



# **Forest Certification Work Instructions**

**(Complete Set)**

**June 1, 2016**

**Approved by:  
DNR Resource Bureau Management Team  
June 1, 2016**

# DNR FOREST CERTIFICATION WORK INSTRUCTIONS

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**Work Area Group:** 1 – Plan, Monitor, and Review

**Work Instruction Title:** 1.1 Strategic Framework for Sustainable Management of State Forest Land

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**Purpose:** To provide guidance for sustainable management on State Forest lands. Identify Work Instructions necessary to meet forest certification standards. Identify actions necessary for the implementation of Work Instructions within the Department of Natural Resources (DNR).

**Work Instruction:**

1. The DNR will maintain a State Forest Management Plan (SFMP). The plan and related documents will provide forest management guiding principles, strategies, and goals. The document will also describe forest planning processes at three levels (state/department, ecoregion/district, and local/forest management unit (FMU)), and a multi-level management review system. The document will meet statutory and forest certification requirements and provide general direction for Regional State Forest Management Plans (RSFMPs).

The SFMP will be revised through an interdivisional effort of Wildlife, Fisheries, Parks and Recreation, and Forest Resources Division (FRD) personnel. It will be submitted to and approved by the DNR Director following a public input process. Responsibility for compliance and monitoring of the SFMP implementation will be the responsibility of the FRD Forest Planning and Operations Section (FPO). The plan will be monitored through multiple methods, including internal audits, annual surveillance audits and the annual DNR Management Review.

2. Use of Forest Certification Work Instructions
  - a. The DNR has adopted the use of Forest Certification Work Instructions to guide the planning, operations, and review of management on State forest lands. State forest lands that are in the scope of forest certification are those that meet all of the following criteria: identified in state forest compartments; inventoried in Michigan Forest Inventory (MiFI); and evaluated for treatment prescriptions through the compartment review process. The DNR Staff are instructed to follow these Work Instructions in the daily work. Following these instructions will allow the DNR to meet the requirements of sustainable forest management as defined in the SFI and FSC certification standards. Any revisions to the Work Instructions are to be approved by the Resource Bureau Management Team (RBMT) following review by Division Management Teams.

- b. List of Work Instructions

Work Area Group (WAG) 1 - Plan, Monitor, and Review

- 1.1 Strategic Framework for Sustainable Management of State Forest Land
- 1.2 Management Review Process for Continual Improvement in the Management of Forest Resources
- 1.3 Regional State Forest Management Plan Implementation and Revision
- 1.4 Biodiversity Management on State Forest Lands
- 1.5 Social Impact Considerations and Public Involvement Processes
- 1.6 Forest Management Unit Analyses

Work Area Group 2 - Forest Regeneration and Chemical Use

- 2.1 Reforestation
- 2.2 Use of Pesticides and other Chemicals on State Forest Lands

- 2.3 Integrated Pest Management and Forest Health

Work Area Group 3 – Best Management Practices (BMPs)

- 3.1 Forest Operations
- 3.2 Best Management Practices Non-conformance Reporting Instructions
- 3.3 Best Management Practices - Road Closures

Work Area Group 4 - This WAG was deleted - all related indicators were combined with WAG 7

Work Area Group 5 - Research

- 5.1 Coordinated Natural Resource Management Research

Work Area Group 6 - Education and Recreation

- 6.1 Implementing Public Information and Educational Opportunities on State Forests
- 6.2 Integrating Public Recreational Opportunities with Management on State Forest Lands
- 6.3 SFI Involvement and the Michigan State Implementation Committee

Work Area Group 7 - Integrated Implementation and Contracting

- 7.1 Timber Sale Preparation and Administration Procedures
- 7.2 Legal Compliance and Administration of Contracts

Work Area Group 8 - Training

- 8.1 DNR Staff Training for State Forest Management

Work Area Group 9 - Tribal Issues

- 9.1 Collaboration with Tribes in regard to management of State forest land

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Parks

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

<b>Job Title/Division</b>	<b>Role</b>
FRD FPO Section	Maintain the SFMP, communicate to DNR following DNR Director approval of revised plan.
RBMT, Director, Division Chiefs	Complete actions necessary for the implementation of Work Instructions within the DNR.
Field Coordinators, Basin, Peninsular, District and Unit Managers/ FRD, FD, & WD	Ensure work instructions are fully implemented
District Planning and Inventory Specialists/ FRD; District Ecologists, WD	Provide oversight in implementing standards, monitoring and evaluating performance.
All DNR Land Management Staff	To be knowledgeable of the SFMP and guidance contained therein and to ensure guidance is reflected in operations.

**Training/Skills:** (Those required to accomplish work instruction)

<b>Item:</b>	<b>Brief Description of Skill or Course</b>	<b>Exists/ New</b>
Planning, Monitoring, and Reviewing Processes	Inform employees of principles; review planning processes, monitoring templates and review processes.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Knowledge of Work Instructions	Supervisors will ensure staff receive appropriate work instruction training.	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- 2008 Michigan State Forest Management Plan
  - Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451
  - Regional state forest management plans
  - FSC & SFI Forest Certification Standards
  - The current suite of work instructions
- 

**Monitoring:**

- The Forest Certification internal audits and external audits will determine DNR's conformance with sustainable forest management direction. This work instruction will be monitored and adapted based upon the results of these audits.
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**Records:**

- Audit reports

**Michigan Department of Natural Resources  
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**Work Instruction Title:** 1.2 Management Review Process for Continual Improvement in the Management of Forest Resources

**Work Area Group:** 1 – Plan, Monitor and Review

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**Purpose:** A systematic process for gathering information regarding improvement in forest management practices, reporting that information to management, and formal management review.

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## **Work Instruction:**

1. Internal audit teams will be formed and will conduct regular audits on DNR Forest Management Units (FMUs). The audits will include field implementation of State and District level programs.
  - a. Three to four FMUs per year will normally be audited. One desk audit on a theme to be chosen by the Forest Certification Team (FCT) shall be conducted for all FMUs each year. The number of audits may vary depending on budgetary and staffing constraints.
  - b. Supplemental internal audits can be requested through the chain-of-command.
  - c. The Management Review Team will designate which FMUs and may identify particular areas of needed focus for state forest related programs to be internally audited each year.
  - d. Internal audits will be conducted by a DNR lead auditor and an audit team. One person shall be the lead auditor for all internal audits during any year. Auditors may be trained through either formal training or as under-instruction audit observers.
  
2. Annual Management Review.

The Management Review Team will annually evaluate audit results for state forest operations, evaluate effectiveness of work instructions, evaluate non-conformances, determine changes and improvements necessary to continually improve conformance, and provide input for a Management Review Report. The review will be based on the following:

  - a. Internal Audits: Internal audits must record, evaluate, and report non-conformances with forest certification standards and related work instructions at all levels of the DNR.
    - 1) The Forest Certification Coordinator (FRD) will oversee the internal audit process.
    - 2) Monitoring requirements cited in the forest certification standards and work instructions will be incorporated into the internal audit process.
    - 3) DNR District Supervisors will monitor implementation of internal audit corrective action plans, and report pending or continuing non-conformance at the annual management review.
  - b. Annual Forest Certification Surveillance Audits by external SFI and FSC auditors
  - c. Field Management Review
    - 1) Schedule the management review to follow annual forest certification audits.
    - 2) The management review will consist of a statewide review of audit results. Audits will evaluate field operations and DNR programs.
    - 3) Conduct an annual management review meeting with the Management Review Team. The meeting will be hosted and chaired by the Forest Certification Coordinator.
    - 4) The Forest Certification Coordinator will prepare a draft report addressing conformance with the forest certification standards and recommendations for improvement. The draft report will be submitted to Management Review Team and DNR division chiefs for review by division management teams. The Forest Certification Coordinator will incorporate division management team review comments and submit a final Management Review Report to the Resource Bureau Management Team (RBMT) for their review and approval.

- 5) The Management Review Report will include a report of management actions immediately taken to address audit results, will cite non-conformance issues, and report other significant findings.

3. Implementing Improvements:

- a. Whenever possible, immediate changes will be made to remedy identified non-conformances.
- b. The Forest Certification Team (FCT) will be responsible for:
  - 1) Reviewing and providing recommendations for revisions to Forest Certification Work Instructions to the Management Review Team;
  - 2) Developing recommendations for addressing internal and external audit findings to the Management Review Team; and
  - 3) Supporting the Management Review Team by identifying other opportunities and actions to improve sustainable management of forest resources and conformity with certification standards.
  - 4) Providing input to the themes or issues for focus of the internal audits.
- c. An Executive Committee of the FCT is responsible for making higher level decisions for issues such as the review and implementation of FSC and SFI Forest Management Standards, which do not require the attention of the entire FCT.
- d. The RBMT will identify changes and improvements necessary at all DNR levels to continually improve conformance with work instructions via a written annual communication to all employees.
- e. Division Chiefs will ensure changes and improvements approved by the RBMT are implemented.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Resource Bureau Management Team	Approve the annual Management Review Report
Management Review Team	Conduct an annual management review; identify changes and improvements necessary to improve forest management. Designate which FMUs or state forest related programs will be audited each year.
Internal Auditors	Conduct annual internal audits and recommend improvements to internal audit process.
Field/Basin Coordinators / FRD, WD, PRD, FD	Implement changes and improvements into field operations.
Division Chief / FRD, WD, PRD, FD	Review draft compliance reports, provide recommendations for incorporation into final report. Implement improvements recommended at state and regional levels via written communications with employees.
Forest Certification Team	Coordinate ongoing management review implementation. Recommend actions necessary to improve sustainable forest management.
Forest Certification Coordinator / FRD	Oversee and support internal audit process and auditor training. Conduct annual management review. Prepare draft and final management review reports.
District Supervisors/ FRD, WD, PRD, FD, LED	Monitor implementation of internal and external audit corrective action plans, and report pending or continuing non-conformance at the annual management review

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
Internal Auditor Training	Train select DNR staff in forest certification audit procedures to meet forest certification standards	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- FSC-US Forest Management Standard (v1.0), July 8, 2010
- Requirements for the SFI 2010-2014 Program, January 2010

**Monitoring:**

- Annual Management Review Report
- Annual Surveillance Audit Reports

**Records:**

- Internal Audit Reports
- Annual Management Review Report
- Annual Surveillance Audit Reports

**Michigan Department of Natural Resources  
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**Work Instruction Title:** 1.3 Regional State Forest Management Plan Implementation and Revision

**Work Area Group:** 1 – Plan, Monitor, and Review

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**Purpose:** Define roles and responsibilities for the implementation and revision of Regional State Forest Management Plans.

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## **Work Instruction:**

### **1. Background**

The primary purpose of Regional State Forest Management Plans (RSFMPs) is to provide operational direction for management of state forest resources based on landscape-level forest assessments, by building on the direction provided in the state-level plan (2008 Michigan State Forest Management Plan) and providing goals and objectives for forest cover type and wildlife habitat management for the 2016-2026 Year-of-Entry planning period. Although RSFMPs do not specifically address planning objectives for other values of the state forest (e.g., camping and trail use), they consider these values and attempt to minimize any impacts from forest management activities. The plans are also intended to address the planning requirements of Part 525 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and the Forest Stewardship Council and Sustainable Forestry Initiative forest certification standards. There are three RSFMPs, one each for the northern Lower Peninsula, eastern Upper Peninsula, and western Upper Peninsula regions.

Management Areas (MAs) are the landscape unit used in the RSFMPs. The MAs are groupings of State Forest compartments that have similar attributes, such as vegetation types, landform, or proximity to key user groups. The MAs are used as a framework for describing the current conditions and management direction for vegetative management in the RSFMPs. The section on special resource areas (SCAs, HCVAs, and ERAs) in the Michigan State Forest Management Plan (April 10, 2008) addresses management direction for other uses and values (recreation, etc.) of the State Forest. In each RSFMP, these values are described for each MA.

The purpose of using the MA framework in RSFMPs is to enable landscape-level analyses and specific direction that, when combined with other existing standards and guidelines will help to guide tactical decisions. These decisions will be coordinated at the Forest Management Unit (FMU) and implemented through the compartment review process.

### **2. Plan Implementation**

Using MAs as a framework, RSFMPs contain specific, quantitative landscape-level direction that informs tactical decision-making during compartment review at the FMU level of operations. This management direction is embodied in Section 4 of the plans by MA. Analyses required by Forest Certification Work Instruction 1.6 will be conducted so as to achieve progression toward achievement of management objectives for each forest type in each MA.

### 3. Plan Monitoring and Reporting

Monitoring of RSFMP implementation is an integral component of a responsible management program based on the principles of ecosystem management. Monitoring, assessment and reporting requirements include the following:

- a. The DNR budget process
- b. Special purpose funding (e.g. federal grants)
- c. The compartment review process
- d. Timber sale preparation and inspection process
- e. Forest regeneration survey protocols
- f. The resource damage reporting system
- g. The forest health monitoring program
- h. Wildfire detection
- i. Sustainable Forestry Initiative certification standard
- j. Forest Stewardship Council certification standard
- k. Public reporting – as required by the certification standards.

Monitoring works to its greatest advantage in three basic ways:

- a. Monitoring provides an accurate assessment of the status of the resource being managed;
- b. It validates if management decisions are correctly interpreted and implemented such that decisions achieve desired results; and
- c. It provides insight into how systems operate.

Based on this description, the state forest monitoring program includes five basic components:

- a. Baseline Monitoring - Inventory
- b. Baseline Monitoring - Surveillance
- c. Implementation Monitoring
- d. Effectiveness Monitoring
- e. Validation Monitoring

The DNR has an established and systematic process for gathering information regarding the state forest and forest management practices for each of the above components, which is identified in Section 5 RSFMPs, and shall be reviewed and updated with each plan revision. Assessment of the data and reporting on the findings is a key component of improving management of the state forest. The basic reports that will be produced on a regular basis are listed below.

- a. Internal Audit Reports – prepared by the Forest Certification Specialist.
- b. Annual Forest Certification Reports – prepared by the FSC and FSI auditors (one for each system).
- c. Annual Management Review – an annual report on compliance with forest certification standards.
- d. Forest Resource Division and Wildlife Division Accomplishments Reports – annual reports on the cooperative management of Michigan’s State Forest.
- e. Timber Sale Report – quarterly and annual reports required by annual appropriation legislation.
- f. Forest Inventory and Assessment Report for Michigan – analysis and report on the permanent sample plot network for forest inventory (U.S. Forest Service) produced every five years (subject to change based upon federal budget limitations).
- g. Public Summary of Monitoring Results – A web-based summary of the most recent monitoring information related to FSC criterion 8.2.
- h. State of the State Forest Report – produced every 10 years in preparation for revision of RSFMPs to provide a summary of annual monitoring data for all three ecoregions, and to evaluate progress towards or maintenance of sustainable forest conditions.

#### 4. Plan Review and Revision

Consistent with the Forest Stewardship Council certification standard, RSFMPs will be reviewed every 10 years and revised as necessary to incorporate the results of monitoring or changing ecological, social or economic circumstances.

There are known deficiencies in the RSFMPs where data or other information for some uses and values which should or are desired to be included in the plans, but for various reasons (such as incomplete data sets or lack of other information or incompatible timelines for data acquisition) are excluded from the plan content until such time that they are available for inclusion. These gaps, as identified in section 5 of each RSFMP, will need to be addressed in the future revisions to the plans.

Review and revision of plan management direction should be founded on Section 3 of the plans and other analyses of landscape-level conditions and trends, as provided by:

- a. Approved statewide, regional or local plans identified in the document “A Comprehensive Summary of the Department of Natural Resources Planning Process for Natural Resource Management in Michigan”, specifically including:
  - 1) The Michigan State Forest Management Plan (2008),
  - 2) Michigan’s Wildlife Action Plan,
  - 3) The Kirtland’s Warbler Management Plan,
  - 4) DNR River Assessments,
  - 5) Pigeon River Country Concept of Management.
- b. Analyses of the forest cover types in each Management Area, specifically including:
  - 1) Age-class distributions,
  - 2) Cover type structural and compositional trends,
  - 3) Basal area, size classes and stocking,
  - 4) Primary understory vegetation types.
- c. Analysis of successional trends and site suitability analysis using the Kotar Guide to Forest Communities and Habitat Types for each Management Area.
- d. Forest health conditions and trends analysis.
- e. Recreational use assessments.
- f. Economic demand assessments.

Revisions to management direction in Section 4 of RSFMPs should provide specific language to achieve landscape-level goals (as expressed by the plans listed in subsection 4a above) through compartment-level prescriptions, including the following examples:

- a. Current forest cover type acres within each MA,
- b. Special Resource Area acreages within each MA,
- c. Projected sums of cover type acreages within each MA at the end of the 10-year planning period,
- d. Treatments to achieve the projected sums of cover type acreages within each MA at the end of the 10-year planning period,
- e. Detailed descriptions of cover type maintenance, expansion, conversion or natural succession, and management for achieving featured species habitat objectives.

Acreages must be estimated where possible, recognizing that treatments often serve multiple objectives (e.g. age class balancing and provision of wildlife habitat such as in the case of aspen management) and some general objectives may not be easily quantified at the acreage level (e.g. within-stand retention of biodiversity and landscape level diversity).

Management direction will be consistent with divisional program goals and objectives for resource uses. Where there are conflicts regarding disparate regional goals and objectives, attempts at resolution should first occur at the District Supervisor level. Where resolution at the District level is not successful, conflict resolution shall be elevated to the level of divisional field coordinators. The Resource Bureau Management Team has the final decision-making authority for program-level conflicts that cannot be resolved by field staff.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: Michigan lands other than State-owned

DNR – FRD       DNR – Wildlife       DNR – Fish       DNR – Law       DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
All DNR personnel within an Ecoregion	All staff will participate in implementing the plan through on-the-ground operations. Select staff will participate in revision of the plans. All staff will have opportunity for input and need an awareness of regional planning processes.
FRD Inventory and Planning Specialists & Wildlife Ecologists	Document and summarize the revisions to regional planning processes and assist with the review of the regional plans through the Ecoregional Planning Teams.
Other specialists	Assist with the development of particular plan sections pertaining to specialty.
Ecoregional Planning Team: Wildlife Mgt Unit Ecologist/Planner (WE) FRD Inv. & Planning Specialist (IPS) Lansing FRD Cert. planner (FCP) FD representative	Revise Regional State Forest Management Plans: WE and IPS – Draw on field-based Division resources to revise local sections of plan and integrate with statewide components. FCP – Draw on Lansing and other Division resources to revise statewide components of plans and integrate with regional sections. Assures compliance with legislation and compatibility with certification requirements.
DNR Director	Approves regional plans.

