e. not applicable to state forest land), they should be removed from the system. In addition, a training session needs to be developed and presented to unit staff. In the meantime, staff will be instructed to review Work Instruction 3.2 and will be given a review on filling out the form and database at the next Unit Staff Meeting. The role for maintaining the database and ensuring adequate and complete information is entered will be assigned to the Fire Supervisor.

Hold a training session to enlighten staff as to how to enter reports, what data is pertinent and how to use the Citrix Resource Damage Report database system. Make status of resource damage report grants and repairs a topic of at least three staff meetings per year. Assign old resource damage report for re-evaluation and update.

Multi-Unit Minor Non-conformance 61-2017-04, Work Instruction 7.1 Timber Sale Preparation (Closed): It was observed during the audit that there were several non-conformances with work instruction 7.1. Examples below:

1. The omission of balsam fir from the contract specifications for the Bugger Hardwoods Sale should have resulted in a contract amendment since it was part of the prescription, it was cruised, paid for and was actually harvested. Without mention of balsam fir in the specifications, loggers do not have direction as to how much balsam fir to cut in which payment units.
2. The Cinder Aspen-Oak sale required a variance to add oak to the cutting volume, and there is no record of a variance being requested or approved.
3. In the Nod to CCC Pine Sale, the cut order and payment history do not conform to the specifications in the contract.
4. Staff failed to specifically document that a post-sale conference occurred when it was required in the contract specifications (Section 5.1.4 Nod to CCC Pine Sale – 61-021-15-01) (This is the multi-unit part of the non-conformance).
5. Where there was damage to residual trees, documentation suggested that the producer expressed concern over tight rows of red pine when the initial damage started; there was no bark slippage specification in the contract which had been amended from a winter operation and no attempt at correcting the problem was documented. Excessive damage resulted in a double stumpage penalty. The bark slippage specification should have been added when the contract was amended.

Corrective Action: Awareness training will be given at a unit meeting and all staff administering timber sales will be reminded of the importance of documenting changes or adjustments during the timber sale prep, proposal and administration stages.

Grayling Forest Management Unit:

OFI 72-1, W.I. 1.3: The woodcock and grouse habitat specification suggested in the Regional Forest Management Plan are not being followed and there is some question as to the appropriateness of the woodcock specification. This specification should be reviewed for appropriateness. If it is considered appropriate, new direction should be disseminated. If it needs to be revised, then it should be revised and notification sent to the field and the plan should be amended.
Since this issue has implications beyond the Grayling unit, it will be elevated to the Forest Certification Team for discussion and resolution.

OFI 72-2, W.I. 5.1: The audit team looked at two examples of experimental management that could provide results that are useful to many other mangers and should be considered for inclusion in the experimental management project database. One involved a different approach to snowshoe hare habitat specifications and one for experimental oak regeneration – both clearly experimental in nature.
Both the experimental hare habitat project and the experimental oak harvesting should be written up on Form 4010 and submitted to the Great Lakes Experimental Management website. Both projects should be monitored and documented through to some logical conclusion with management recommendations being made in a final report.

OFI 72-3, W.I. 7.1: Sale Inspection forms used on some sales were inconsistent and dated although the first page was of the correct vintage. One sale used a mix of three different form vintages. Use the most current

and up-to-date form when documenting sale inspections and recognize that form R4050 consists of multiple pages.
Staff has been informed that the new forms should be used and staff has purged the old forms and is now using the new forms.

Minor Non-conformance 72-2017-01, Work Instruction 1.1 Strategic Framework: Four staff had a difficult time describing the types of biodiversity areas and none could say what the difference was between a Special Conservation Area, High Conservation Value Area, Designated Habitat Area or an Ecological Reference Area. The implication being that the above requirement cannot be met if staff is unaware of the definitions of the categories for the protection of biodiversity.
Corrective Action: The Unit Manager will review biodiversity terms and Work Instruction 1.1 with Forest Management Unit staff at an upcoming unit meeting to make sure staff understands terminology and concepts. This will only cover Forest Management Unit staff in the Grayling Unit. The following recommendations will be forwarded through Forest Management Unit to work to address the Division's gap in training:

1. Provide a refresher course during the spring of 2018 which will be provided to Northern Lower Peninsula Forest Management Unit, Wildlife Division and Parks and Recreation Division staff.
2. Have Forest Management Unit training officer work to provide training opportunities to other Division staff such as PowerPoint presentations that can emailed to staff and/or provide training at other Division in-service training sessions or meetings.