**Training/Skills:** (Those required to accomplish work instruction)

Item:	Brief Description of Skill or Course	Exists/New
Familiarity with OI, FIA, & T-Sale Data	Good computer skills with databases	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
GIS/Analysis Skills	ArcView/ArcInfo	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Models/Modeling	Skills or knowledge of resource models and modeling	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Facilitation Training	Facilitate meetings with stakeholders-internal and external	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Plan process	Review planning process with Department staff	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- 2008 Michigan State Forest Management Plan
- Part 525, Statewide Forest Resources Plan, NREPA.
- A Comprehensive Summary of the DNR Planning Process for Natural Resources Management in Michigan
- Regional state forest management plans
- Current suite of work instructions.

**Monitoring:**

- Reporting, monitoring, analyzing, and adapting management would take place at all 3 levels-FMU (management areas), Ecoregion and Statewide. Monitoring of the regional plans will be the primary responsibility of the Forest Resources Division (FRD). Specifics of this will be outlined in Section 6 of the plans.
  - Subsequent review and revision of the process will be the responsibility of the FRD Forest Planning and Operations Section.
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**Records:**

- Public comments
  - Public meeting notes and comments
  - Documentation of plan approvals
  - Maps and background documents
  - Analysis results
  - Draft and final plan documents
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# MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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**Work Instruction Title:** 1.4 Biodiversity Management on State Forest Lands

**Work Area Group:** 1 - Planning, Monitoring, Review

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**Purpose:** To provide direction for addressing biological diversity conservation objectives.

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### Work Instruction:

The intent of this work instruction is to provide direction for cataloging areas within the state forest that have been identified for a variety of biodiversity values. It is also intended to provide management options that are compatible with conservation objectives.

#### 1. Definitions

**Biological Diversity:** *means the full range of variety and variability within and among living organisms and the natural associations in which they occur. Biological diversity includes ecosystem diversity, species diversity, and genetic diversity (Part 355, NREPA).*

**Special Conservation Areas (SCAs).** The SCAs are areas of state forest which have had one or more conservation objectives, interests, or elements identified. Conservation objectives listed in the SCA category have been identified through a variety of methods and mechanisms, and it is important to understand how the objective was determined. The type and strength of recognition—and possible management options—will vary depending on the process used to identify the conservation value. For example, some objectives are detailed in the Land Use Orders of the Director (force of law) while others may be identified through cooperative agreements (administrative direction). There are also conservation objectives that are specified through DNR guidelines for areas such as deer yards and riparian buffers. The SCA category may also be used to document areas identified by an external group or organization, such as National Audubon Society's Important Bird Areas Program. The SCA definition is purposefully broad to encompass a spectrum of conservation interests and elements. It is a descriptor that provides the land manager and/or stand examiner with natural resource information to make informed management decisions. Some SCA categories are reviewed and updated through the compartment review process, while others are generally static. Those SCA categories related to biodiversity conservation include Non-Dedicated Natural Areas and National Natural Landmarks, Type 1 and Type 2 Old Growth, Habitat Areas and Corridors, and Great Lakes Islands.

**High Conservation Value Areas (HCVAs)**<sup>1</sup>. The HCVAs are areas of state forest<sup>1</sup> which have been recognized for their contribution to specific conservation values, objectives and ecological attributes or significant social values, and have a significant public consultation and/or public review as part of their identification process<sup>2</sup>. Examples are areas designated through legislation, administrative rule, Director's

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<sup>1</sup> HCVAs address Principle 6 and Principle 9 of the Forest Stewardship Council and Objective 4 of the Sustainable Forestry Initiative certification standards.

<sup>2</sup> Although an important public process, the Compartment Review Process is not a final approval forum for designating HCVAs. It is a key process for identifying potential conservation areas.

and Natural Resource Commission Orders, and project-specific public reviews. The HCVA's are Ecological Reference Areas, Legally Dedicated Natural, Wilderness or Wild Areas, Natural and Wild and Scenic Rivers, Critical Dune areas, Dedicated Habitat Areas (e.g. Kirtland's Warbler Management Areas, and interior core forest habitats), Dedicated Management Areas (landscape-level forests like the Sand Lakes Quiet Area), and Coastal Environmental Areas. Type 1 and Type 2 Old Growth areas will become a HCVA category upon completion of the public review and approval process for future revisions to RSFMPs.

**Dedicated Habitat Areas (DHA).** The DHAs are a category of High Conservation Value Area. They identify geographic areas on the landscape where there is an emphasis on species-specific habitat, with a long-term goal of ensuring that these species are conserved as examples of our State's biodiversity. These include:

- a. Habitat areas for threatened or endangered species, such as the Kirtland's warbler and piping plover, in association with species management plans that have been developed in cooperation with the U.S. Fish and Wildlife Service and other federal land managing entities such as the U.S. Forest Service; and
- b. Habitat areas for species requiring interior core forest habitat, including American marten, cerulean warblers, red-shouldered hawks, and northern goshawks.

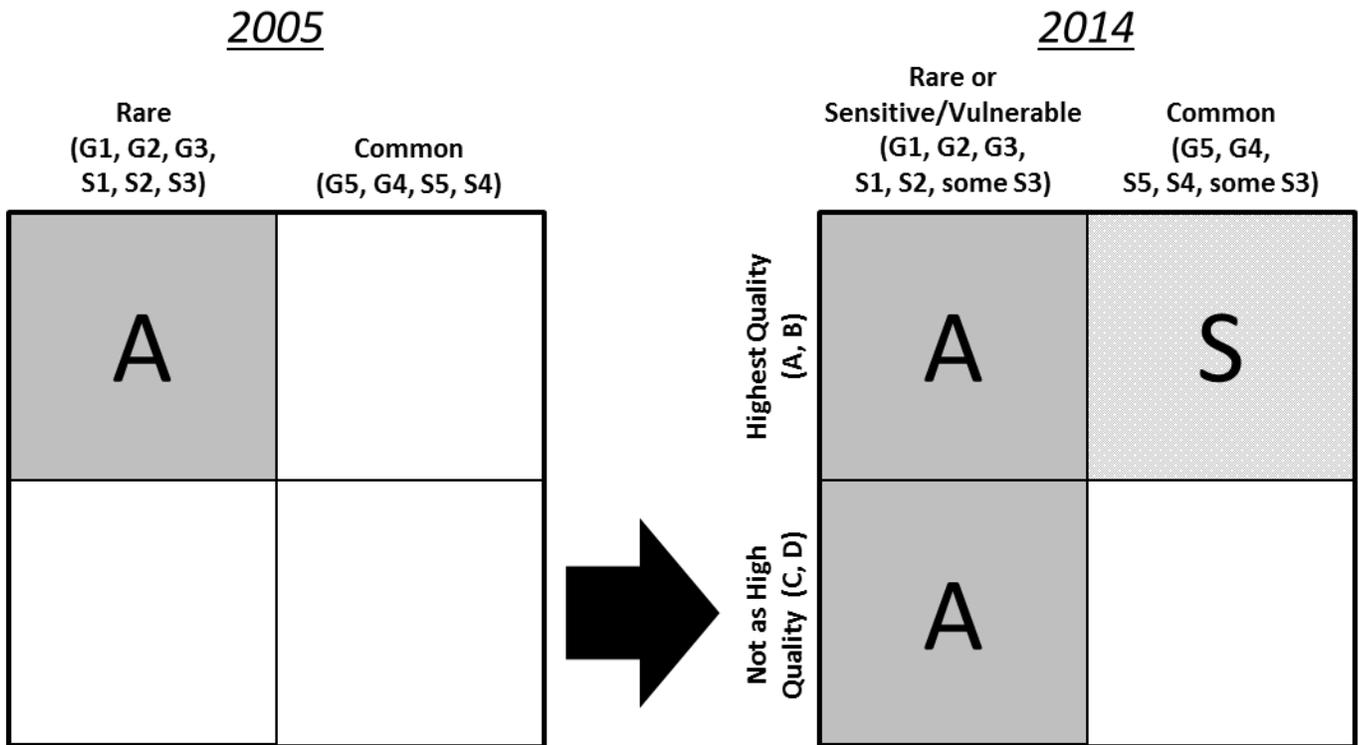
**Ecological Reference Area (ERA).** The ERAs are a category of High Conservation Value Area (as defined by the Forest Stewardship Council certification standard) and are Forests with Exceptional Conservation Value (as defined by the Sustainable Forestry Initiative certification standard). An ERA identifies a geographic area on the landscape where there is an emphasis on biodiversity conservation achieved through maintaining and/or restoring high quality native natural communities, with a long-term goal of ensuring that these natural communities are conserved as examples of our State's biodiversity. They serve as models of ecological reference within the state. They are higher quality examples of functioning ecosystems that are primarily influenced by natural ecological processes. The ERAs are based on the Michigan Natural Heritage database of known natural community sites (Element Occurrences<sup>3</sup>). Operationally, ERAs are comprised of two categories (Figure 1):

- a. Common Communities. A representative selection of natural communities with a Global (G) or State (S) Rank of S3 (vulnerable) if less sensitive to typical forest management practices, G4 and S4 (apparently secure and uncommon), and G5 and S5 (secure and common) and usually an Element Occurrence (EO) Rank of A or B (The site is an 'excellent or good' example of the natural community), and;
- b. Rare Communities. All natural communities with a Global (G) or State (S) Rank of G1 and S1 (critically imperiled), G2 and S2 (imperiled), and G3 (vulnerable), and S3 (vulnerable) if more sensitive to typical forest management practices, with an Element Occurrence (EO) Rank of A, B, C, or D.

The ERAs are primarily located on DNR-administered State Forests, State Parks, or State Wildlife Areas. Not all high quality natural communities occur on DNR lands, and ERAs also recognize other owners (National Forests, National Parks, National Wildlife Refuges, conservancy lands, and local government conservation lands) that have protective designations on exemplary natural communities.

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<sup>3</sup> Natural Community Rank and Element Occurrence in Michigan are determined by Michigan Natural Features Inventory using internationally recognized natural heritage methodology developed and used by NatureServe.



A = All natural community element occurrences  
 S = Selected examples of documented natural community occurrences

Figure 1. Ecological Reference Areas on in-scope certified State Forest lands.

**Potential Old Growth (POG).** The POG areas were identified in the state forest after the 1994 NRC approval of the 'Old Growth on State Forest Lands' addendum to the 1983 Statewide Forest Resources Plan. Formal designation of POG areas was never achieved across the entire state forest, as was intended to occur under the 1979 NRC Policy 2207 key value management planning process for individual state forests (e.g. Pere Marquette State Forest). Areas that were identified as POG were coded as 'Stand Condition 8' under the old Operations Inventory (OI) system, and if retained for the next compartment review cycle, are coded as a category of Special Conservation Area in the Michigan forest inventory system (MiFI).

**Type 1 and Type 2 Old Growth.** Old-Growth forest (also termed primary forest, ancient forest, virgin forest, or primeval forest) is an area of forest that has few or no signs of human disturbance and that exhibits unique ecological features related to age, composition and associated structure. Old growth forests are of natural origin. They may be dominated by late successional forest species (i.e. sugar maple and American beech), or may be a very old example of a stand dominated by long-lived early- or mid-seral species (i.e. oak, or red pine).

Actively or passively managed second growth forest stands (of natural or planted origin) which were effectively clearcut in the late 1800s and early 1900s, but have subsequently developed late-successional or old growth structure, composition, and function are not considered to be Type 1 or Type 2 Old Growth.

Old-growth stands and forests include:

- **Type 1 Old Growth:** A forested area 3 acres or more in size that has never been logged and that display old-growth characteristics (Table 1).
- **Type 2 Old Growth:** A forested area 20 acres or more acres in size that has been logged (minor cutting), but which does not result in the elimination of any major canopy species and that retains (never lost) significant original elements of old-growth structure and functions (Table 1).

**Legacy Tree.** An individual tree of a long-lived species, usually mature or remnant of old growth, which provides a biological legacy. It is an individual old tree (or occasionally a small group of old trees) that function(s) as a refuge or provides other important structural habitat values. By definition, relatively short-lived species (including big-tooth and trembling aspen, balsam fir, balsam poplar, and paper birch) cannot be legacy trees.

Legacy trees must be 150+ years old or diameter at breast height is 26+ inches, and in either case will exhibit some of the following characteristics:

- Presence of hollows and cavities
- Super-canopy crown position
- Broken tops with crown debris accumulations and/or partial snag formation
- Plate-like or thick fire-resistant bark
- Fire scars and basal burn cavities

## 2. Direction for Reviewing SCAs and HCVAs During Compartment Review

The database of SCAs and HCVAs is located within the Geographic Decision Support Environment (GDSE), and maintained by the FRD GIS Certification Specialist. Some SCA boundaries are static data layers (e.g. Concentrated Recreation Areas) and are non-editable by DNR field staff through the compartment review process, or they may be non-static data layers (e.g. Possible Type 1 and 2 Old Growth areas) that may be edited by field staff during the compartment review process. All HCVAs are static data layers.

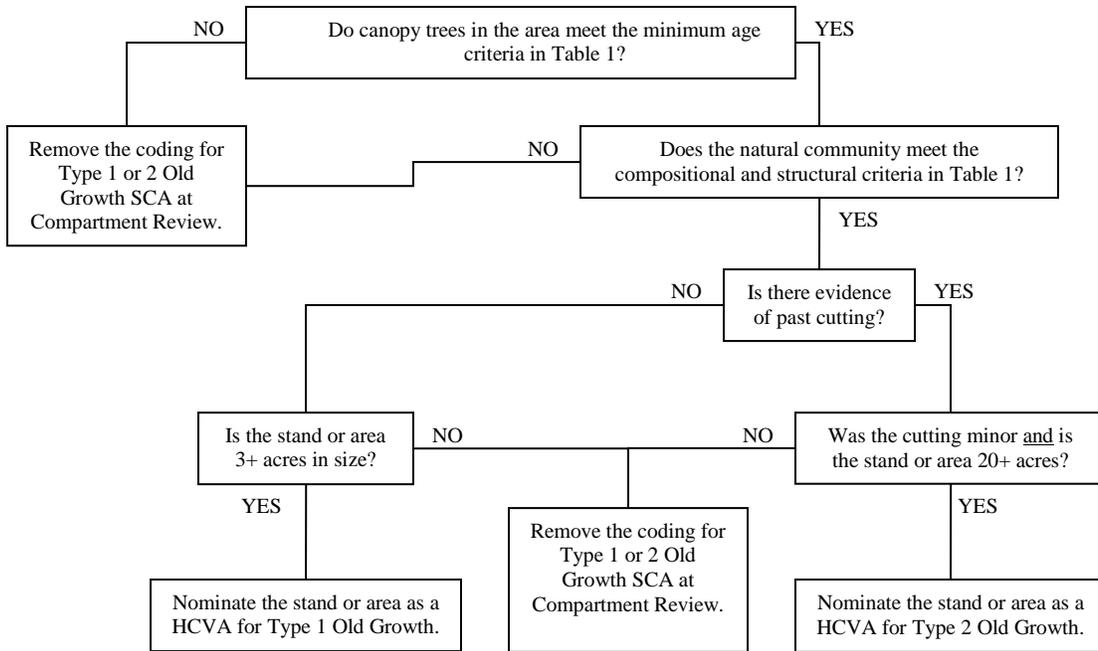
Through the course of conducting forest inventory stand examiners should, prior to the initiation of field inventory, evaluate the database of SCAs and HCVAs for completeness and accuracy. Any changes in the designation of or edits to non-static SCAs shall be documented in the MiFI using the coding instructions provided in Appendix H of the MiFI manual. Edits to static SCA and HCVA data layers may only be accomplished through direct consultation between field staff, the FRD GIS Certification Specialist, and other staff specialists with interest in the data layer.

- a. Ecological Reference Areas:** Recommendations for changes to the ERA layer in the GDSE may come from DNR field staff or DNR Lansing staff, and they may come through the compartment review process, as a result of observations during implementation of management activities, through opportunistic observations, or as a result of formal survey. Regardless of from whom or how the recommendations are provided, the following guidance is provided:
- 1) On the basis of updated Michigan Natural Heritage data, ERAs on state forest lands may be recommended for deletion (if the Element Occurrence no longer exists) or modification (if the Element Occurrence boundary has changed). All recommendations for deletions or modifications of this nature and resulting edits to the ERA layer in the GDSE shall be coordinated through the FRD Biodiversity Conservation Program Leader and FRD GIS Certification Specialist.
  - 2) On the basis of DNR field review of boundaries and/or site conditions, ERAs on state forest lands may be recommended for deletion (if site conditions are no longer consistent with ERA designation), modification (if site conditions do not match the existing ERA boundary), or addition (if site conditions suggest an undocumented high quality natural community). All field recommendations for deletions, modifications or additions of this nature will require further review, potentially including a formal survey, and shall be coordinated through the FRD Biodiversity Conservation Program Leader, working with a consultant, such as Michigan Natural Features Inventory.
    - i. Any need for deletion or modification edits to the ERA layer in the GDSE that are confirmed following review shall be subsequently coordinated through the FRD Biodiversity Conservation Program Leader and FRD GIS Certification Specialist.
    - ii. Any need for addition edits to the ERA layer in the GDSE that are confirmed following review shall be held until the next formal review and approval process for an updated network of ERAs (see '3.' below). However, if the addition is for a rare natural community, the FRD Biodiversity Conservation Program Leader in coordination with

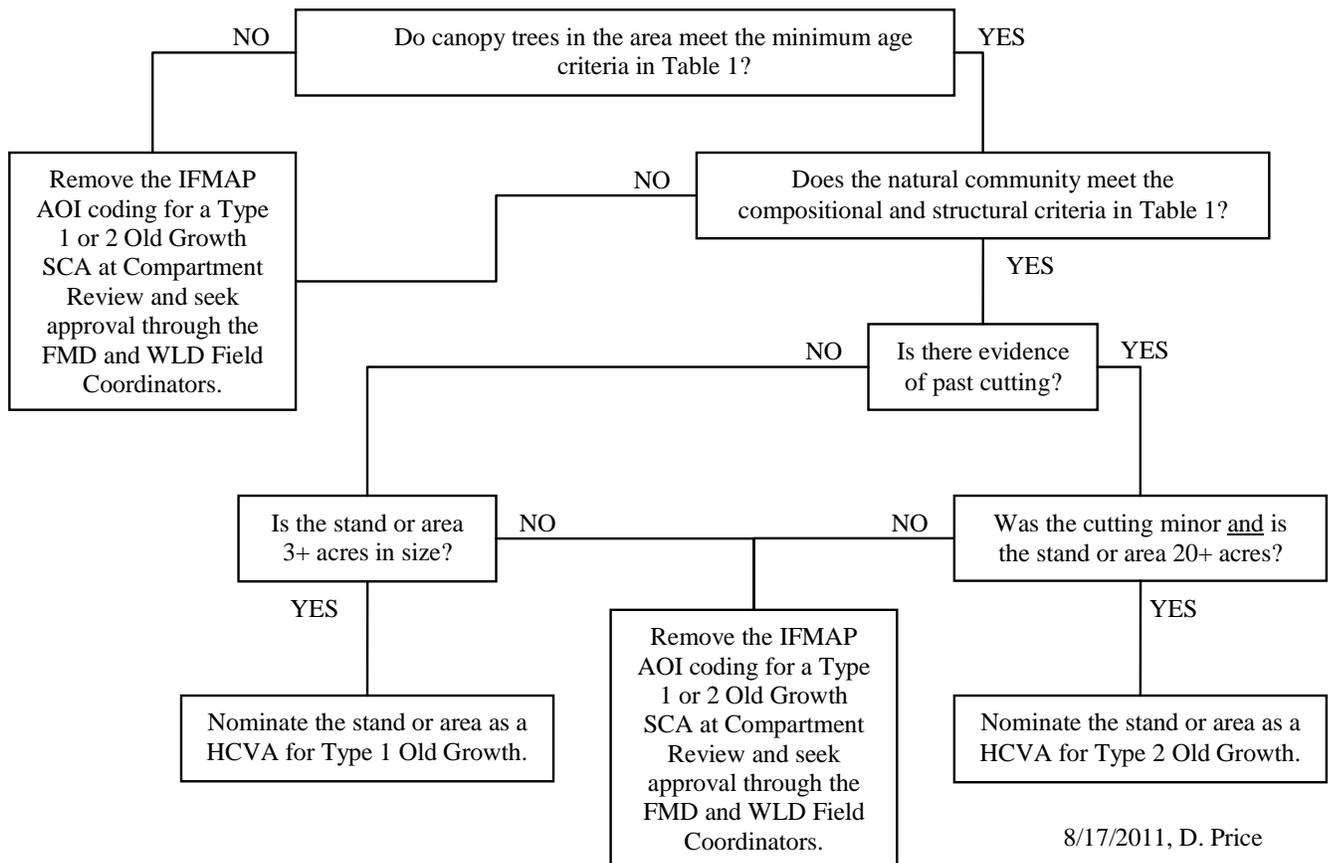
the FRD GIS Certification Specialist shall place a polygon into the 'Habitat Areas and Corridors - Other Habitat Area' SCA layer in the GDSE and add a '3B' site condition to the same spatial extent in MiFI to ensure the rare natural community is conserved.

- 3) As part of each 5-year review and approval process for an updated network of ERAs, a summary of all deletions and modifications to the ERA network shall be provided as part of the publicly available review materials. Additionally, a summary of pending additions of ERAs for rare natural communities on state forest lands (see '2.ii.' above) shall be provided. Potential new ERAs for common natural communities will be incorporated into the overall re-assessment of the ERA network during the 5-year review.
- b. Dedicated Habitat Areas:** Recommendations for changes to the DHA layer in the GDSE may come from DNR field staff or DNR Lansing staff, and they may come through the compartment review process, as a result of observations during implementation of management activities, through opportunistic observations, or as a result of formal survey. Regardless of from whom or how the recommendations are provided, the following guidance is provided:
- 1) On the basis of DNR field review of boundaries and/or site conditions, DHAs on state forest lands may be recommended for full or partial deletion (if site conditions are no longer consistent with DHA designation), modification (if stand boundaries do not match the existing DHA boundary) or addition (if staff identify additional areas of interior core forest habitat). All field recommendations for deletions, modifications or additions of this nature will require further review, potentially including a formal survey, and shall be coordinated through the FRD Biodiversity Conservation Program Leader.
    - i. Any minor boundary modification edits to match stand and DHA boundaries in the GDSE DHA layer that are confirmed following review shall be subsequently coordinated through the FRD Biodiversity Conservation Program Leader and FRD GIS Certification Specialist.
    - ii. Any additions, deletions and significant boundary modifications to the DHA layer in the GDSE that are confirmed following review shall be held until the next formal review and approval process for an updated network of DHAs (see '2.' below).
  - 2) As part of each 5-year review and approval process for an updated network of ERAs a summary of all additions, deletions and significant boundary modifications to the DHA network shall be provided as part of the publicly available review materials.
- c. Potential Old Growth:** Potential Old Growth stands must be evaluated for re-designation to another type of SCA (such as a specific Habitat Area) or removed through the compartment review process. Those areas that meet criteria for classification to another SCA category shall have the site condition coding and comments changed accordingly. Those areas that do not meet criteria for classification to another SCA category shall have the site condition coding and comments as potential old growth removed.
- d. Type 1 and 2 Old Growth:** Areas that might meet the definition of Type 1 and 2 Old Growth have been identified in the SCA layer in the GDSE. This set of areas originated from a subset of forested natural communities within some state Natural Areas, and all A/AB-ranked Natural Heritage database Element Occurrences.

Type 1 and 2 Old Growth SCAs and other possible areas that may be identified by field staff (primarily using stand year of origin inventory data) will be assessed and validated through the compartment review process over the next decade. Figure 2 and Table 1 (Minimum criteria for assessing stand characteristics and classifying Type 1 and 2 Old Growth on the State Forest) should be used to assess and validate Type 1 and 2 Old Growth areas as potential HCVAs. Those validated areas will become HCVAs in the next planning cycle. Those areas that are reviewed and determined not to meet the definition and criteria as Type 1 or 2 Old Growth will be removed from the GDSE SCA layer. Any other assessed and validated SCA or HCVA designation may be retained for the area.



10/22/2015, D. Price



8/17/2011, D. Price

Figure 2. Identification of Type 1 and 2 Old Growth during inventory.

Table 1. Minimum criteria for assessing stand characteristics and classifying Type 1 & 2 Old Growth on the State Forest<sup>1</sup>.

Community	Age <sup>2</sup>	Composition	Structure	Disturbance	Size	Type
<b>Boreal Forest</b>	Canopy trees are 150+ years.	Most species from MNFI abstract. Conifer canopy is greater than 80%.	Canopy trees are greater than 8 inches dbh. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2
<b>Dry-mesic Northern Forest</b>	Canopy Red and White Pine and Oak are 150+ years.	Most species from MNFI abstract.	Wide variation in tree size and spacing, with multiple canopy layers. Canopy trees are greater than 22 inches dbh. CWD present.	No evidence of cutting. <sup>3</sup> Evidence of fire.	3+ acres.	1
				Minor cutting. <sup>4</sup> Evidence of fire.	20+ acres.	2
<b>Dry Northern Forest (Red Pine Variant)</b>	Canopy Red Pine are 150+ years <sup>2</sup> .	Most species from MNFI abstract.	Canopy Red Pine are greater than 20 inches dbh. Canopy Jack Pine are greater than 10 inches dbh. CWD present.	No evidence of cutting. <sup>3</sup> Evidence of fire.	3+ acres.	1
				Minor cutting. <sup>4</sup> Evidence of fire.	20+ acres.	2
<b>Floodplain Forest</b>	Canopy trees are 140+ years.	Most species from MNFI abstract. FQI greater than 35.	Canopy trees are greater than 24 inches dbh. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow and flooding occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow and flooding occurs.	20+ acres.	2
<b>Hardwood-Conifer Swamp</b>	Canopy Hemlock are 220+ years. Canopy Yellow Birch are 150+ years.	Most species from MNFI abstract. FQI greater than 35.	Canopy trees are greater than 14 inches dbh on wettest sites; greater than 24 inches dbh (hardwoods) and greater than 26 inches dbh (conifers) on drier sites. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2
<b>Mesic Northern Forest</b>	Canopy Sugar Maple are 170+ years. Canopy Hemlock are 220+ years.	Most species from MNFI abstract.	Uneven-aged, with multiple canopy layers and gaps. Canopy Sugar Maple are greater than 20 inches dbh. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2
<b>Poor Conifer Swamp</b>	Canopy Black Spruce and Tamarack are 140+ years.	Most species from MNFI abstract. Canopy cover is greater than 50%.	Canopy trees are greater than 10 inches dbh. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2
<b>Rich Conifer Swamp</b>	Canopy Northern White Cedar are 140+ years.	Most species from MNFI abstract. FQI greater than 35. Conifer canopy is greater than 90%.	Canopy trees are greater than 14 inches dbh on wettest sites and greater than 26 inches dbh on drier sites. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2
<b>Rich Tamarack Swamp</b>	Canopy Tamarack and Northern White Cedar are 140+ years.	Most species from MNFI abstract. FQI greater than 35. Canopy cover is greater than 50%.	Canopy Tamarack are greater than 10 inches dbh. CWD and pit and mound microtopography present.	No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2
<b>Wooded Dune and Swale Complex</b>	See criteria for component forested natural communities: Mesic Northern Forest, Dry-mesic Northern Forest, Dry Northern Forest, Hardwood-Conifer Swamp, Rich Conifer Swamp, or Poor Conifer Swamp.			No evidence of cutting. <sup>3</sup> Windthrow occurs.	3+ acres.	1
				Minor cutting. <sup>4</sup> Windthrow occurs.	20+ acres.	2

<sup>1</sup> Criteria are largely based upon those for A-ranked natural communities, as defined in *Draft Criteria for Determining Natural Quality- and Condition Grades, Element Occurrence Size-Classs and Significance Levels for Palustrine and Terrestrial Natural Communities*, Michigan Natural Features Inventory, 17 February 1988.

<sup>2</sup> Ages are species-specific and are roughly based upon years of origin between 1790 and 1870. Age can be less than the minimum criteria in fire dependent ecosystems, when documented stand origin is due to natural fire events.

<sup>3</sup> Evidence of cutting determined by sign of human disturbance (including the physical presence of stumps, rail grades, and roads), geographic isolation, old aerial photography, or by written historical reference.

<sup>4</sup> Minor cutting is defined as having been logged but not effectively clearcut; does not result in the elimination of any major canopy species; and that retains (never lost) significant original elements of old-growth structure and functions.

FQI: Floristic Quality Index, as determined by procedures in: Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodovich, and K. P. Gardner. 2001. *Floristic Quality Assessment with Wetland Categories and Examples of Computer Applications for the State of Michigan - Revised, 2<sup>nd</sup> Edition*. Michigan Department of Natural Resources, Wildlife, Natural Heritage Program. Lansing, MI. 19 pp. + Appendices.

CWD: Corase Woody Debris (standing and downed large diameter decadent trees).

### 3. Management Direction for Compartment Review

Forests are managed for a broad array of biological, ecological, social and economic benefits, values, goals and objectives. Strategic and long term planning that includes biological diversity conservation is addressed through the Michigan State Forest Management Plan and other DNR planning processes. Biodiversity conservation objectives and determinations are conducted at several scales (State, eco-regional, and/or FMU/Compartment/Stand), identified in several specific categories (Special Conservation Areas, and High Conservation Value Areas), and are linked through planning and operational activities. Elements of biodiversity are also addressed through within-stand retention of specific compositional and structural habitat features (snags, coarse woody debris, and live trees – including legacy trees) in forest stands that are scheduled for harvest treatments.

Forest compartments or portion of compartments or stands that contain either of the following elements may have significant biodiversity values that should be considered during the course of compartment review:

- a. A SCA or HCVA in the GDSE.
- b. An area with no previous designations but potentially possessing other biodiversity values.

Stand examiners are required to determine how potential management activities may positively or negatively impact the biodiversity values of the area under consideration for management, and identify specific elements that protect, maintain or enhance biodiversity. The references section of this work instruction may be used in this determination. Management prescription decisions should be recorded in the MiFI treatments comments, and any necessary biodiversity specifications should be included in timber sale contracts or Forest Treatment Proposals.

#### a. Management Direction for SCAs and HCVAs

It is the responsibility of the DNR land management staff to understand the intent of the SCA and HCVA designation and the implications for management activities. Identified SCAs and HCVAs will be managed to conserve, protect, maintain, and/or enhance their defined conservation objectives or values. Management direction will vary depending on the objective and type of designation, as provided in the Michigan State Forest Management Plan, Regional State Forest Management Plans, and any local plans. When a treatment is prescribed for an SCA or HCVA with an intent to implement management direction given in a DNR plan or this work instruction, this intent will be captured in the 'Treatment Comments' within MiFI. Additional management direction for some select SCA and HCVA categories is provided below:

- 1) **Ecological Reference Areas:** ERAs will generally not be managed for timber harvest. Management activities or prescriptions in Ecological Reference Areas are limited to low impact activities compatible with the defined attributes and values of the community type, except under the following circumstances:
  - i. Harvesting activities where necessary to restore or recreate conditions to meet the objectives of the ERA, or to mitigate conditions that interfere with achieving the ERA objectives. In this regard, forest management activities (including timber harvest) may be used to create and maintain conditions that emulate an intact, mature forest or other successional phases that may be under-represented in the landscape.
  - ii. Road building only where it is documented that it will contribute to minimizing the overall environmental impacts within the FMU and will not jeopardize the purpose for which the ERA was designated.

- iii. Existing and new land use activities should be evaluated in the context of whether they detract from achieving the desired future conditions of the natural community for which the ERA was designated. The acceptability of land use activities within DNR-administered ERAs will be evaluated using severity, scope, and irreversibility criteria, as established in DNR IC4199, Guidance for Land Use Activities within DNR-Administered Ecological Reference Areas.
- iv. Threats such as fire, natural or exotic pests or pathogens may warrant other management measures.
- v. Harvesting and other management activities in presently accessible areas located within the peripheral boundary of an ERA that are NOT the natural community of focus and which may or may not be typed as a separate stand or forest type (e.g. an upland island of previously managed aspen within a bog complex) may be prescribed for treatments, contingent upon a determination of no anticipated direct or indirect adverse impact to the defined attributes and values of natural community for which the ERA was designated. The FRD Biodiversity Conservation Program leader shall be consulted regarding the determination of any direct or indirect adverse impact.
- vi. Land management activities immediately adjacent to an ERA should consider any anticipated direct or indirect adverse impact to the defined attributes and values of natural community for which the ERA was designated.

Management will be adaptive. ERAs will be monitored to determine if implemented management activities are moving the natural communities forward, or maintaining them at their desired future condition. The network of ERAs will be evaluated every five years for their contribution to the overall goal of biodiversity conservation. This review cycle will allow for the potential addition or subtraction of lands from an ERA, designation of new ERAs, or removal of the ERA planning designation.

- 2) **Dedicated Habitat Areas:** Dedicated Habitat Areas can be managed for timber production, consistent with natural disturbance regimes, and forest composition and structure required for the species of interest, specifically:
- i. For species-specific habitat areas: Forest management and timber harvesting activities (including prescribed fire) are conducted to maintain, restore or create the composition and structural forest conditions necessary to provide the habitat needs of the specific species, using silvicultural techniques to emulate the frequency and severity of natural disturbance regimes.
 

The Strategy for Kirtland's Warbler Habitat Management provides detailed direction for management.

Existing land use activities and seasonal restrictions on access and use may be governed by DNR Land Use Orders of the Director, including those specifically for Kirtland's warbler (LUOD 3.10) and piping plover (LUOD 3.8 and 5.7) nesting areas.
  - ii. For interior core habitat areas: Areas that also have some other designation (such as an Ecological Reference Area, Natural Area, or Natural River) shall be managed for those purposes following management direction provided in DNR policies and procedures and plans.
 

For all other areas, forest management and timber harvesting activities (including prescribed fire) should be used to create and maintain the compositional and structural conditions that emulate an intact, mature forest or other successional phases that provide necessary habitat for interior core forest-dependent species.

Specific emphasis is given to minimizing fragmentation of the forest by limiting the size, spatial distribution, and number of forest openings to that characteristic of the natural disturbance regimes associated with the specific forest type. This may be accomplished through the use of temporary access roads, by minimizing the number and size of permanent access roads and trails, and/or by mitigating the impact of roads, trails, and pathways through the maintenance of forest canopy closure over such infrastructure.

Management direction may be provided by Regional State Forest Management Plans, State Park General Management Plans, State Game Area Master Plans, or other local plans.

- iii. Threats such as wildfire, natural or exotic pests or diseases may warrant other management measures, such as salvage harvests.

Management will be adaptive. Management strategies may change as additional information becomes available. The network of Dedicated Habitat Areas will be monitored and evaluated for their contribution to the habitat needs of the identified species at the frequency specified in associated species-specific management plans, and every five years for other areas. This review cycle will allow for the potential addition or subtraction of lands from a Dedicated Habitat Area, designation of new areas, or removal of the Dedicated Habitat Area planning designation.

- 3) **Potential Old Growth:** No vegetative treatments shall occur in areas currently identified as Potential Old Growth until these stands are evaluated in the context of other SCA categories, excepting activities that protect immediate natural resource values (such as control of invasive species pests and wildfire suppression) or human health and safety.
- 4) **Type 1 and 2 Old Growth:** Type 1 and 2 Old Growth SCAs assessed and validated through the compartment review process shall be protected from harvesting and other timber management activities, except as needed to maintain the values associated with the stand (e.g. removal of invasive species, prescribed fire, and thinning from below for purposes of restoration).

## **b. Management Direction for Rare Species Review and Within-Stand Retention**

### **1) Review for Rare Species**

During the compartment review process, determine if there is a high likelihood of finding a rare species (threatened, endangered, or special concern plant or animal species) within or near the site of any proposed forest operations, by following the Michigan DNR Rare Species Protection Approach and Resources for DNR Staff on State Forest Lands (IC 4172, dated 2008), Figure 3 and the following direction for rare species review.

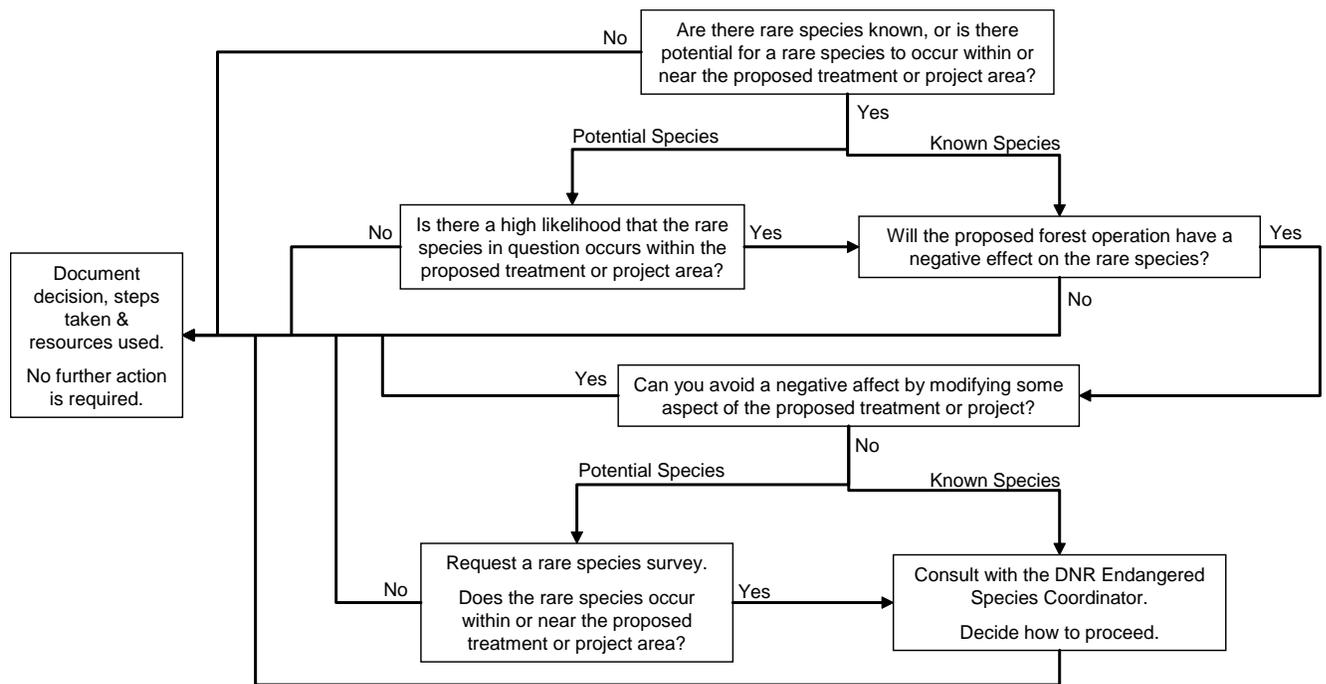


Figure 3. Review for rare species for forest operations.