Minor Non-conformance 72-2017-02, Work Instruction 1.4 Biodiversity Management: While there is a draft management plan that includes specific direction for monitoring, that monitoring has not taken place. Unit staff has taken it upon themselves to address some monitoring, but much of that prescribed monitoring is beyond the capabilities of those staff and is or has not been carried out.
Corrective Action: FRD annually contracts with Michigan Natural Features Inventory (MNFI) to assess ecological reference areas for quality, distribution, and threats with the goal of resurvey of an individual ecological reference area at least every 10 years. The Forest Pocket Ecological Reference Area (Element Occurrence Identification Number 17323) was surveyed by MNFI in 2015 resulting in an adjustment to the underlying natural community element occurrence boundary to reflect recent prescribed fire and cutting. The Element Occurrence Rank remained unchanged (C – Fair estimated viability). This monitoring approach is consistent with the Work Instruction.
Management and monitoring direction for the Forest Pocket Ecological Reference Area should be updated using Planning Framework for Ecological Reference Areas on State Forest Lands (IC4198) within the next compartment planning cycle, Year-of-Entry 2020.

Multi-Unit Minor Non-conformance 72-2017-03, Work Instruction 2.3 Integrated Pest Management: During the 2017 Grayling audit field tour of the 4-Mile Sate Forest Campground (a campground designed specifically for equestrian use), it was discovered that no specific guidance regarding measures to prevent establishment and/or limit the spread of invasive plant species has been received or is currently in place (this is the multi-unit part of the non-conformance). Horses are known vectors for the spread of various plant species as they ingest the seeds, and then spread them via their manure. It is therefore likely that any facilities where horses are used for recreation on state forest lands are at a high risk for the introduction and/or spread of invasive plant species.
Corrective Action: The State of Michigan is investigating the implementation of the Play Clean Go media campaign to limit the spread of terrestrial invasive species. This campaign will direct messaging to a variety of target audiences throughout Michigan to take steps to reduce the spread of invasive species. The draft Terrestrial Invasive Species State Management Plan calls for the expansion of weed free materials including weed free mulch and hay. The development and implementation of such a program would reduce the likelihood of spreading invasive species through horse manure. The state is currently updating its Early Detection and Response Policy to include terrestrial invasive species.

In addition, an early alert system is set up in MISIN, the state's invasive species database. It is available for any manager to add species for which they would like to receive alerts for in a given region or county when reported to MISIN. Finally, all of the state forest system falls into the borders of a Cooperative Invasive Species Management Area (CISMA). Michigan provides core funding to all the CISMAs in the state as part of the Michigan Invasive Species Grant Program. As part of their funding, they: 1.) provide education and outreach

about invasive species to limit their spread, 2.) survey their areas for invasive species, 3.) respond to reports of new invasive species in their areas, and 4.)conduct invasive species control projects.
Parks and Recreation Division will look at installing a manure bunker in 4-Mile Sate Forest Campground to help control manure and the potential spread of invasive plant species.

Minor Non-conformance 72-2017-04, Work Instruction 3.1 Forest Operations: Continuing maintenance of wildlife openings was documented with a spreadsheet. This spreadsheet only included treatment type and status; there are no notes relating to other details about the implementation of the treatment. Partial completions are required yearly for intrusive activities. It was also noted on east tour stop 7 (Frost Pocket Ecological Reference Area) that the prescribed burns only had a burn report, but not a FTP completion report. Partial completions are required yearly for intrusive activities.
Corrective Action: The work instruction should be revised to accept equivalent documentation to that of the Forest Treatment Proposal partial completion report for routine maintenance activities that occur numerous times throughout a ten-year cycle. For example, grassy openings and food plots are treated annually, so it would be more efficient to have a spreadsheet that tracks completion of various stages of management of these areas annually and submit a completion report only at the end of the 10-year planning cycle.
For prescribed burns it is anticipated that in the near future, the electronic fire report will automatically populate a Forest Treatment Proposal completion report, which will be generated by the burn boss for the fire.
Wildlife Division staff will work with Forest Resources Division counterparts to develop an acceptable spreadsheet by November 1, 2017 for wildlife openings and food plots and completion reports for all fires will be completed until the new electronic fire report system is implemented.