Use historic Compartment Review Comments prepared by contract services (e.g., MNFI ecologists) and other information resources available to help determine the likelihood of finding a rare species. Other information resources may also include MNFI web applications, the Natural Heritage database records, MNFI species and community abstracts, Michigan Wildlife Action Plan and GAP habitat models (see references), as well as consultation with experts. A check of the Natural Heritage database records is REQUIRED in all cases because of the dynamic nature of the database. The check of the Natural Heritage Database should be recorded in the checkbox in the Inventory Status tool and the locked comments box should record whether or not any species were identified and what was done to ensure there were no impacts to those species. The Timber Sale Checklist should also record that the Natural Heritage Database was checked and should be included in the compartment file.

If yes, a rare species is confirmed to occur or there is a high likelihood of a rare species occurring within or near the site of a proposed forest operation, determine (with consideration of existing management guidelines and agreements) whether a potential conflict exists (and cannot be avoided) between proposed forest operation(s) and the rare species. Use similar resources as above (including consultation with experts, as needed) to make determination. Document in a concise manner the determination, rationale for determination, and resources used to develop rationale and place a signed and dated copy in the Compartment file.

- a. If yes, a potential conflict exists and the species is confirmed to occur within or near the site of the proposed forest operation(s), consult with the DNR Endangered Species Coordinator (and FD representative for reptiles and amphibians, if appropriate) and decide how to proceed. Document decisions, resources used to make the decisions and pertinent information from those resources and place a signed and dated copy in the Compartment file.
- b. If yes, a potential conflict exists and there is a high likelihood of finding a rare species (as determined above), but the species is not confirmed, request a survey to determine if the species occurs within or near the site of the proposed forest operation(s). Survey requests must be submitted through the Forest Management Unit Supervisors to both the FRD Forest Planning and Operations Section Manager AND the FRD Biodiversity & Conservation Program Leader. Refer to the Michigan DNR Rare Species Protection Approach and

Resources for DNR Staff on State Forest Lands (IC 4172, dated 2008) for details on requesting a survey. Place a copy of the survey results in the Compartment file. If species is confirmed, record presence of species in MiFI Opportunistic Field Survey (OFS) locked comments, and follow 'A' above.

While preparing treatments, refer to decisions recorded regarding rare species and potential conflicts with proposed forest operations. If implementation actions vary from those approved at the compartment review or new information becomes available, staff must re-assess the potential for rare species to occur and potential impacts on any species identified, make a new determination regarding potential conflicts, and follow-up with a survey and/or consultation with the DNR Endangered Species Coordinator, as appropriate.

## 2) Within-Stand Retention Guidance

Stand examiners shall follow *DNR Within-Stand Retention Guidance* in proposed timber harvest prescriptions for the purpose of conserving stand-level biodiversity elements (e.g. snags, coarse woody debris, edge, perches, and legacy trees).

Legacy trees shall be marked as individual "leave trees" and specifically protected from harvest in timber sale specifications, subject to forest health and human health and safety concerns. Legacy trees are not permanent features and individual trees are not tracked in inventory.

Record management prescription decisions in MiFI treatments, under review comments. Document and track area retention in the inventory system with Site Condition coding. Add biodiversity considerations to timber sale contract specifications and Forest Treatment Proposals.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: MNFI

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Recreation

### Responsibility and Role: (Staff who will implement or supervise this instruction)

Job Title/Division	Role
State Biodiversity Conservation Planning Team	Statewide biodiversity assessments, planning and review, and make final recommendation on HCVAs and ERAs.
All Divisions	Regional biodiversity assessments and planning
Unit Manager and District Planner/ FRD; Wildlife Habitat Biologist and Wildlife Ecologist / WD; Fisheries Biologist/FD	Compartment/FMU biodiversity assessments, planning, and operations
Stand Examiner/FRD	Identification of conservation elements
Michigan Natural Features Inventory/MSUE	Analysis, identification and management guidance of elements of biodiversity
Endangered Species Coordinator/WD: Fisheries representative for reptiles and amphibians	Analysis, identification and management guidance and permitting for elements of biodiversity
Program Specialists: Conservation & Biodiversity Prog., FRD Natural Areas, WD Natural Rivers, FD	Management guidance and monitoring direction for Natural Areas, Natural Rivers, High Conservation Value Areas, and Ecological Reference Areas.
Conservation Officers/LD	Enforcement on special sites (HCVAs, ERA, Natural Areas)

**Training/Skills:**

(Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
Biodiversity Approach	Training on biodiversity approach	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Biodiversity Assessments	Training on assessment techniques	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Biodiversity Guidelines	Training on related community management guidelines	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Community & Elements	Training on recognizing Michigan natural communities and elements	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Special Site Management	Training on natural rivers, natural areas, HCVA, and ERA management	<input checked="" type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**Federal Law:

Wilderness Act of 1964 (16 U.S.C. 1131-1136, 78 Stat. 890) - Public Law 88-577  
 Wild and Scenic Rivers Act of 1968 *P.L. 90-542, as amended*(16 U.S.C. 1271-1287)

State Law:

Natural Resources and Environmental Protection Act, PA 451, 1994, as amended  
 Part 005 General Powers and Duties  
 Part 305 Natural Rivers  
 Part 351 Wilderness and Natural Areas  
 Part 355 Biological Diversity Conservation  
 Part 525 Sustainable Forestry on State Forestlands

DNR Policy & Procedures

Natural Resource Commission Policy  
 2207 – Management of State Forests  
 2703 –Natural Rivers  
 2704 –Wilderness and Natural Areas  
 2706 – Sand Dune Management and Protection—Department Operations

## Forest Resources Division:

Policy 441, Operations Inventory and Compartment Review Procedures  
 Resource Assessment Process Flow Chart, April 2002  
 Conservation Area Coding  
 Guidance for Land Use Activities within DNR-Administered Ecological Reference Areas (IC4199, dated 11/03/2010)  
 Within-Stand Retention Guidance (IC 4110, dated 1/27/2012) and interoffice communication providing Clarification of Within-Stands Retention Guidance for Aspen Stands dated September 3, 2014  
 Michigan Woody Biomass Harvesting Guidance (IC 4069, dated May 2010)  
 Natural Areas Program Strategic Plan, March 29, 2000. Michigan Department of Natural Resources, Natural Heritage Program, Wildlife Division Lansing, MI 16 Pp. Adopted By DNR Management Team 2000.  
 DNR Silvicultural Guidelines  
 Michigan State Forest Management Plan 2008. Mich Department of Natural Resources, Lansing MI. 276 pp.  
 Mich DNR Rare Species Protection Approach and Resources for DNR Staff on State Forest Lands (IC 4172, dated 2008).

Department Programs

Endangered Species Program, Wildlife Division  
 Natural Areas Program, Wildlife Division  
 Natural Rivers Program, Fisheries Division  
 Parks Stewardship Program, Parks and Recreation Bureau

Cooperative Agreements/Grants/MOUs

Partnership between DNR, The Nature Conservancy and the Michigan Natural Features Inventory, Michigan State University Extension to survey for, compile and update information on threatened and endangered species and high quality natural communities in Michigan.

Partnerships between the US Fish and Wildlife Service and Wildlife Division for the management of wildlife, fish and federally listed endangered and threatened species.

#### Electronic or Geographic Information Data

Spatial data library

FRD biodiversity information layer

MiFI database and maps

GDSE data: Areas of Interest database, Treatments database, Opportunistic Field Survey Database

Michigan Natural Features Inventory (MNFI)

Natural Communities of Michigan: Classification and Description

Community and Species Abstracts

Habitat models (under development)

U.S. Fish & Wildlife Service species recovery plans

[http://ecos.fws.gov/tess\\_public/TESSWebpageRecovery?sort=1](http://ecos.fws.gov/tess_public/TESSWebpageRecovery?sort=1)

The list of Michigan Federal Endangered and Threatened Species in Michigan is on the DNR Forest Certification web page.

#### Other Information and Resources

Burger, T. and J. Kotar. 2003. A guide to forest communities and habitat types of Michigan. University of Wisconsin, Madison, WI

Michigan Department of Natural Resources

Michigan Wildlife Action Plan. 2005. Michigan Department of Natural Resources

Michigan GAP models - Donovan, M. L., G. M. Nessler, J. J. Skillen, and B. A. Maurer. 2004. The Michigan Gap Analysis Project Final Report. Wildlife Division, Michigan Department of Natural Resources, Lansing, MI. 184 + Appendices.

Interim Guidelines for Mesic Conifers in the West UP included in Herman, K, and M. Joseph, T. Oliver, D. Wagner, H. W. Scullon, J. Ferris, D. Kuhr. April 16, 2004. A process for implementing Mesic conifer restoration on state land, Western Upper Peninsula, Michigan. Michigan Department of Natural Resources, Marquette, MI. 38 pp.

Guidelines for Red Pine Management based on Ecosystem Management Principles for State Forestland in Michigan. 2006. Michigan Department of Natural Resources, Lansing MI. 56 pp.

USDA Forest Service

FSM 2300 - Recreation, Wilderness, and Related Resource Management, Chapter 2320 - Wilderness Management

North Central Cover Type Handbooks

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#### **Monitoring:**

Monitoring biodiversity and compliance with this Work Instruction will be done through a variety of mechanisms.

- Prior to the Year-of-Entry (YOE) data revision/update deadline, Land management staff and District Planners will ensure that all stand comments and stand condition codes are compatible.
- Annual internal audits will include reviews of stand level biodiversity considerations.
- Department-wide review and documentation of high quality natural communities will be conducted as part of the 5-year review and approval of Ecological Reference Areas.

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#### **Records:**

- MiFI database of State forest lands, maintained at state-wide level and recorded at local level (stands within a compartment). The database will include conservation objectives and crosswalk with protection and management directives.
- GDSE data layers for HCVAs and SCAs.
- Compartment Review packets and meeting documents.
- Monitoring reports (see Monitoring section)

# MICHIGAN DEPARTMENT OF NATURAL RESOURCES

## Forest Certification Work Instruction

DRAFT     FINAL

**Date of Draft Document:**

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**Supersedes Version Dated: 6-23-15**

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**Work Instruction Title:** 1.5 Social Impact Considerations and Public Involvement Processes

**Work Area Group:** 1 – Plan, Monitor and Review

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**Purpose:** Outline the existing and new means by which social impacts are considered and public involvement processes occur for State Forest management.

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### Work Instruction:

#### 1. Policy:

- a. NRC Policy 2207 regarding management of State Forests states the following:
  - 1) “The Department shall consider all the values of forest resources.”
  - 2) “The Department shall manage the total forest system under a management concept which will yield a combination of products, services and total values to meet the economic and environmental needs of present and future generations. All important products of forest resources – timber, fish and wildlife, minerals (including oil and gas), recreation, environmental and aesthetic values – shall be given fair and equitable consideration.”

Such fair and equitable considerations will be a part of normal business at all DNR administrative levels from the Management Unit through the District level to the State level. This includes social impact considerations. Evidence of social considerations is to be a part of documents pertaining to everyday activities (e.g. inventory and treatment decisions) and plans (e.g. Wildlife Action Plans, and Regional State Forest Management Plans).

- b. NRC Policy 1005 (Public Involvement in Activities of the Department) assures social impact considerations through public involvement processes. The general policy begins with:

“Citizen participation and interest in the activities of the Department shall be encouraged in all possible ways. Attention to citizen questions, inquiries, complaints, and requests shall be considered a principal duty by employees at all levels.”

- c. NRC Policy 1022 and the accompanying Procedure 1022.2 provides for the appointing of special task forces, study groups, and committees. These are to be:

“...used on all possible occasions to develop proposals and recommendations on significant issues, problems and procedures facing the Department. The subject with which the group is to deal must be specific and clearly defined so that positive recommendations can be made. Time limitations and completion dates shall be carefully outlined. Membership must be limited to a workable size, and the time of a sizable number of people should not be unduly requested. All appointments are by the Director or Deputy Directors.”

The procedure for forming a Special Task Force, Study Group, or Committee by a Bureau Chief, Regional Director, Division or Office is spelled out in Procedure 1022.2

Recent examples of special task forces, study groups, and committees include the DNR Land Review Team, Commercial Use of State Land Work Group, ORV Work Group, the Wolf Management Work Group, and the Keweenaw Point Advisory Committee.

- d. DNR Administrative Procedure 17.01.03 addresses DNR Employees' involvement with stakeholder and public working groups (ISSUED: 05/24/2005). It further reinforces the role of public involvement in stating:
- 1) "The Department believes that citizen advisory committees and stakeholder working groups encourage citizen participation in government and are helpful to agencies in decision-making and in developing approaches to new and existing programs."

It requires:

- 2) "When a Department of Natural Resources public work group (e.g., DNR Hunter Recruitment and Retention Work Group) includes a communication component (public meetings, brochures for the public, etc.), the [Marketing and Outreach Division] must be notified or contacted."

In turn, the Office of Communications is required to:

- 1) Inform the DNR Management Team of the formation of work groups that involve and engage stakeholders and other DNR constituencies.
- 2) Coordinate and/or plan a communications strategy, as necessary, with divisions/offices and DNR employees who participate in the work group.
- 3) Ensure that the [Marketing and Outreach Division] maintains a database of current work groups and their members.

## **2. Forest Management Unit Level:**

- a. The Compartment Review (CR) process is open, public, advertised, and communicated through web postings and informational mailings. Both existing uses and possible future uses of the State Forest are evaluated through this process (DNR Policy and Procedure 32.22-15 – State Forest Inventory and Compartment Review). Social impacts are considered through the evaluation of public comments as they are part of the compartment review process. Specific topics that are identified in the Compartment Review include:
- 1) Management goals
  - 2) Ownership patterns, development, and land use in and around the compartment
  - 3) Archeological, Historical and Cultural features
  - 4) Special management designations or considerations
  - 5) Mineral resource and development concerns and/or restriction
  - 6) Vehicle access
  - 7) Recreational facilities and opportunities
  - 8) Wildlife and Fisheries management considerations

There are three formal opportunities to gather public comments during the compartment review process including: participation in the annual FMU open house, comments submitted via the FMU web page or directly to the FMU staff, and direct participation at the compartment review. Unsolicited comments can be submitted at any time prior to the compartment review and will be considered.

All written comments received will be presented at the compartment review and will be made part of the permanent record of the compartment. Minutes of the compartment review will include a summary of justifications for changes to prescriptions, and will document consideration given to comments received from the public.

- b. Special interest and ad hoc meetings with the public are conducted as needed. Written records will be kept by the DNR lead contact.

### 3. Regional/District Level:

- a. Social values will also be considered through the public involvement processes in the revision of Regional State Forest Management Plans (RSFMPs). through public meetings and a comment period before the final draft revised plans are submitted to the DNR Director for approval. (See Work Instruction 1.3).
- b. Social values and impacts will be considered as part of special projects which cross FMU boundaries. Examples include Snowmobile and ORV plans and trails. Both internal and external expertise will be secured to assist in such assessments. Meeting notes, correspondence, and recommendations of committees or groups affiliated with such projects will be retained by the designated DNR lead.

### 4. State or Division Level:

- a. Natural Resources Commission Policy 1005 includes the following direction:
  - 1) A portion of each public meeting of the Commission shall be set aside for citizen appearance. All other commissions, boards, councils, and other advisory bodies associated with the Department shall do likewise.
  - 2) Public hearings and meetings shall be held when increased input from the public is needed, as well as when legally required. These shall be held at times and places convenient to the public, adequate notice shall be given, and reasonable effort be made to provide the public with information on the issue involved.
  - 3) As time permits, employees shall attend and participate in both formal and informal meetings of organizations which have environmental and natural resource concerns.
  - 4) Full cooperation shall be given to the Governor, Legislature and other governmental agencies in furthering the principle of public involvement
- b. The DNR Forest Management Advisory Committee has been established to advise the Director of the DNR. The purpose of the Committee is to assist the DNR in balancing environmental, social and economic issues while carrying out the DNR's forest resource management responsibilities. The Committee will provide a mechanism whereby interested persons can play an advisory role in the formation of DNR priorities and practices. It will also:
  - 1) Identify potential long-term threats to forest resources in the State.
  - 2) Describe economic and environmental opportunities that are linked with forest resources.
  - 3) Address management problems, opportunities and challenges related to public and private forest ownership.
  - 4) Provide active participation in the DNR's forest resource planning activities, including forest certification efforts.
  - 5) Identify appropriate partnerships with other agencies that impact Michigan's resources.

Membership will include DNR staff, forest industry organization representation, university personnel, other government agency representation, conservation and environmental organizations, and other interested parties as determined by the DNR Director. This committee will also evaluate the need for additional social impact evaluations.

- c. The Timber Advisory Council has been established to provide advice and counsel to the Governor, the Michigan Department of Natural Resources on policy, procedure, issues, and concerns related to timber management in this state, specifically:
  - 1) Policy, procedure, issues and concerns related to timber management in this state.
  - 2) Suggest and participate in studies that will foster the work of this committee and the growth of the timber industry in the state.
  - 3) Assist in improving the working relationship between the timber industry and the Department.
  - 4) Advise the Department on the types of information that the Department should produce and disseminate to help to foster the growth of industry in the state.
  - 5) Advise the Department and Director on federal forest issues.