Multi-Unit Minor Non-conformance 72-2017-05, Work Instruction 7.1 Timber Sale Preparation: Truck driver, skidder operator, and loader operator all operating within 50 feet of a chipper, skidder, and loader were wearing no hearing protection. The truck driver said he did not have any hearing protection. Sale administrator, fire officer, and unit manager were all uncertain of the requirements for hearing protection. There were several sales (72-046-16-01, 72-024-14-01, 72-029-13-01) observed which had specification 5.1.4 calling for a post-sale conference on site. The sale inspection notes for each of these sales did not show that the meeting took place (this is the multi-unit part of the non-conformance). Some inspection notes showed a phone call discussing what work needed to be done, but no onsite meeting was indicated.
Corrective Action: Training will be provided for all staff to ensure that all staff is aware of the safety requirements when on an active timber sale regardless of whether or not they are a sale administrator. Safety language in the contracts will also be edited for clarity.
Specification 5.1.4 will now only be used if an onsite post-harvest meeting is required otherwise the general specification 5.1 will be the default. When 5.1.4 is used, staff will be advised they must add “post-sale harvest conference” to the administration notes for their meeting so it gets clearly recognized that specification 5.1.4 is being met.

Minor Non-conformance 72-2017-06, Work Instruction 8.1 Staff Training:

- Unit manager was not familiar with FRD core training needs for foresters and technicians.
- Fire Officer has a personal training list that is substantially longer than record obtained from FRD training officer.
- Secretary did not know if she had a training record; while she produced several documents of training and a State of Michigan record, no FRD records were produced.
- Fisheries Biologist does not list recordable trainings in his training record.

Corrective Action: The Unit Manager will incorporate core training needs lists into training plans for staff using the 2016 training documents checklist provided starting in Fiscal Year 2018. The Unit Manager will also request copies of staff training records and reconcile differences between local tracking and Lansing records during the next round of performance appraisals in October/November. It is recommended a simpler tracking system for our training be developed that staff and managers can easily view. Currently staff and managers cannot view their Lansing training records unless they request a copy from the training specialist. Would there be an opportunity to link training records to the Michigan Human Resources self-service gateway so staff and managers have easy access to the “official training records” held by Lansing? That would allow the manager to easily check the records when performance appraisals are being done to make sure the employee’s records are up-to-date.

Susan Thiel will relay the need to have records for the Secretary to Steve Anderson and Lynn Carter-Regier and encourage them to update her training records.
Supervisor will review the reporting requirements of the work instruction with the employee to ensure that there is a clear understanding of what training is to be reported to the training officer for inclusion in the training database.

Crystal Falls Forest Management Unit:

OFI 12-1, W.I. 1.3: The Grouse Enhanced Management Site has been formally identified and given the difference in management direction and the amount of aspen in the area, the age-class distribution analysis should be revised so that there are no surprises in this planning period.
Training is being developed and will be provided in late spring or early summer 2018.

OFI 12-2, W.I. 1.4: Timber sale contracts in hardwood stands and other appropriate Red-Shouldered Hawk habitat should contain the specification 5.8.5 Protection of Raptor Nests.
This will be addressed as part of the larger amendment process for each of the three Regional State Forest Management Plans and should be completed by December 15, 2018.

OFI 12-3, W.I. 2.1: Breakup Jack pine (Forest Treatment Proposal F12-396) sale was harvested in 2006 as part of jack pine budworm control. The stand was initially identified for natural regeneration, but the natural regeneration was deemed a failure in 2011. This stand did not appear in the regeneration tracking system until it switched over to artificial regeneration after 2011. The Unit should consistently implement the regeneration monitoring protocol either through use of the regeneration time clock spreadsheet or in Michigan Forest Inventory (MiFI) (W.I. 2.1.5).
Requiring this specification in appropriate contracts will be discussed during a spring 2018 staff meeting.

OFI 12-4, W.I. 2.2: At artificial regeneration sites during the Crystal Falls Internal audit, auditors observed several opportunities for improved communication between unit staff and timber management specialist on the status of site preparation activities.
Implementation of the regeneration monitoring protocol will be discussed with staff as part of a spring 2018 staff meeting in the unit.

OFI 12-5, W.I. 2.2: Work Instruction 2.2 was updated in 2017 to indicate that pesticide application plans shall only be developed by Certified Pesticide Applicators.
Staff turn-over issues have been addressed and all staff is aware of the need to ensure lines of communication are open.