- 6) As individuals, serve on temporary internal committees that focus on particular issues.
  - 7) Participate in the interview process for the state forester.
  - 8) Provide appraisal of emerging issues, areas of concerns and accomplishments.
  - 9) Be a sounding board for legislative proposals.
- d. Many other statewide advisory committees exist, examples include:
- 1) Michigan Snowmobile and Trails Advisory Council,
  - 2) Citizens Waterfowl Advisory Council,
  - 3) Hunter Recruitment and Retention Work Group,
  - 4) Michigan State Parks Advisory Committee

**Scope:** (All State Forest Land and Affected Divisions):     State Forest Land  Other: Michigan lands other than State-owned

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Stand Examiners	Consider social impacts of DNR operational activities and document in inventory databases, Compartment Review (CR) Summaries and Compartment Review meeting notes.
FRD Inventory and Planning Specialists	Assure social impact considerations are documented in inventory databases, CR Summaries and CR meeting notes.
FRD Forest Planning and Operations Section	Consider and/or develop recommendations for operations based on social and other impacts. Include public meetings and input opportunities during regional plan development. (District planning and ecologist staff will conduct much of this work while the Lansing planning staff oversee and review their work.)
Unit Managers, District Supervisors, program staff, Field Coordinators, Division Chiefs, Deputy Directors	Assure both social considerations and public involvement processes are incorporated and properly documented in recommendations and decisions; meet with natural resource-related organizations on matters of concern; propose special task groups or committees to address issues as needed and assist such groups as requested
DNR Forest Management Advisory Committee	Provide advice to the DNR Director in balancing environmental, social and economic issues in carrying out the DNR's forest resource management responsibilities
Timber Advisory Council	Provide advice and counsel to the Governor and the Michigan Department of Natural Resources on policy, procedure, issues and concerns related to timber management.

**Training/Skills:** (Those required to accomplish work instruction)

Item:	Brief Description of Skill or Course	Exists/ New
Identification of Social Impacts	Ecoregional and FMU processes that identify, track, and report impacts (some old, some new)	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- NRC Policy 1005 – Public Involvement in Activities of Department
- NRC Policy 1006 – Department Position – Presentation at Hearings and Meetings
- NRC Policy 1022 and DNR Procedure 1022.2– Appointing Special Task Forces, Study Groups and Committees

- NRC Policy 2207 and related DNR Procedure 2207.7 – Management of State Forests
  - Administrative Procedure 17.01.03 – DNR Employees’ Involvement with Stakeholder and Public Working Groups
  - 2008 Michigan State Forest Management Plan
  - Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451
  - FMU Analyses and Ecoregional Plan Development Work Instructions
  - Implementing Public Educational Opportunities on State Forests Work Instruction
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**Monitoring:**

- Reporting, monitoring, analyzing, and adapting management take place on an ongoing basis at all 3 levels- FMU, Ecoregion, and Statewide.
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**Records:**

- Monitoring measurements and reports
  - Public comments
  - Public meeting notes and comments
  - Documented approvals
  - Maps and background documents
  - Analysis results
  - Draft and final plan documents
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**Michigan Department of Natural Resources  
Forest Certification Work Instruction**

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**Work Instruction Title:** 1.6 Forest Management Unit Analyses

**Work Area Group:** 1 – Plan, Monitor, and Review

**Purpose:** Develop and use GIS layers, maps and tabular data to link compartment information and stand-level decisions to broader FMU landscape issues, including forest type acreage, age class trends and management objectives from Regional State Forest Management Plans.

## **Work Instruction:**

### **1. Pre-Inventory Data Analyses**

- a. FMU analyses by management area will be prepared by the FRD District Timber Management Specialist (TMS) and the Inventory Planning Specialist (IPS), and will describe the following: major cover type trends and projections of age classes (or basal area), harvests from historical and current inventory and timber sale information, and also provide direction toward achieving forest type management objectives for each management area, as identified in Regional State Forest Management Plans (RSFMPs).

The Wildlife Division (WD) Ecologist will provide information regarding the habitat needs of the featured species in each MA. Fisheries Division (FD) biologists and Parks and Recreation Division (PRD) trail specialists will provide information on resources within the compartments that may require consideration. The WD Habitat Biologist assigned to the unit will be responsible for identifying the location of all lands purchased for wildlife considerations (usually with restricted funds) and ensure they are being managed to benefit wildlife species.

Topics to be reviewed as they relate to the Year-of-Entry (YOE) compartments should include:

- 1) Soil and Topography
- 2) Ownership patterns, development, and land use in and around the compartment
- 3) Unique, natural features
- 4) Archeological, historical and cultural features
- 5) Special management designations or considerations (Special Conservation Areas (SCAs), and High Conservation Value Areas (HCVAs))
- 6) Watershed and fisheries considerations
- 7) Wildlife habitat objectives
- 8) Land acquisition source
- 9) Mineral resource and development concerns and/or restrictions
- 10) Vehicle accessibility
- 11) Survey needs
- 12) Recreational facilities and opportunities (campgrounds, trails, etc.)
- 13) Fire protection

In addition to these existing topics of concern, maps and/or information may be developed pertaining to forest health concerns, regeneration activities, existing socioeconomic data, forest type trends, tribal interests, public input, and other broad resource information.

The IPS and TMS will assess whether agreed upon prescriptions from previous compartment reviews were successfully implemented and whether we are on track for achieving goals outlined for each MA.

- b. The Resource Assessment Section (RAS) will maintain the GDSE data layers, and notify Division staff responsible for review of data layer updates subsequent to the initial round of analyses. The RAS will annually review and update the data layers.
- c. All management area analyses will be presented and distributed to all resource division staff at the pre-inventory meeting.

## **2. The Pre-Inventory Meeting**

FMUs will conduct a pre-inventory meeting to discuss the YOE compartments. The purpose of the meeting is to review analyses of current forest inventory data and management objectives from RSFMPs.

This meeting is a group meeting for the FMU involving all affected Divisions and programs. The FRD IPS will consult with co-managers to schedule and coordinate the meeting. The FRD District Supervisor will ensure meetings occur; are coordinated with other staff and other Division interests; and are properly documented.

The meeting should use the management area information listed above and other data to put the year-of-entry compartments into a landscape level context defined by the appropriate management area section in the RSFMP. This will be accomplished through the pre-inventory analyses.

## **3. Inventory of YOE Compartments**

The stand examiner collects forest inventory data (following the procedures provided in the inventory manual) for their assigned YOE compartments, and develops preliminary prescriptions. This may require additional consultation with WD or FD biologists, and PRD trail or other specialists.

## **4. The Pre-Review Meeting**

The pre-review meeting (which is different from the pre-inventory meeting) will be held for each FMU. It will involve all affected Divisions and program staff, for the purpose of discussing and refining preliminary prescriptions. The IPS will schedule and coordinate the meeting with relevant DNR staff.

Following the completion of field work for forest inventory data collection and development of preliminary prescriptions, and prior to the pre-review meeting, the TMS and IPS will develop age class and harvest projections. This report will include the contribution of preliminary timber prescriptions toward achieving goals and objectives for cover types and wildlife habitat in the appropriate MA section of the RSFMP. This information will be provided to all resource division participants in the pre-review meeting.

The office of the State Archaeologist at the State Historic Preservation Office (SHPO) will be notified when draft treatment proposals are completed to enable review of the potential impact of treatment proposals upon archeological, historical, and cultural features and solicit feedback in advance of the pre-review meeting.

The WD Ecologist and Habitat Biologists will assess the implications of prescriptions on selected featured species. The FD Biologist will identify impacts to aquatic species and habitats. The PRD trail specialist will identify recreational facilities that may be impacted by the proposed treatments. These and other resources will be documented within a compartment, and will be considered, if present in proposed treatment areas.

The RAS will provide standard maps and reports prior to the pre-review meeting which will be available through the RAD Tools Application.

The TMS and IPS will revise harvest projections and preliminary implications of proposed prescriptions based upon any modifications that are made at the pre-review meeting.

## 5. The Compartment Review

The compartment review is where final decisions on management prescriptions are made by DNR staff.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: Michigan lands other than State-owned  DNR – FRD  DNR – Wildlife  DNR – Fish  DNR – Law  DNR – Parks

### Responsibility and Roles: (Staff who will implement or supervise this instruction)

Job Title/Division	Role
FRD Certification Resource Analyst	Identify GIS layers and develop FMU analysis, maps, tabular products and brief narratives corresponding to Compartment Review Summary categories. Distribute to field offices through appropriate means and train personnel in their derivation and use. Assist as requested with posting of information on web pages.
FRD Timber Management Specialists	Develop projections and preliminary implications of prescriptions for FMU.
FRD Inventory Planning Specialist	Schedule pre-inventory and pre-review meetings.
Stand Examiners, other FMU personnel, WD Ecologists and Biologists and FRD Planners	Review new FMU analysis information and any ecoregional planning concerns prior to field exam. Following compilation of prescriptions, consider their implications for future forest conditions (e.g. age class).
FMU Manager	Work with FRD Webmaster to incorporate and maintain information on web pages.
FMU Unit Manager	Assure review of information at FMU level including documentation of considerations and designate FMU staff to assist in the development of web pages incorporating information.
FRD District Supervisor	Ensure pre-inventory meetings occur; are coordinated with other staff and other Division interests; and are properly documented.

### Training/Skills: (Those required to accomplish work instruction)

Item:	Brief Description of Skill or Course	Exists/ New
FMU Analyses	District Specialists conduct analyses, produce accompanying maps and summary reports, and review the analyses in the context of planning requirements.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
On-site, FMU training	FMUs, esp. those to be audited, need to demonstrate knowledge and understanding of analyses (Unit Managers, Stand Examiners, FRD Planners, Cert. Resource Analyst)	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
GIS/Analysis Skills	ArcView/ArcInfo	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

### References:

- DNR Policy and Procedure 32.22-15 – State Forest Inventory and Compartment Review
- Work Instruction 1.4 - Biodiversity Management on State Forest Lands
- Work Instruction 1.1 - Strategic Framework for Sustainable Management of State Forest Land
- Work Instruction 1.3 – Regional State Forest Management Plan Implementation and Revision
- Work Instruction 1.5 - Social Impact Considerations and Public Involvement Processes

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**Monitoring:**

- Reporting, monitoring, and analyzing of performance to take place at all 3 levels-FMU, District, and Statewide with subsequent management adaptations at the FMU level.
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**Records:**

- Constructed GIS layers
  - Maps, tables and background documents for use by FMU and web postings
  - Open house and compartment review meeting notes and comments
  - Maps and background documents
-

Michigan Department of Natural Resources  
**Forest Certification Work Instruction**

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**Work Area Group:** 2 – Forest Regeneration and Chemical Use

**Work Instruction Title:** 2.1 Reforestation

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**Purpose:** To define forest regeneration requirements on State Forest Land.

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## **Work Instruction:**

### **1. Management Objective:**

Forest regeneration will contribute to a distribution of successional stages, age classes, and community types at the appropriate scale and intensity. Silvicultural practices will encourage regeneration that is consistent with the management objective agreed upon at compartment review. Broad genetic and species diversity as well as the ecological impacts of planting must also be considered.

Reforestation of difficult to regenerate stands or endemic species will be a consideration when a stand is prescribed for harvest. Stand examiners shall make comments in the forest inventory (MiFI) system treatments database (Acceptable Regeneration comment field of the Treatments database) reflecting an acceptable species mix should the stand not regenerate to the management objective and this must be agreed to at compartment review. Stands that cannot be regenerated to the desired management objective or approved alternative will not have a regeneration harvest prescribed. When desirable advanced regeneration is present within a stand, comments should be included in MiFI that will lead to the inclusion of relevant timber sale contract specifications and the retention of this regeneration. Management guides and [FRD Reforestation policy](#) should be consulted in these regards as needed. Any regeneration work prescribed and approved will be documented on a Forest Treatment Proposal (FTP) Form [R4048](#) in accordance with the reforestation policy.

### **2. Indication of Regeneration Method:**

Forest inventory codes will be used to determine if a stand will be artificially or naturally regenerated. The regeneration method for stands prescribed for regeneration harvests in MiFI is indicated by the cover type management objective for the treatment. If a stand is being regenerated artificially, appropriate initial treatments and corresponding 'next steps' should be coded into the Treatments database. Stands being naturally regenerated will have appropriate "Monitoring" treatments or next steps created in the Treatments database.

### **3. Exotics:**

The [FRD Reforestation policy](#) addresses the planting of exotic (non-native) species. While the practice is discouraged and minimized, it is not prohibited. The same policy also outlines the documentation required for completion of the Forest Treatment Proposal Completion Report ([R4048-1](#)), which is required for all plantings, whether exotic, improved or from another source. All of the plantings must be summarized annually using the Planting Summary ([R4046e](#)). The Forest Health Specialist in conjunction with the Nursery Manager (tree improvement specialist) and Timber Management Specialist (TMS) are responsible to insure all stock meets policy and legal guidelines. These individuals shall also monitor or participate in any testing or application of improved planting stock. The planting of genetically modified species (GMO) is prohibited.

#### 4. Timing and Adequacy of Regeneration:

Unless delayed for site-specific environmental or forest health considerations, stands prescribed for a regeneration harvest will be regenerated within two growing seasons from the date of the timber cutting report if it is regenerating artificially and within five years if regenerating naturally. Site-specific environmental considerations include needs for sequencing multiple site preparation actions (various combinations of roller-chopping, prescribed burning, herbicide applications, and trenching). Site-specific forest health considerations include regeneration issues related to exotic insects and diseases (e.g. EAB, BBD, Oak Wilt). A timber cutting report (TCR) is the document that concludes a Timber Sale Contract.

Whenever a timber cutting report is generated, the contract administrator will update MiFI, closing the treatments associated with the sale, updating the stand inventory and creating 'Next Step' treatments per the approved treatment plan. The reforestation clock for regenerating the stands contained within the sale will begin when contract is completed. The Unit Manager will be responsible for the preparation and updating of regeneration lists. Those stands requiring TMS assistance for regeneration will be forwarded to the TMS as needed, but at least annually. The TMS will be required to provide any available regeneration information, such as shape files, regeneration counts, and FTP Completion Reports ([R4048-1](#)) before regeneration lists and the inventory database can be updated.

The TMS will be responsible for completing artificial regeneration within two growing seasons of when the timber sale cutting report was completed or for documenting reasons for non-compliance. This regeneration must be the same type or species mix as agreed to at compartment review. If conditions after harvest are such that regeneration to the approved management objective cannot be obtained, the TMS must seek a change in management objective by going through the post review (change) process (as currently outlined in DNR Policy and Procedure 32.22.15).

Minimum stocking levels for stands prescribed for natural regeneration will follow the Minimum Acceptable Regeneration & Height Table in the Regeneration Survey Manual. Minimum stocking levels for stands prescribed for artificial regeneration (planting, direct seeding and broadcast seeding) will follow the FRD Reforestation Policy or Silvicultural Guidelines, whichever is more stringent.

#### 5. Regeneration Monitoring:

District Forest Supervisors are responsible for overseeing and ensuring that regeneration surveys are completed and documented, and for coordinating any necessary corrective actions. Unit Managers are responsible for all reforestation activities on the Unit, however, the TMS shares in the responsibility for those stands forwarded to them. Unit Managers will be responsible for tracking stands and initiating follow up action in consultation with the TMS.

All stands that are prescribed for a regeneration harvest will be progressively sampled. At a minimum, each stand will be checked for adequate regeneration in a manner consistent with MiFI Stand inventory procedures (i.e. remote calls, edge calls, and walk through examination are options), using the procedure outlined in the [Forest Regeneration Survey Manual](#).

Naturally regenerating stands will primarily be checked by stand examiners during the next regularly scheduled compartment inventory to determine if regeneration has been successful. Regeneration checks for stands that were originally prescribed for a regeneration harvest under the Operations Inventory (OI) system will be scheduled using the regeneration time clock spreadsheet, unless the Unit has re-coded those checks as Monitoring Treatments in MiFI. The time clock spreadsheet will be maintained until the stands have successfully regenerated AND compartments have been converted to MiFI. Stands prescribed under the MIFI system must have a Regeneration Check scheduled as a 'Next Step' treatment after closing the sale, or completing the last cultural treatment step. A Next Step Monitoring Treatment should be coded that specifies artificial or natural methods and whether the regeneration check would occur at the next inventory cycle or sooner, as well as coding the appropriate Proposed Start Date so that the area is monitored in the appropriate year.

Stands of special concern will be scheduled for an out-of-entry-year survey if more than 6 years will elapse between timber sale completion and the next compartment inventory. Stands of special concern may include

oak, jack pine, and red pine prescribed for natural regeneration, or other locally defined stand types. In most cases, out-of-entry-year surveys for special concern stands should be scheduled at TCR date + 4 years. However, natural regeneration in stands may be approved earlier than next inventory year or the calculated out-of-entry-year survey date provided that minimum standards specified in the Regeneration Survey Manual are met. If natural regeneration is determined to be inadequate, the stand will be referred to the TMS for further examination.

Artificially regenerating stands will be checked and treated within two years after the TCR is prepared and in accordance to the [Forest Regeneration Survey Manual](#). The District TMS will be responsible for conducting or coordinating artificial regeneration surveys using DNR personnel, contractors or students, and will provide program expertise to help prescribe options for corrective actions and ensure consistency. The TMS will provide information to the Unit Manager on status and results of surveys.

Survey results must be recorded in the MiFI comments and coding updates. Stands that are found inadequately stocked may be rescheduled for a follow-up natural regeneration survey if the TMS and examiner think in-growth is likely. If in-growth is not likely, the stand may be prescribed for cultural treatments to improve the success of natural regeneration, or may be artificially regenerated according to the management objective of the stand as previously described. Once the decision is made to switch to artificial regeneration, the forest MiFI Treatments database will be updated with the first step in the new treatment plan and coding will be updated with the new appropriate cover type objective, acceptable regeneration and all appropriate 'Next Step' treatments to reflect artificial regeneration. The reforestation clock is updated to reflect a two year artificial regeneration deadline. The TMS assumes responsibility for regenerating the stand once the decision to regenerate artificially has been made.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
District Supervisor / FRD	Oversee the regeneration survey process.
Unit Manager / FRD	Supervise pre-harvest inventory, determination of stand management objective, monitor regeneration, and maintenance of related records.
Stand Examiners / FRD and/or WD	Conduct pre-harvest inventory, make preliminary stand prescriptions, perform initial natural regeneration assessment, and maintain records.
Timber Management Specialist / FRD	Supervise & implement artificial regeneration activities, supervise formal artificial regeneration surveys, and provide related records to Unit Managers.
Sale Contract Administrator / FRD	Protect advance natural regeneration and start the regeneration clock.
Nursery Manager (tree improvement specialist) / FRD	Ensure that planting stock conforms to policies and legal guidelines.
Forest Health Specialist / FRD	Recommend regeneration practices that minimize forest health impacts.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists / New
MiFI Operation	Update of forest inventory records	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Regeneration survey training	Contents of Forest Regeneration Manual	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Knowledge of work instruction	All managers and supervisors with responsibility to implement this work instruction.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Reforestation Data Base	Use of local reforestation database	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
		<input type="checkbox"/> E <input type="checkbox"/> N



**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
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**Work Instruction Title:** 2.2 Use of Pesticides and Other Chemicals on State Forest Lands

**Work Area Group:** 2 – Forest Regeneration and Chemical Use

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**Purpose:** To define best management practices for use of pesticide on State Forest Lands.

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## **Work Instruction:**

1. **Prescriptions:** Minimize pesticide use to achieve management objectives. Use alternatives to chemical pesticides when they are reasonably cost effective and available and meet management objectives. When chemical pesticides are used, select the least-toxic, narrowest spectrum products labeled for the target species. On state forest lands, only products on the attached list of “DNR approved products for use on state forest lands” may be used. The list includes only products registered for use in Michigan that are not on FSC’s highly hazardous pesticide list, or that are chemicals on the highly hazardous list that the DNR may continue to use under temporary derogation. New additions to the list must be approved by the FRD Pesticide Coordinator. Follow the procedures outlined in Policy 592, Pesticide Use, Section D.3.a, for making pesticide prescriptions.
  - a. When a Forest Treatment Proposal (FTP, R-4048) requiring a pesticide application is approved, complete a Pesticide Application Plan (PAP, R-4029E). Attach the PAP to the FTP. The PAP must include personal and environmental safety precautions, potential environmental effects, and the location of any environmentally sensitive areas, including threatened or endangered species and species of special concern. The PAP must also document planned public notification methods for each application.
  - b. A single PAP may be prepared for a series of applications during a single growing season, if they all use the same treatment (products, dosage, target, application method). This will simplify the process for routine applications like poison ivy control in campgrounds, trail and pathways maintenance. Campground, trail and pathway maintenance involving ready-to-use pesticides (which do not require the applicator to have a pesticide applicators license) does not require an FTP or PAP (per Work Instruction 3.1).
2. **Operational Use of Pesticides:**
  - a. **Certification of Applicators:** All DNR personnel directly involved in the application of pesticides, other than ready-to-use pesticides as describe below, will be commercially certified applicators or as registered technicians by the Michigan Department of Agriculture and Rural Development (MDARD), Pesticide and Plant Management Division (Policy 592). Applicators that use general use, ready-to-use (RTU) pesticides are exempt from these certification requirements. RTU pesticides can be applied by non-certified personnel, as long as they are only applied in the original container consistent with the label directions. If mixing, diluting, or transferring of the product to another container is required, then the applicator must have a MDARD pesticide applicator certification. As a general rule, non-certified personnel are discouraged from participating in pesticide applications. If non-certified individuals are involved with pesticide use (including RTU pesticides) applicable Worker Protection Standards shall apply, including annual training and required training documentation.

Commercially certified applicators must be certified in commodity or site specific categories, such as the Forest, Field crop, Right-of-Way (ROW), Aquatic, or Mosquito categories. Commercially certified applicators may apply general and restricted use pesticides and supervise applications of the same by registered technicians. Registered technicians are also required to obtain category or site specific certifications, but may

only apply general use pesticides under supervision, and restricted use pesticides under direct supervision of a commercially certified pesticide applicator.

- b. Review of all PAPs: PAPs must be reviewed and approved by DNR staff certified as commercial applicators with the appropriate commodity or site-specific category certification for the work proposed (e.g., turf grass, ROW, field crops, forests, etc.) and knowledge of the subject matter attained through work experience and continuing education. (Note: A staff person cannot approve their own PAP.)
- c. Application and Evaluation: Pesticide applications are accomplished with either DNR staff or contract applicators. Upon completion of a pesticide application for all DNR authored projects, DNR staff will complete a Forest Treatment Completion form (FTC, R-4048-1) and attach a Pesticide Use Evaluation Report (PUER, R-4029-1). Note that public notification methods used must be documented on the PUER. For herbicide applications, complete Section 9 of the PUER during the growing season following treatment.

(Pesticide use at nurseries and tree improvement centers does not require use of FTP, FTC, PAP, or PUER forms.) Also, keep records in accordance with the 1992 worker protection standards for agricultural pesticides.

- d. Reporting of Pesticide Use: All applicators are required to document quantities used by product and provide this documentation on an annual basis to their TMS or regional supervisor, who will in turn submit a report to the FRD Pesticide Coordinator for SFI reporting purposes. The FRD Pesticide Coordinator will coordinate compilation of an annual report of pesticides used (including RTU pesticides) on certified state forest lands using the Annual Summary of Pesticide Use on State Forest Lands (R-4029-2). The report must be submitted to the Forest Certification Coordinator by September 14 of each year for products used during the previous one year period (September 1 to August 31). The Forest Certification Coordinator is responsible for submitting reported use to the FSC certification auditor.
- e. Pesticides used must be labeled for the intended use and used within the label requirements.
- f. Buffer strips: Riparian and other buffers must be clearly identified. Aerial applications should parallel buffer strips. Use the following table as a guide to establish buffers along riparian areas and other features.

<b>Interim Recommended Buffer Distances in Feet*</b>			
Type Feature	Application Method		
	Aerial (ft)	Ground-Based Mechanical (ft)	Ground-Based Manual (ft)
Occupied Dwellings	200	150	100
Seasonal Dwellings	100	100	100
Human Drinking Water Sources	100	50	25
Stock Water Sources	50	25	10
Active Streams, Lakes, Ponds, & Major Waterways <sup>1</sup>	100	100	100
Flowing Ditches & Intermittent Streams <sup>1</sup>	100	100	100
Farm / Crop Lands	25	10	5
Public Roadway <sup>2</sup>	15	10	5

<sup>1</sup>Buffer on water features may be zero for applications of pesticides with aquatic labels. Natural River zoning requirements must be complied with.

<sup>2</sup>Buffer distances measured from edge of road surface; if right-of-way width exceeds buffer minimum, the right-of-way takes precedence. In some instances applications may be made to the edge of the road surface with the concurrence of County Road Commission or the Michigan Department of Transportation.

\*adapted from International Paper ISO 14000 Standard

- g. Personal safety: Personal protective equipment must be used as specified on product labels. Incidents of worker exposure to pesticides must be documented on the Pesticide Application Report.
- h. Work-related pesticide illness shall be reported to: Occupational and Environmental Medicine, Michigan State University, 117 W. Fee Hall, E. Lansing, MI 48824-1315, 1-800-446-7805

- i. Emergency Procedures: Spill kits must be carried on DNR equipment and contractor's equipment whenever pesticides are being transported or applied. Absorb spills that create noticeable pool or puddles with absorbent pads. Collect contaminated absorbent material in a labeled impermeable container and store them to prevent contact with other liquids. Spill kits should be adequate for the volume of pesticides on hand. Spill kits are available from most industrial safety supply sources. Typical contents include absorbent socks, pillows or pads, protective gloves and a leak-proof bag to dispose of contaminated materials. Contact state officials to determine procedures for reporting, handling, and disposing of contaminated soil or other materials: Michigan Pollution Emergency Alerting System (PEAS): 800-292-4706.
- j. Access Control: Restrict access to all pesticide treatment areas including those treated with RTU products, for the period specified on the pesticide product label to prevent inadvertent exposure of employees and the public. Restrict access using signs, guards, locked gates, or trucks blocking the road. When treating near roadside buffers or during road maintenance applications, a "rolling road-block" may be used, whereby escort vehicles signal the spray vehicle to shut off while traffic passes.
- k. Notification (Policy 592): The need for public notification is determined at the Forest Management Unit in consultation with a DNR-certified commercial applicator. This is also reviewed by the FRD District Supervisor. The plan for notification must be documented on both the PAP and the Non-DNR Project PAP forms. The need for public notification is evaluated within each of the following categories:
  - 1) Public risk. The possibility of adverse exposure to a pesticide.
  - 2) Public concern. Perceived problems relating to the use and/or exposure to pesticides.
  - 3) Public relations and education. Used to inform the public of decision criteria and decision-making processes involved; and to involve the public in the decision-making process if appropriate.
  - 4) If need for public notification is established, notification will consist of one or all of the following:
    - Signing. Signs should include the following information: Re-entry information, pesticide used, date of application, and phone/address of Forest Management Unit. Signs will be posted at time of application and removed at the end of the field season.
    - News media. Used primarily for broad scale aerial applications, and where applications are highly visible.
    - Personal contacts. Where individuals, organizations or situations warrant extra efforts involved.
- l. Spraying state-owned ROW's and other non-DNR pesticide applications: ROW vegetation control and other pesticide applications are conducted through Use Permits (PR-1138-1) granted to the entity requesting that activity. The permit application and resulting permit must be accompanied by a Non-DNR Project PAP (PR-1138-5) that documents chemical products that will be used, rates, methods, specific areas of application and signing and notification requirements. The Non-DNR Project PAP must be reviewed and approved by a DNR certified pesticide applicator with the ROW category certification. The Forest Resources Land Use Specialist or other designee coordinates review of the permit application by the FMU Managers, and the biologists from Wildlife Division (WD) and Fisheries Division (FD) within the affected Forest Management Units (PRD is also included if a recreational facility is nearby). The local Wildlife Biologist is responsible for T&E species review by the Endangered Species Coordinator.
- m. Storage, Transportation and Disposal of Pesticide (Policy 592): Only pesticides needed for the current or next fiscal year will be purchased. The storage and transportation of pesticides shall meet all state and federal guidelines, as indicated on the label. Storage of unused and surplus pesticides is discouraged. All rinsate and residue should be applied as per label instructions. If necessary, unused pesticide must be disposed of in a manner consistent with labeling.

**Pesticides Approved for Use on State Forest Lands** (revised using FSC chemical list dated January 20, 2010)

Product common name(s)*	Active ingredient	CAS #	Use status
Accord, Rodeo, Roundup, & other glyphosate formulations	glyphosate	38641-94-0	Use is allowed.
Amine 400 2,4-D	dimethylamine salt of 2,4-dichlorophenoxyacetic acid (2,4-D)	2008391	Use is allowed.
Arsenal, Habitat	imazapyr, isopropylamine salt of imazapyr	81334-34-1; 81510-83-0	Use is allowed.
Cellu-treat	disodium octaborate tetrahydrate	12280-03-4	Use is allowed.
Dimension	dithiopyr	97886-45-8	Use is allowed.
Dimlin	diflubenzuron	35367-38-5	May only be used in conformance with conditions in approved FSC pesticide derogation, expires 01/05/2020.
Envoy	clethodim	99129-21-2	Use is allowed.
Escort	metsulfuron-methyl	74223-64-6	Use is allowed.
Esplanade	indaziflam	950782-86-2	Use is allowed.
Garlon 3A	triclopyr triethylamine salt	57213-69-1	Use is allowed.
Garlon 4	triclopyr-2-butoxyethyl ester	64700-56-7	Use is allowed.
Hyvar	bromacil	314-40-9	Use is allowed.
Krenite	fosamine ammonium	25954-13-6	Use is allowed.
LV400 2,4-D Weed Killer Solvent Free	2,4-Dichlorophenoxyacetic acid, isooctyl (2-ethylhexyl) ester (2,4-D 2-EHE)	1928434	Use is allowed.
Merit	imidcloprid	138261-41-3	Temporarily allowed until 10/31/2016, pending the effectiveness of the new FSC HHP list and consideration of the DNR's joint derogation application
Milestone	aminopyralid tri-isopropanolammonium	566191-89-7	Use is allowed.
Oust	sulfometuron methyl	74222-97-2	Use is allowed.
Plateau	imazapic	104098-49-9	Use is allowed.
Rotenone	rotenone	83-79-4	Temporarily allowed until 10/31/2016, pending the effectiveness of the new FSC HHP list and consideration of the DNR's derogation application
Sporax	sodium tetraborate decahydrate	1303-96-4	Use is allowed.
Tordon 101	2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt Picloram triisopropanolamine salt	18584-79-7 6753-47-5	Use is allowed
Tordon RTU	Picloram: (4-amino-3,5,6-trichloropicolinic acid), triisopropanolamine salt + 2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt	6753-47-5 18584-79-7	Use is allowed.
Transline	clopyralid monoethanolamine salt	57754-85-5	Use is allowed.
Tree-age	emamectin benzoate	155569-91-8	Temporarily allowed until 10/31/2016, pending the effectiveness of the new FSC HHP list and consideration of the DNR's joint derogation application.
Velpar	hexazinone	51235-04-2	Use is allowed.
Zenivex E20 or E4 RTU	etofenprox	80844-07-1	Use is allowed until

Product common name(s)*	Active ingredient	CAS #	Use status
			10/31/2016 pending the effectiveness of the new FSC HHP list.
Kontrol® 4-4	permethrin	52645-53-1	Use allowed <u>only</u> upon approval of DNR derogation application.

\*Note: The list of common names for chemicals is not comprehensive.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD  DNR – Wildlife  DNR – Fish  DNR – Law  DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Timber Management Specialist / FRD, or other designee with commercial applicator certification	Review FTP's, write PAP's, approve PAP's authored by others for woody and herbaceous plants (may not approve PAP's authored by themselves), supervise herbicide applications, complete PEUR. . Submit data for annual SFI Pesticide Application report.
Land Use Specialist/ FRD or other District designee	Coordinate reviews of use permits for utility right-of-way herbicide maintenance.
Forest Health Specialist/ FRD, or other qualified/certified staff	For forest pathogen and insect control: Review FTP's, write PAP's, approve PAP's authored by others (may not approve PAP's authored by themselves), supervise applications including contract applications, complete PEUR
Pesticide applicator / DNR	Apply or administer contract application of silvicultural herbicides, write PAPs and track and report on quantities used for each chemical.
Other involved staff	Assist in the handling, storage, transportation, access management, or treatment evaluation of pesticide treatments.
Pesticide Coordinator/ FRD	Approve new additions to the list of chemicals meeting FSC criteria and labeled for use in Michigan. Coordinate FSC pesticide derogation applications. Approve PAP's authored by others (may not approve PAP's authored by self). Complete Annual Summary of Pesticide Use on State Forest lands (R-4029-2).
FRD Forest Certification Coordinator	Submit annual summary of pesticide use to the FSC certification auditor.
FRD Unit Manager	Review and approve use permits within their FMU.
FRD District Supervisor	Review and approve use permits across FMU boundaries.
FRD Field Coordinator	Review and approve use permits across FRD District boundaries.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
Certified Pesticide Applicator	All DNR staff directly involved in pesticide application must have a valid State of Michigan pesticide application certification.	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Worker Protection Training	DNR staff involved in the handling, storage, transportation, access management, or evaluation of pesticide treatments must be certified or have federally mandated Worker Protection Training.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Knowledge of Work Instruction	All managers and supervisors with direct responsibility to approve pesticide use.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- FRD Pesticide Use Policy Number 592, October 26, 1999
- Personal protective equipment: <http://www.epa.gov/oppfead1/safety/workers/equip.htm>
- Worker Protection Standards, basic principles: <http://www.epa.gov/oppfead1/safety/workers/principi.htm>
- Worker Protection Standards, full document: <http://www.epa.gov/pesticides/safety/workers/PART170.htm>
- Approved FSC pesticide derogation documents, December, 2009

**Monitoring:**

Upon completion of a pesticide application, a Forest Treatment Completion form (R-4048-1) and an attached Pesticide Use Evaluation Report (R-4029-1) is completed by the staff person responsible for the treatment.

**Records:**

- Forest Treatment Proposal (R-4048) filed in the Forest Management Unit Offices
- Forest Treatment Proposal Completion Report (R-4048-1) filed in Forest Management Unit Offices
- Pesticide Application Plan (R-4029) filed with the FTP in the Forest Management Unit Offices
- Pesticide Use Evaluation Report (R-4029-1) filed with the FTP in the Forest Management Unit Offices
- Non-DNR Pesticide Application Plan (PR-1138-5) filed in Forest Management Unit Offices
- Annual Summary of Pesticide Use on State Forest Lands (R-4029-2) Worker protection training records
- Use Permit (PR 1138-1)

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Instruction Title:** 2.3 Integrated Pest Management and Forest Health

**Work Area Group:** 2 – Forest Regeneration and Chemical Use

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**Purpose:** To describe procedures to protect forest health using Integrated Pest Management (IPM) and wildfire suppression.

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**Work Instruction:**

1. Responses to specific forest health issues like gypsy moth, emerald ash borer, and oak wilt are managed by the Forest Management Unit with technical direction and advice from the Forest Health Management Program Leader in cooperation with the Forest Health Monitoring Program Leader, USDA-FS, Michigan Department of Agriculture and Rural Development, other state, and federal agencies as needed.
2. Fire protection and management is accomplished under the FRD Protection Program area including wildfire suppression, prescribed burning, and assistance to local fire departments.
3. Insects and disease. The following silvicultural guidelines to reduce timber losses to insect and disease using non-chemical methods are derived from a combination of forest health research, common practice, Timber Sale specs (VMS, 2005) and silvicultural guidelines addressing a range of forest health issues.
  - a. Use slash restrictions in red pine stands that are at risk for bark beetle infestations. Sale condition 5.2.15 is an example.
  - b. Specify seasonal operating restrictions on timber sales as per sale condition 5.2.13.
  - c. Do not leave a residual jack pine overstory over younger jack pine in areas where jack pine budworm is a potential hazard.
  - d. Plan harvests to avoid or reduce losses to insect outbreaks such as pine bark beetle (*ips pini*), spruce budworm or jack pine budworm.
  - e. Avoid planting red pine where sweet fern is present to minimize problems from Saratoga spittlebug.
  - f. Attempt to match cover type species selections to the site using habitat types (Burger and Kotar, 2003) as a guide to site suitability.
  - g. Schedule sanitation harvests out of entry year as need is and documented by Forest Health Specialists for insect problems such as emerald ash borer in ash or two-lined chestnut borer in oak.
  - h. On the subject of use of non-native tree species for reforestation FRD Policy 241 states, "Natural native species will be preferred whenever satisfactory survival and growth can be achieved. Non-native species and hybrids may be considered when there is no indication that they will displace other native flora more aggressively than would the native alternative species used for reforestation." (MDNR, 1999)
  - i. Direct control measures of forest pests are coordinated by the Forest Health Management Program Leader. Observations of forest pests are reported using the Forest Health Field Report (Form R-4029-3) whenever they are observed.
4. Chemical use. Control measures using chemical pesticides or bio-control agents are to be prescribed and applied under the supervision of a Forest Health Management Program Leader or his designee. This applies to controls of insect pests or invasive exotics. (see Chemical Use Work Instruction)

5. Invasive exotics.
  - a. "Invasive non-native plants will not be used on public lands, mandated restoration projects or recommended for use on private lands" (DNR 2001).
  - b. Consideration should be given to the potential spread or increase of invasive exotic species in the planning and operational stages of all treatments. FRD Forest health specialists will provide direction and advice to the FMUs in regard to the spread and control of invasive exotic species. Non-chemical methods will be the preferred method used to control and /or decrease invasive exotic species whenever possible. Chemical methods may be used alone or in combination with non-chemical methods as needed, (see Work Instruction 2.2 – Use of Pesticides and Other Chemicals on State Forest Lands).
  - c. In the conduct of field operations FRD staff shall follow FRD Guidelines for Decontamination Methods by Risk Level for Terrestrial Activities and Equipment.
  