OFI 12-6, W.I. 3.1: Vernal Pool Protection in Timber Sales. Within timber sale #12-065-17-01, “Pipeline Mix”, an existing vernal pool was excluded from the timber sale with use of a red line. However, 1) the site should have been identified on the timber sale map; 2) timber sale spec 5.4.6 – wet area protection should have been included; and 3) buffering width, protections and allowable activities should be developed in accordance with The Michigan DNR/DEQ Sustainable Soil and Water Quality Practices on Forest Land (2018).
The unit manager will ensure that staff preparing pesticide application plans in the unit is appropriately certified for the use of chemicals being proposed.

OFI 12-7, W.I. 5.1: Staff was unaware of the need to use the Experimental Management project form R4010 to document experimental treatments and that these projects are deposited in the Great Lakes Silviculture Library. For example, staff prescribed treatments that included whole tree skidding, scalping with a bulldozer, and scarification with a bulldozer and swing rake to naturally regenerate red pine, as well as creating patch-cuts and harvesting all non-oak species to naturally regenerate red oak. Using the correct protocol will help ensure experimental prescriptions will be monitored appropriately, results will be shared with other units and agencies and treatments are not unnecessarily replicated.
Staff will be made aware of the form R4010 for Experimental Management projects and the related requirements for experimental treatments at an upcoming spring 2018 staff meeting.

OFI 12-8, W.I. 6.2: There was evidence to suggest that on recreation trail designations, reroutes and other issues that impact the resources, managed by the various divisions, communication is inconsistent and approvals are going through without all impacted parties being aware, particularly on trails that crossed multiple ownerships.
The unit manager will ensure that staff understands the need for communication with staff from other divisions and other landowners when work is to be performed on existing trails or new trail development on state forest land.

OFI 12-9, W.I. 7.1: Consideration should be given to recording comments in the comment section of the Pre-Sale Checklist to provide a clearer picture of what is needed in the contract and why.
The need for supporting documentation in the form of comments on the pre-sale checklist will be addressed at a staff meeting to be held in the spring of 2018.

Multi-Unit Minor Non-conformance 12-2017-01, Work Instruction 1.4 Biodiversity Management: There are several inconsistencies related to information available to staff and the public regarding State Wildlife Management Areas in the Crystal Falls FMU. A State Game Area map for the Deer River Flooding in Iron County is available to the public through the DNR website and indicates the application of State Game Area land use rules on State Forest Land adjacent to the flooding. However, the flooding is an impoundment from a dam administered by the Iron County Road Commission and is not included in the Wildlife Management Area Special Conservation Area layer in the GDSE and is not listed on State Wildlife Management Areas or on the In-scope/Out-of-scope Lands list memo developed in September 2009. In addition, the Lake 36 Flooding, Gene's Pond, Feltch Mountain Flooding, Hardwood Reservoir and Groveland Mine Flooding and adjacent lands (State Wildlife Management Area) are included in the Special Conservation Area layer in the GDSE as State Wildlife Management Areas though staff indicated that these sites are not managed as such. In addition, except for Gene's Pond, the floodings are not included on the In-scope/Out-of-scope Lands list memo developed in September 2009.
Corrective Action: Verify Federal wildlife nexus for Deer River Flooding, Lake 36 Flooding, Gene's Pond, Feltch Mountain Flooding, Hardwood Reservoir and Groveland Mine Flooding and update status with USFWS as appropriate. Review and update Special Conservation Area layer and In Scope/Out of Scope Lands as needed.

Minor Non-conformance 12-2017-02, Work Instruction 2.2 Use of Pesticides (Closed): Several otherwise complete Pesticide Application Plans lacked approval signatures.
Corrective Action: The Western Upper Peninsula Timber Management Specialist position has since been resolved and the new incumbent will ensure that the appropriate approvals will be provided electronically to the unit to be kept on file with the applications in the appropriate compartment files.