6. Genetically Modified Organisms (GMOs).
  - a. Use of genetically modified organisms is not allowed on certified land in the State Forest system. Not allowing use of genetically modified organisms applies to all organisms, including trees.
  - b. Genetically improved organisms (e.g., Mendelian crossed) are not considered to be genetically modified organisms, and may be used.

**Scope:** (All State Forest Land and Affected Divisions):     State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Recreation

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Forester, Forest Technician / FRD	Prescribe and administer harvest treatments.
Timber management specialist / FRD	Review harvest prescriptions. Conduct regeneration treatments.
Wildlife biologist, Wildlife Technician / WD	Review forest treatments, prescribe other specific habitat manipulations, may conduct treatments.
Forest Health Specialist (Forest Health Monitoring Program Leader & Forest Health Management Program Leader/ FRD	Provide forest health training and coordination of responses to pest outbreaks, including invasive exotic plant species. Coordinate with Michigan Department of Agriculture. Provide program specific roles.
Unit Manager / FRD	Oversee application of this work instruction at the forest management unit level
Fire officer / FRD	Implement fire protection program and conduct prescribed burns.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists / New
Forest health update	Annual forest health updates and workshops conducted by Forest Health Specialists. (Forest Health Monitoring Program Leader & Forest Health Management Program Leader)	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- MDNR, 1999. FRD Policy 241, Reforestation
- Forest Health Field Report, R-4029-3
- Burger, T and Kotar, J. 2003. "Guide to Forest Communities and Habitat Types of Michigan".
- VMS, 2005. MDNR, VMS timber sale management software, sale specific conditions.
- Work Instruction 2.2 – Use of Pesticides and Other Chemicals on State Forest Lands
- DNR Position Statement For Native Plants In Resource Management, 05/24/01

**Monitoring:**

- Forest health monitoring
  - Pest surveys
  - Emerald Ash Borer monitoring
  - Beech Bark Disease monitoring
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**Records:**

- Forest Treatment Proposal (R-4048) filed in the Forest Management Unit Offices
  - Forest Treatment Proposal Completion Report (R-4048-1) filed in Forest Management Unit Offices
  - Forest Health Highlights Report  
[http://www.michigan.gov/documents/2004ForestHealthHighlights3\\_116430\\_7.pdf](http://www.michigan.gov/documents/2004ForestHealthHighlights3_116430_7.pdf)
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**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Area Group:** 3 – Best Management Practices (BMP's)

**Work Instruction Title:** 3.1 Forest Operations

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**Purpose:** To ensure consideration of major environmental factors in all operations on State Forest lands.

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**Work Instruction:**

1. Operations on the State Forests lands will protect:
  - a. Water-quality,
  - b. Rare species (threatened, endangered or special concern plant or animal species)
  - c. Special sites (cultural, ecological, geological, and historic),
  - d. Site productivity
  - e. Recreational values
  
2. Intrusive Activities

Operations review: FRD, WD, PRD, and FD will review and approve all intrusive activity performed or permitted by any DNR division on State Forest lands at appropriate level(s), and these approvals will be documented. An intrusive activity is a site disturbing activity impacting soil and/or vegetation that may potentially influence water quality, rare species, special sites (cultural, ecological, geological, and historic), or site productivity. (Maintenance of Department roads within a cleared right of way (i.e. grading, culvert replacement, beaver dam removal, improvement of an existing road bed, removal of down trees or brush, and mowing of grass) is not considered intrusive by the Department.). Where timely, proposed intrusive activities will be reviewed using the annual compartment review process. The R4048 Forest Treatment Proposal (FTP) shall be used to document FRD, WD, PRD, FD, and LED approvals of intrusive activities. Completion of intrusive activities will be documented by completion of a R4048-1 Forest Treatment Completion Report, and where appropriate updating of MiFI Stand and Treatment databases, including creation of any 'Next Step' treatments. Treatments which are multi- year in nature will have partial treatments reported to the Land Administering Division manager on an annual basis. Documentation of completed FTPs will be kept in the compartment file, and forest inventory records will be updated annually.

General operations and maintenance of existing recreational facilities such as state forest campgrounds, boating access sites, pathways, trails, and parking areas will not require an FTP. By definition the boundary whereas an FTP would not be required is the hazard tree strike distance outwards from any developed recreational facility or site. Examples of activities not requiring an FTP include: hazard tree removal, mechanical brushing, use of ready to use herbicides, general erosion control, grading, replacement or repair of existing facilities, and placement of informational signs, kiosks and fee collection pipes.

Staff shall comply with the following Intrusive Activity Review and Approval Process on certified State Forest Lands:

<b>Intrusive Activity</b>	<b>FRD Approval</b>	<b>WD Approval</b>	<b>FD Approval</b>	<b>PRD Approval</b>	<b>Other Review/Approval</b>
ALL Timber Sale Proposals in which treatments are approved at compartment review	Unit Manager				Copies of proposals will be sent to FRD TMS, WD Biologist, FD Unit Manager, and PRD Trail Specialist (if recreational facility is within 500 feet)
ALL Timber Sale Proposals in which treatments were not approved at compartment review	Unit Manager, District Supervisor	Approval via Post Review Procedure in chapter 7 of the Operations Inventory manual	Approval via Post Review Procedure in chapter 7 of the Operations Inventory manual	Approval via Post Review Procedure in chapter 7 of the Operations Inventory manual - only includes treatments within 500 feet of a SFCG or on a pathway or trail	Follow DNR Resource Assessment Procedure checklist, IC 4123 OI Chapter 7 notification
Forest Treatment Proposals (FTP) for treatments approved at compartment review. (Multiple treatments in decade only require one time approval with annual Completion reports)	Unit Manager	Wildlife Biologist if wildlife initiates FTP			Treatments involving federal funds require review by the WD Federal Aid Coordinator (see IC 4123) Copies of proposals will be sent to FRD TMS, WD Biologist, FD Unit Manager, and PRD Trail Specialist (if recreational facility is within 500 feet)
(FTP) Beaver dam removal (Exception: FTP is not required to remove beaver dams immediately threatening a Department Road or facility.)	Unit Manager	Wildlife Biologist	Unit Manager		LED District Supervisor approval Hand removal of beaver dams does not require a DEQ permit. The use of explosives that disrupts the stream bottom or releases excess sediment downstream requires a DEQ permit. Mechanical removal that does not disturb the bottom, banks, or release excess sediments does not require a DEQ permit. Mechanical removal that disturbs the bottom, banks, or releases excess sediments requires a permit.

<b>Intrusive Activity</b>	<b>FRD Approval</b>	<b>WD Approval</b>	<b>FD Approval</b>	<b>PRD Approval</b>	<b>Other Review/Approval</b>
Forest Treatment Proposals (FTP) for treatments not approved at compartment review. (Multiple treatments in decade only require one time approval with annual completion reports)	Unit Manager - 14 calendar day response period or inferred approval, District Supervisor - 7 additional calendar day response period or inferred approval	Approval via Post Review Procedure in chapter 7 of the Operations Inventory manual	Approval via Post Review Procedure in chapter 7 of the Operations Inventory manual	Approval via Post Review Procedure in chapter 7 of the Operations Inventory manual – only includes treatments within 500 feet of a SFCG or on a pathway or trail	Follow DNR Resource Assessment Procedure checklist, IC 4123, Chapter 7 notification, Copies of proposals will be sent to FRD TMS.
Leases and Operational agreements involving recreational facilities within State Forest Land	Unit Manager, If FRD is the LAD – District Supervisor	Wildlife Biologist, If Wildlife is the LAD – Wildlife Supervisor.	Unit Manager if surface water is within 500 feet or if Fisheries is the LAD.	Unit Supervisor/Manager	Leases and operational agreements must be approved by the LAD Division office. LED District Supervisor must be copied.
Well Site Surface Use Permits issued per Department Procedure	Unit Manager	Wildlife Biologist - 14 calendar day response period or inferred approval	Unit Manager if surface water is within 1320 feet - 14 day response period or inferred approval	Unit Supervisor/Manager if located within 500 feet of a State park, SFCG, or designated pathway or trail	On leases that are more than 5 years old, MNFI, & Archeological Concerns data base must be checked.
Forest Road Construction /Improvement (Internal and external)	Unit Manager, District Supervisor, Field Coordinator	Wildlife Biologist	Unit Manager if surface water is within 500feet	PRD Unit Supervisor/Manager and Trail Specialists if within 500 feet of a recreational facility.	Follow DNR Resource Assessment Procedure checklist, IC 4123, and DNR Policy and Procedure 26.04-04 Use of State Owned Lands Administered by the DNR. Use PR1138 Use of State Land Application Form.
Road and Public Utility Easements	According to Department Procedure	DNR Procedure	DNR Procedure	DNR Procedure	See DNR Procedure at: <a href="http://www.michigan.gov/dnr/0,4570,7-153-10368_11797-224597--,00.html">http://www.michigan.gov/dnr/0,4570,7-153-10368_11797-224597--,00.html</a>
Fishery Management ( Use FTP or other appropriate form) -Stream bank restoration -Manual removal of fish -Lake reclamation-chemical	Unit Manager when adjacent to or on state forest land	Wildlife Biologist	Unit Manager, State Level review		LED District Supervisor, Follow DNR Resource Assessment Procedure checklist, IC 4123, DEQ permit is required for dam removal Copies of proposals will be sent to

<b>Intrusive Activity</b>	<b>FRD Approval</b>	<b>WD Approval</b>	<b>FD Approval</b>	<b>PRD Approval</b>	<b>Other Review/Approval</b>
-Dam, removal, modification, or construction -Sand traps					PRD Trail Specialist if impacts a SFCG, pathway or trail
Forest Road/ Trail Closure Proposal	Unit Manager, District Supervisor, Field Coordinator	Wildlife Biologist, Wildlife Supervisor	Unit Manager	Unit Supervisor/Manager if impacting a SFCG, pathway, or trail	Follow DNR Resource Assessment Procedure checklist, IC 4123, LED District Supervisor,  Must conform with WI 3.3, Road Closures, Tribal notification for permanent or seasonal closures within 1836 Treaty area (90 days in advance),
Designated Recreation Trail Development Proposal (R 1862E)	Unit Manager, District Supervisor, Field Coordinator	Wildlife Biologist, Wildlife Supervisor	Unit Manager	Unit Manager	Follow DNR Resource Assessment Procedure checklist, IC 4123, LED District Supervisor, Divisions and State Trails Coordinator
Water Access, SFCG, Pathway, or trail on or adjacent to State Forest Land: -Site development -Site expansion	Unit Manager, District Supervisor	Wildlife Biologist, Wildlife Supervisor	Unit Manager	Unit Manager	Follow DNR Resource Assessment Procedure checklist, IC 4123* for new construction, LED District Supervisor, DEQ permit required for dredging PRD Planner (WIP)

\*IC 4123 requires staff to: 1) Check for conformance with goals and objectives in management plans and guidance documents; 2) Check MNFI data base for rare species; 3) Check ARCHEOLOGICAL CONCERNS data base for significant cultural resources; 4) Consultation/Approval among DNR Divisions; 5) Notification/Consultation with tribes for activities of significant concern; 6) Appropriate input from stakeholders; 7-12) these items deal with implementation of approved treatments and are not listed here.

### 3. Event and Non-Event Use Permits

PR1138 / PR1138-1 Event and Use of State Lands Application Forms shall be used for event and non-event use permits on certified State Forest Lands. For purposes of review and approval of event and non-event use permits, FRD is the LAD for Campgrounds, pathways, trails, snowmobile and ORV trails and PRD is the LAD for rail trails. When an event or non-event use permit application is received, the receiving LAD unit will notify the other interested divisions and the application will be processed as described below. Approvals by the listed divisions are required prior to issuing a permit. If comments or conditions are received, the permit issuer is responsible to include said conditions. PRD Trail Specialists are the key liaisons between FRD and PRD. The Trail Specialist should be contacted when questions arise about who is responsible or needs to be involved in a review of an event or non-event use permit application.

#### Review and approval of event and non-event use permit applications shall comply with the following:

Location Request	Permit type	Issued By	Reviewed By	Comments
Rail Trails	Event Permits & Non-Event Use Permits	PRD Unit Manager or Recreation Specialist	FRD Unit Manager, WD Biologist, LED District Supervisor, FD Unit Manager, if within 500 feet of a lake or stream	If the event is within the boundary of the State Forest, then <b>the final permit must always be provided to FRD for certification purposes.</b>  Note: A MOU for managing Rail Trails on or adjacent to SF land is being developed
Designated Campgrounds, Boating Access Sites and Trails (snowmobile, pathways, ORV, ski, equestrian)	Event Permits	PRD Unit Manager or Recreation Specialist	FRD Unit Manager, WD Biologist, LED District Supervisor, FD Unit Manager, if within 500 feet of a lake or stream	This applies to events and uses located entirely within a designated facility.
Designated Campgrounds, Boating Access Sites and Trails (snowmobile, pathways, ORV, ski, equestrian)	Non-Event Use Permits	FRD Unit Manager	PRD Unit Manager or Recreation Specialist, WD Biologist, LED District Supervisor, FD Unit Manager, if within 500 feet of a lake or stream	
State Forest Land (other than that listed above)	Event Permits located entirely on SF Land  Non-event use permits on SF land except designated sites	FRD Unit Manager	WD Biologist, LED District Supervisor, FD Unit Manager, if within 500 feet of a lake or stream  PRD Unit Manager or Rec specialist, if within 500 feet of a recreational facility	
Any recreational event that crosses non-DNR ownerships or multiple DNR LAD's	Event Permits	PRD Rec. Specialist	FRD Unit Manager, WD Biologist, LED District Supervisor, FD Unit Manager, if within 500 feet of a lake or stream	

#### 4. Water quality

The operating division will be responsible for protecting water quality, and will document potential impacts as part of the operations approval process. The current Michigan DNR/DEQ *Sustainable Soil and Water Quality Practices on Forest Land (2009)* will be the standard guide for water-quality protection in State Forest operations. The manual will be used as a guide for such operations, and appropriate professional expertise will be used to adjust the recommendations of the manual to ensure protection of water quality as defined by relevant laws and regulations. Timber sale contracts and road and trail construction or maintenance contracts will require compliance with BMP standards. Soil and Water Quality manuals will be provided to all such contractors. A spill kit, or access to sufficient absorbent material to clean up spills, is required at sites with State-owned vehicles having hydraulic equipment or auxiliary fuel tanks.

#### 5. Species & ecological site protection

All forest operations must be reviewed for potential conflicts between rare species and proposed forest operations. Guidance for this review is provided in IC 4172, 'Rare Species Protection Approach and Resources for DNR Staff on State Forest Lands.' For forest operations that are not reviewed as part of the Forest Inventory and Compartment Review process or a DNR permit review that includes the DNR Endangered Species Program, the operating division will have the lead responsibility for completing and documenting the review process, including coordination with the DNR endangered species coordinator for the protection of rare species and special ecological sites. As part of the operations review process, the responsible division will check the Natural Heritage Database in the GDSE ensuring that the Inventory Status tool indicates that a check was performed and in the locked comment box whether or not any species were identified and what was done to ensure there were no impacts to those species. This check should be documented on the Timber Sale Checklist and placed in the compartment files.

When treatments/intrusive activities are propose out-of-year-of-entry the treatment sponsor must document in the proposed request that the rare species review has been completed, if any species were identified as having the potential to be negatively affected and how the treatment may have been modified to avoid any impacts to those species.

In the conduct of field operations FRD staff shall follow approved FRD Guidelines for Decontamination Methods by Risk Level for Terrestrial Activities and Equipment.

#### 6. Cultural, geological and historic sites

The Office of the State Archeologist (OSA) and/or the State Historic Preservation Office (SHPO) are the State authority for identifying and protecting cultural, geological and historic sites. For forest operations that are not reviewed by the OSA or SHPO the operating division will take the lead in ensuring the protection of these as part of the operations approval process. Identified special sites must be reported to OSA/SHPO per existing DNR procedure. Incorporation of Tribal concerns will also be considered per the Tribal work instruction.

#### 7. Site Productivity

Forest Operations shall strive to maintain or minimize the loss of forest and soil productivity, avoid excessive soil disturbance, and modify soil management techniques if soil degradation occurs.

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**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – PRD

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**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
All Department Staff	Obtain approvals for all intrusive and non-intrusive operations from FRD, WD, PRD & FD.
All Department Staff	Identify , report, and protect sites of special concern
All Department Staff	Remedy BMP non-conformances

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
BMP training	Identification of BMP water quality issues & their remedies.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Training on T&E species and special ecological sites	Identification and protection of T&E species and of sites of special concern	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Training on special cultural, historic, geologic sites	Identification and protection of sites of special concern	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- Federal: Section 319 of the Clean Water Act, Coastal Zone Management Act of 1972 as amended in 1996.
- State: Natural Resources and Environmental Protection Act of 1994; part 91, Soil Erosion and Sedimentation Control; and part 301, Inland Lake and Streams.
- DNR Policy: Sale and Removals of Timber, policy and procedure No. 251 as approved March 1, 2000.
- FRD Policy 251A Sales and removal of timber visual management,
- FRD Policy 251 Sales and removal of timber
- DNR Operational Guidelines:
  - DNR/DEQ Sustainable Soil And Water Quality Practices On Forest Land IC4011 (Rev. 02/24/2009)
  - Evaluating Riparian Management Zones on State Lands
  - Vegetative Management Systems (VMS)
  - Timber Sales Administration handbook.
  - Intrusive Activities Review and Approval Process (Management Review Decision)
  - State Forest Resource Assessment Procedure, IC 4123
  - Rare Species Protection Approach and Assessment Guidelines, IC 4172

**Monitoring:**

- FTP Proposal and completion reports
- Timber sale proposals and completion reports
- Land Use permits (special use permits, well site permits, seismic permits, etc.)
- Endangered species permits

**Records:**

- FTP completion reports
- Land use permit records
- Timber sale proposals
- MiFI compartment and stand information
- MNFI Compartment Remarks
- SHPO Compartment Remarks
- Timber sale inspection forms
- Endangered species permits

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Instruction Title:** 3.2 Best Management Practices Non-Conformance Reporting Instructions

**Work Area Group:** 3 – Best Management Practices (BMP)

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**Purpose:** To encourage, capture, and respond to public and internal reporting of BMP problems.