Multi-Unit Minor Non-conformance 12-2017-03, Work Instruction 2.3 Integrated Pest Management: No specific and coordinated guidance on how to detect and limit the spread of exotic invasive species. The Unit has proactively managed forest health issues (oak wilt, spruce budworm) in consultation with FRD forest health specialists and the audit team observed good examples of local exotic invasive species management, but a coordinated forest level effort on early detection and rapid response to exotic invasive species was lacking.
Corrective Action: Each year all 20 million acres of forest land in Michigan are surveyed from the air for new outbreaks of native and invasive forest pests and diseases. In addition, the state maintains a watch list of high threat aquatic and terrestrial invasive species that are not yet present in Michigan or not known to be widespread. The state is currently updating its Early Detection and Response Policy to include terrestrial invasive species. In addition, an early alert system is set up in MISIN, the state's invasive species database. It is available for any manager to add species for which they would like to receive alerts for a given region or county when reported to MISIN. Finally, all of the state forest system falls into the borders of a Cooperative Invasive Species Management Area (CISMA). Michigan provides core funding to all the CISMAs in the state as part of the Michigan Invasive Species Grant Program. As part of their funding, they: 1.) provide education and outreach about invasive species to limit their spread, 2.) survey their areas for invasive species, 3.) respond to reports of new invasive species in their areas, and 4.) Conduct invasive species control projects.

Minor Non-conformance 12-2017-04, Work Instruction 3.1 Forest Operations: In compartment 36 stands 39 and 79, the Michigan Forest Inventory (MiFI) database has not been updated for the next step treatment for Wildlife underplanting of white pine, as well as regeneration monitoring the aspen treatment and the white pine underplanting.
Corrective Action: Staff is aware that not all comments carried through from the transfer of the different inventory systems. Staff will be asked to look at the remaining Year of Entry Compartments that have not been inventoried under the MiFI system and make sure that comments and next steps are added.

Multi-Unit Minor Non-conformance 12-2017-05, Work Instruction 3.2 Best Management Practices: The Resource Damage Report database is not being maintained to the standard suggested in Work Instruction 3.2-4. Resource Damage Report entries have missing and/or incomplete information making conformance to Work Instruction 3.2-5 difficult and sub-standard. Examples of this are Resource Damage Report #'s 12032222016043, 12044222015002 and 12047222016011). Some that were identified as high or urgent priority also had little information and were not closed in the database (12154362006014, 12055222017038 and 12081222006011).
Corrective Action: Unit Manager will take a more active role in this process and work with unit fire supervisor on how to manage this database.

Minor Non-conformance 12-2017-06, Work Instruction 3.3 Best Management Practices – Road Closures: There is a gate limiting motorized vehicle use along a trail maintained for walk-in access for hunting and other recreation. The audit team did not find any documentation that the procedure outlined in Work Instruction 3.3.2 was followed, nor is there a Director's Order closing the trail to motorized vehicle use.
Corrective Action: Don Mankee to take the lead on discovering where the documentation is and moving it forward to approval.

Minor Non-conformance 12-2017-07, Work Instruction 7.1 Timber Sale Preparation: Timber sale administer did not record their name in the 'Attendees' section of the Field Inspection Report. Recorded Sustainable Forestry Education trained individuals were not up-to-date on their training qualification. Payment unit start/finish dates were not recorded in the 'Date Payment Unites Completed' section of the 'Field Inspection Report'.
Corrective Action: Staff has been instructed that all information listed above is to be filled out properly on the timber sale inspection form. Unit Manager will check staff inspection forms periodically to insure staff is filling out the form properly.

Minor Non-conformance 12-2017-08, Work Instruction 8.1 Staff Training: Forest Resources Division staff has not had an annual performance appraisal in over a year; therefore, training needs have not been adequately identified.
Corrective Action: Staff has performance plans for 2017. The Unit Manager will be sitting down with staff and going over their performance evaluation during November/ December 2017. During the evaluation, a training plan will be developed for each individual.

APPENDIX II

Open Minor Non-Conformances from Previous Audits

Baraga 2015 Internal Audit

Minor Non-conformance 11-2015-09, Work Instruction 6.2 Integrating Public Recreational Opportunities: The North Country Trail in Compartment 11 was noted on the east tour. When asked about documentation relating to the trail, staff stated that there was a handshake agreement. Further discussion with trails specialist found the trail did not have a use permit or trail proposal. When asked about volunteer agreements, the trail specialist knew of only one with a North Country Trail group. Although an internal agreement covering most of the trail is in the works, new portions, re-located portions of the trail and maintenance of the trail on state forest land are subject to a use permit and a current volunteer agreement. Volunteer agreements must be up-to-date for each work day on which work is conducted as part of the liability issue and the administration of volunteer hours for Parks and Recreation Division at a minimum. Documentation and local staff knowledge regarding the North Country Trail needs to be improved.
Corrective Action:

1. **Relocation of Trails or new trail development:** This issue is mentioned in the Memorandum of Understanding. Under Section A, bullet #4, it states that both parties shall "Promptly inform appropriate parties of any proposal which they may be undertaking or of which they may be aware that may impact the trail". The next Memorandum is being drafted now; the new Memorandum will have language inserted that mentions our trail proposal process and the steps to take when submitting a trail proposal.
2. **Volunteer use agreements being up to date and the issue of liability:** This issue is covered in the current Memorandum pretty well. It clearly states that the NCTA is responsible for executing Volunteers-in-Parks (VIP) agreements with volunteers working on the trail. It further states "the purpose of VIP agreements are to formalize the commitment of volunteers to the trail and provide them with the protection enjoyed by Federal employees in circumstances of tort claims and injury compensation". Efforts will be made by staff to create better communication between DNR and NCTA, and the NCTA will share their executed VIP agreements with the forest management unit supervisor and appropriate PRD trail coordinators.
3. **Documentation and local staff knowledge (communication) regarding NCTA work on state forest lands:** Development of a daily activity report form that can be used to track NCTA trail work and serve as a communication tool will be pursued. Currently some chapters report their trail work to the NCTA office, and some do not. What NCTA agreed to do is to start development of a form that chapters will use to report trail work/activity. A mechanism will be developed so that the activity form would be shared with FRD unit managers and PRD park supervisors. In this way, communication between the two organizations would improve.

Roscommon 2016 Internal Audit

Minor Non-conformance 71-2016-05, Work Instruction 3.1 Best Management Practices: On an audit field tour, an oil and gas production site operated by Tallman Industries Oil was observed to contain multiple oil spills, illegal storage of multiple substances associated with production, as well as trash and equipment. This site is located in an area managed for Kirtland Warbler habitat. Lease # 4389D covers this area, but was not found in the unit files. Oil and related chemicals have spilled and have potentially contaminated the water table and the soil. On this site, there has been a loss of forest and soil productivity. Despite being reported in June of 2013 to Jim Armbruster of DEQ, nothing has been done to address these conditions and prevent the spill from spreading and entering the water table. Hydrogen sulfide gas in the vicinity of this site likely caused an auditor to develop a headache after only 20 minutes on site suggesting that there is an air quality issue as well.
Corrective Action: Face-to-face meeting between DNR FRD and OMM personnel and DEQ Oil and Gas Management should be set up, and communication improved. Cleanup timelines to be set and the leaseholders notified of the need to comply.

2016 Theme Audit – Work Instruction 2.2 Use of Pesticides and Other Chemicals on State Forest Lands

TA-2016-01 Written against the Eastern Lower Peninsula: There were 10 instances of no variance for out-of-year-of-entry treatments, 1 instance of no pesticide application plan, 2 instances of no forest treatment completion report, 2 instances of no pesticide use evaluation report, 3 instances of no signatures associated on the forms, 2 instances where there was no review and approval by a second certified applicator, 7 instances of no district supervisor sign-off, 5 instances of incomplete forms and 1 instance of out-of-date forms.

TA-2016-02 Written against the Western Lower Peninsula: There were 3 instances of no forest treatment proposal, 6 instances of no pesticide application plan, 7 instances of no forest treatment completion report, 5 instances of no pesticide use evaluation report, 6 instances of no signatures associated on the forms, 8 instances where there was no review and approval by a second certified applicator, 22 instances of no district supervisor sign-off, 6 instances of incomplete forms and 2 instances of out-of-date forms.

TA-2016-04 Written against the Western Upper Peninsula: There were 3 instances where there was no forest treatment proposal, 1 instance of no variance for out-of-year-of-entry work, 7 instances of no pesticide application plan, 7 instances of no forest treatment completion report, 9 instances of no pesticide use evaluation report, 9 instances of no signatures associated on the forms, 9 instances where there was no review and approval by a second certified applicator, 17 instances of no district supervisor sign-off, 10 instances of incomplete forms and 4 instances where the dates on the forms were out-of-sequence.
Corrective Action: The Resource Assessment Section is working on the development of a spreadsheet that will be maintained in the CITRIX application that will track all aspects of the pesticide application process including the appropriate approvals required by the work instruction.