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**Work Instruction:**

1. DNR employees are required – and other citizens and visitors are encouraged – to watch for and report BMP problems in State Forests. Reporting responsibilities include water quality and site productivity issues. Employees should endeavor to monitor problem-prone areas on a systematic basis.
2. Public reports should be received and recorded at any DNR office and directed to the local FRD office for archiving and response. Telephone contact numbers and FMU web addresses are available to private citizens on the DNR internet. Information that applies to other than State Forest land should be referred to the appropriate landowner or other responsible party.
3. The SFI Michigan Statewide Implementation Committee maintains a toll free telephone number (1-800-474-1718) for use by anyone desiring to report issues or lodge a complaint regarding a program participant's conformance with the SFI Standard.
4. DNR employees must report problems using a non-conformance report form. This information will be sent to the FRD Unit Manager who is responsible for the site. The Unit Manager is responsible for recording and tracking all BMP problems reported. Information reported should include:
  - a. Date of observation
  - b. Name of reporting person
  - c. Phone number and/or email of reporting person
  - d. Weather conditions at time of observation
  - e. Exact location of the problem, with latitude and longitude, if possible
  - f. Name of the wetland water body affected, if available
  - g. Name of the road or trail involved, if available
  - h. Nature of problem
  - i. Seriousness of the original problem (urgent, high, medium, low)
  - j. Immediate action taken to correct the problem, if any
  - k. Remaining seriousness of the problem (urgent, high, medium, low, none)
  - l. Suggested additional action needed
5. This information should be entered into an office or FMU-level database in a format that includes a unique identifier to each report and which can be summarized at the State-level for budgeting, planning, and management review purposes. This database should also include fields for estimating the cost – as well as for tracking the funding and completion – of needed repairs. Records should remain in the database indefinitely. This database should be GIS-compatible and stand examiners should report BMP problems using this work instruction and refer to this database for including BMP problems on compartment maps and prescribing treatments for consideration in the compartment review process.

6. The Unit may employ procedures to close roads temporarily due to weather events, public safety, or seasonal use (see road closure work instruction). The Unit may also employ procedures to close roads permanently (see road closure work instruction).

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Parks

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
DNR Staff finding BMP problem	Record problem on non-conformance report
Staff taking report from public or other staff	Record problem on non-conformance report
Unit Manager / FRD	Ensure that reporting occurs and maintenance of tracking database

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
BMP training	identification of BMP problems & their remedies; include BMP recording training	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
BMP recording	For all staff that may be receiving a telephone report	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- Federal: Section 319 of the Clean Water Act, Coastal Zone Management Act of 1972 as amended in 1996.
- State: Natural Resources and Environmental Protection Act of 1994; part 91, Soil Erosion and Sedimentation Control; and part 301, Inland Lake and Streams.
- DNR Policy: Sale and Removals of Timber, policy and procedure No. 251 as approved March 1, 2000.
- DNR Operational Guidelines: DNR/DEQ Sustainable Soil and Water Quality Practices on Forest Land, 2009.
- DNR Riparian Management Zone guidelines.
- 
- DNR Rutting Guidelines

**Monitoring:**

- Best Management Practices Resource Damage Reporting Form
- BMP Tracking Data base, or Tracking Spreadsheet

**Records:**

- Best Management Practices Resource Damage Reporting Form
- BMP Tracking Spreadsheet

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
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**Work Instruction Title:** 3.3 Best Management Practices--Road Closures

**Work Area Group:** 3 - Best Management Practices (BMPs)

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**Purpose:** To provide direction regarding the closure of Department roads.

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### **Work Instruction:**

**Use of the term “Road” is broad in meaning and includes Department controlled “Forest Roads” and other Department controlled roads on certified Department land that do not meet the definition of “forest road” per Part 324.811, NREPA. From Part 324.811: “Forest Road” means a hard surface road, gravel, or dirt road, or other route capable of travel by a 2-wheel drive, 4 wheel conventional vehicle designed for highway use, except an interstate, state, or county highway.**

#### **1. Emergency Road Closures:**

An emergency (immediate) road closure, which may be permanent or temporary in nature, may be needed when there is a public safety and/or a significant environmental, natural resources, or legal concern. These types of concerns include, but are not limited to: deep rutting (which impacts environmental function) or the potential for deep rutting, movement of significant soil from the roadbed, sediment flow into a wetland or water body, flooding, failure of a bridge, culvert failure that results in wetland or water body sedimentation, threats to threatened or endangered species, and threats to cultural or historic sites.

The Director of the Department of Natural Resources (DNR) may issue a Land Use Order of the Director (LUOD) for emergency road closure. Staff should use the following procedure:

- a. A DNR employee who identifies an existing road meeting at least one of the above criteria for emergency road closure should immediately inform their supervisor and inform the Land Administering Division (LAD) Unit Manager.
  - 1) The LAD Unit Manager (normally the FRD Unit Manager) will immediately evaluate the reported road condition, and if there is a public safety, or significant environmental, natural resources, or legal concern the problem will either be immediately mitigated or the road will be immediately closed. Posting is required, and in addition closure may be achieved by placing barricades, berms, gating, signing, etc. The decision for non-action or the action chosen must also be reported to the supervisor of the person who reported the situation and to the LAD District Supervisor.
  - 2) The LAD Unit Manager will immediately contact their respective District Manager and report the situation. At the same time, the LAD Unit Manager will complete and sign the Forest Road Checklist, R4503 and Forest Road Closure Review form, R4504 and submit to the LAD District Manager. (Note: additional approvals/sign offs are not needed for the emergency closure.) If the LAD Unit Manager does not take action, and another Division supervisor feels they should, the matter should be submitted to the LAD District Manager, with evidence and justification for recommendations.
  - 3) If the LAD District Manager determines that the emergency road closure is not needed, the LAD Unit Manager will open the road and work with the other affected resource division managers to identify an alternative method to address the problem.

- 4) If the LAD District Manager approves closure, then the LAD Unit Manager will route the Forest Road Checklist (R 4503) and Forest Road Closure Review form (R 4504) to other resource divisions for comment and approval. The LAD District Manager will provide LAD Lansing Land Use Specialist with written notification of the closure decision including a map, the completed Forest Road Checklist (R 4503), and the completed Forest Road Closure Review form (R 4504). The LAD Lansing Land Use Specialist will prepare a draft LUOD and Director's memo and submit for approval, per Department procedure. If the situation is corrected before the LUOD process has been completed, then completion of the LUOD process not required. If a LUOD is issued, the road shall remain closed until the situation is corrected and rescission of the LUOD is initiated.
- 5) To rescind an Emergency Road Closure LUOD (one without a built-in time line), the LAD Unit Manager will request that the LAD District Manager initiate action to rescind the order. If approved, the LAD District Manager will submit a request to the LAD Lansing Land Use Specialist to rescind the LUOD.
- 6) The LAD Lansing Land Use Specialist will advise the LAD District Manager of the status of the rescission.

## 2. Non-Emergency "normal" Road Closures:

Any DNR employee identifying an existing road under the administration of the Department which they believe should be temporarily, seasonally, or permanently closed should submit a proposal to the FRD Unit Manager. The FRD Unit Manager, after determining that a Department controlled road should be closed temporarily, seasonally, or permanently, will proceed with the following:

- a. Complete the Forest Road Checklist (R 4503) and Forest Road Closure Review form (R 4504). Roads may be grouped by compartment or geography to streamline the process to evaluate more than one road at a time.
- b. Seek review and approval through the Compartment Review Process, or other public review process. Note: road closures in out-of-entry-year compartments can be evaluated at any annual compartment review. If due to time constraints the proposal cannot use the compartment review or other public review process, the request for closure will be sent directly to the LAD District Manager, and supervisors in the chain of command will be advised.
- c. The LAD Unit Manager will route the Forest Road Checklist, R4503 and Forest Road Closure Review form, R 4504 to other resource divisions for comment and approval, and seek a decision by the LAD District Manager.
- d. If there is a lack of consensus at the Unit Level, or if a Division response is lacking on the road closure review form, the LAD District manager will consult with the appropriate Division supervisor and determine if consensus is achievable. The LAD District manager shall consult with the LAD Field Coordinator where there is a lack of consensus.
- e. If the LAD District Manager approves closure, then the LAD District Manager will provide LAD Lansing Land Use Specialist with written notification of the closure decision including a map, the completed Forest Road checklist (R 4503) and the completed Forest Road Closure Review form (R 4504). LAD Lansing Land Use Specialist will prepare a draft LUOD and Director's memo and submit for approval, per Department procedure. If the proposed road closure falls within the **2007 Inland Consent Decree**<sup>1</sup> area, the tribal road closure notification process shall be followed. LAD Lansing Land Use Specialist will notify the DNR Tribal Coordinator to make required tribal notifications.
- f. If the LAD District Manager denies closure, the written decision is returned to the LAD Unit Manager and initiating Division.
- g. To rescind a non-emergency "Normal" Road Closure LUOD, the LAD Unit Manager will request that the LAD District Manager recommend rescission of the order. If approved, the LAD District Manager will submit a request to LAD Lansing Land Use Specialist to rescind the LUOD.

<sup>1</sup> **2007 Inland Consent Decree:** The decree provides specific requirements in regard to access to state forest lands within a geographically defined treaty area. Section 20.2 Access, item (f): “The MDNR shall notify and consult with the Tribes before permanently closing an approved access road or trail. In the event that the MDNR establishes a program for seasonal closures of approved access roads or trails, the MDNR shall notify and consult with the Tribes before implementing any such seasonal closure.” Appendix L, Section 14.5: “The State shall notify the Tribes and the United States in writing as soon as possible of any proposal to permanently close an approved access road or trail, and in any event shall notify the Tribes and the United States at least 90 days before approving any such proposal.”

**Scope:** (All State Forest Land and Affected Divisions):     State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Recreation

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
DNR staff desiring road closure	Collect information and prepare road assessment checklist and forest road closure review form. Report BMP non-conformances on the Resource Damage Report (RDR) data base and inform supervisor of road closure recommendation.
LAD District Managers	Review, approve/disapprove, and forward proposed road closure recommendations, request Land Use Order of the Director (LUOD) for road closure.
LAD Lansing Staff	Prompt processing of road closure proposals. Notify tribal coordinator of need for tribal notifications under the 2007 Inland Consent Decree.
Unit Manager/ LAD	Evaluate roads for closure, make emergency closures. Complete Forest Road Closure Review form and Forest Road checklist. Make recommendation at Compartment Review. Seek review and approval of road closure recommendations by other divisions.
DNR Tribal Coordinator	Make required 90 day notifications per 2007 Inland Consent Decree.
DNR Director	Issue and/or rescind LUOD for road closures.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
Non-emergency road closures	Understanding of roles at various levels to improve flow of information and decision making efficiency for closing existing Department roads	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Emergency road closures	Understanding of roles at various levels to expedite closure of Department roads in the event of severe weather, public safety issues, or Best Management Practices problems.	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- DNR Policy and Procedure 01.10.03, Development and Establishment of NRC and Director’s Orders
- Federal Law section 319 of the Clean Water Act of 1972 as amended 1987, state law part 31, part 91, of PA 451.
- Public Act 451 of 1994, Part 811 324.81101e and Part 811 324.81101f.
- Sustainable Soil and Water Quality Practices on Forest Land, February, 24, 2009, IC 4011 and as updated or replaced
- 2007 Inland Consent Decree, Section 20.2 Access, item (f), Appendix L, Section 14.5, and Appendix L, Section 18.1

**Monitoring:**

- RDR data base and RDR forms (R 4801)
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**Records:**

- Water Quality Management checklist (R4501)
  - Forest Road Closure Review (R 4504)
  - Forest Road Checklist (R 4503)
  - Compartment Review Notes
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**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Area Group:** 5 - Research

**Work Instruction Title:** 5.1 Coordinated Natural Resource Management Research

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**Purpose:**

Coordinate the conduct and management of natural resource management research for DNR

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**Work Instruction:**

1. The research coordinators from each Division or Bureau must compile a list of research projects, a list of on-line links or contact persons for research projects completed during the previous fiscal year, and a summary of internal and external research expenditures during the previous year. This information will be used for preparation of an annual Research Summary to be published by June 1 of each year and for preparation of the Sustainable Forestry Initiative Annual Report.

The annual Research Summary will include:

- a. A list of in-house, collaborative and contracted research (defined as research using DNR staff time on a project, Department Funding and/or permits issued for research related access to DNR land) that advances the concept of sustainable forestry. The summary will consider research within forested landscapes related to, but not limited to:
    - 1) Ecological health, productivity, processes and dynamics;
    - 2) Human uses, values, preferences and dynamics;
    - 3) New markets for forest products;
    - 4) Socioeconomic trends;
    - 5) Chemical efficiency, chemical use rate, and integrated pest management;
    - 6) Characteristics and dynamics of water budgets, hydrologic routing, sediment dynamics and water quality;
    - 7) Ecological dynamics at the riparian, land-water interface;
    - 8) Effectiveness of timber management at multiple scales: management area, ecoregion, state.
    - 9) Effectiveness of wildlife management at multiple scales; landscape, forest stand, etc.;
    - 10) Effectiveness of fisheries management at multiple scales; watershed, segment, lake, etc.;
    - 11) Conservation of biological diversity (at multiple scales); and
    - 12) Effectiveness of Best (land) Management Practices for conservation, rehabilitation and enhancement of ecosystem functions and components;
    - 13) Interactions among forest, wildlife and fisheries management activities.
  - b. A list of research projects completed in the previous year, with identification of a contact person and a link to a web site if possible.
2. The SFI Annual Report requires reporting of Internal and External Research Funding. This is defined as the amount of funding the DNR provided in the previous year for forest-related research within the organization (internal) and outside the organization (external) through grants, in-kind assistance, cooperatives, etc. Internal research funding includes salaries for forest-related research staff. While it is difficult in many instances to identify to which category research funding should be allocated, use best judgment as to the primary intent of the given research project. If you find it impossible to allocate funding to the categories listed in the SFI Annual Report, list the total funding you provided in the "other" category and note as such.

3. The Department Research Coordinators (for FRD, PRD, WD and FD) will meet on an annual basis to jointly review the summaries and discuss DNR research needs, opportunities, and implementation. The FRD Forest Certification Planner will facilitate the review and timely update of the Research Summary by June 1<sup>st</sup> of each year and will make the summary available to all DNR staff by posting on the DNR intranet. The Department Research Coordinators for each division will provide required funding information to the FRD Forest Health, Inventory, and Monitoring Unit Manager by March 1 of each year who will incorporate data into the SFI Annual Report.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Parks

**Responsibility and Role:**

<b>Job Title/Division</b>	<b>Role</b>
Research Coordinator/Wildlife	Conduct annual review of division research needs and activities
Research Coordinator/FRD	Conduct annual review of division research needs and activities
Research Coordinator/Fisheries	Conduct annual review of division research needs and activities
Research Coordinator/Parks	Conduct annual review of division research needs and activities
FRD Forest Certification Planner	Facilitate updating of the research summary
FRD Forest Certification Coordinator	Prepares and submits the SFI Annual Report to SFI
DNR Field Staff	Report newly discovered or permitted research to the Land Administering Division Research Coordinator

Note: FRD Research Coordinator is delegated by the Forest Resources Section Leader as either the Forest Health, Inventory and Monitoring Unit Leader or the Planning & Operations Unit Leader.

**Training/Skills:** (Those required to accomplish work instruction)

<b>Item</b>	<b>Brief Description of Skill or Course</b>	<b>Exists/ New</b>
Maintenance of proficiency	Familiarity with sciences supporting natural resource management (physical sciences, forestry, wildlife and fisheries sciences, human dimensions)	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Participation in budgeting process	Familiarity with DNR budgeting process	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Compilation and summary of Division research efforts and participation in annual summary of DNR research	Familiarity with all DNR research efforts: in-house, university, collaborative efforts with other agencies/entities	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- NRC Policy 2002 – Environmental Protection and Economic Development (3-11-1993)
- Wildlife Division, Research Project Proposal and Review Process.
- Michigan Statewide Wildlife Research Program, Application for Federal Assistance, W-147-R, Amendment 3, October 1 2004.
- Wildlife Division, Federal Aid to Wildlife Restoration Study Performance Reports and Final Reports
- Fisheries Division, Draft Policy and Procedure for Research Project Proposal and Review Process.
- Fisheries Division, Early Drafts Research Agenda for each major theme area (e.g., Inland Lakes Theme, Rivers and Streams theme).

- Fisheries Division, Research Section Calendar.
  - Fisheries Division, Federal Aid to Sportfish Restoration Research Grants; Five-year Project Proposals; and Annual Research Study Proposals and Revisions, and Study Final and Performance Reports.
  - Fisheries Division, Policy and Procedure for Publication of Technical Documents.
  - SFI-4.2.2.Indicator Assessment Form (for FRD)
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**Monitoring:**

- A review of the research coordination process will occur as part of the annual management review process.
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**Records:**

- Annual report of DNR research activities.
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**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Area Group:** 6 - Recreation and Education

**Work Instruction Title:** 6.1 Implementing Public Information and Educational Opportunities on State Forests

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**Purpose:** To define public educational opportunities associated with State Forest Management.

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**Work Instruction:**

1. DNR personnel will respond to requests for technical information on State Forest management in a timely fashion.
2. Freedom of Information Act Requests will follow DNR Administrative Procedures Series 19.
3. DNR personnel will involve the Office of Communications regarding issues of high public interest.
4. DNR will ensure public information and educational opportunities take place through participatory processes in State Forest management by conducting :
  - a. Natural Resource Commission meeting
  - b. Forest Management Advisory Committee meetings
  - c. Open Houses
  - d. Compartment Reviews
  - e. Public information meetings on special projects and initiatives.
  - f. Holding public hearings as required.
  - g. Meeting with citizen advisory committees as appropriate.
  - h. Establishing public input websites as needed.

5. FMU Websites

Each FMU manager is responsible for working with the FRD Web Master to develop and maintain their FMU web page which will contain general statements about the FMU's relative uniqueness, forest activities (e.g. recreational opportunities), history, and/or other social/economic/biological characteristics, and links to maps and reports for the current and archived year-of-entry compartments. No information will be posted without review by the FMU manager or their designee.

6. Per NRC Policy 1005, attention to citizen questions, inquiries, complaints, and requests shall be considered a principal duty by employees at all levels. DNR personnel shall promptly follow up on concerns and complaints from the public regarding forest management by:
  - a. Directly resolving the complaint if possible,
  - b. Directing to appropriate specialists or managerial levels if necessary, and
  - c. Following the compartment review decision appeals process.
7. DNR staff will periodically conduct and evaluate surveys of public values relating to State Forest management.

8. The DNR maintains and where appropriate establishes partnerships with external public and private management groups via memoranda of understanding, cooperative agreements or other written instruments. Examples include:
- USDA Forest Service
  - Adopt-A-Forest
  - Project Learning Tree
  - Michigan Arbor Day Alliance
9. The Department of Natural Resources conducts public educational outreach through a variety of methods including:
- Printed materials
  - Posters
  - Workshops
  - Formal programs
  - Web sites
  - Information booths/displays
  - Other events
  - Interpretive signing
  - Participation at festivals, and other special day celebrations.
10. The DNR will support private land programs promoting forest stewardship practices and initiatives such as: the Cooperative Forest Management (CFM) program, Land Owner Incentive Program, Forest Stewardship Program, Urban and Community Forest Program, Tree Farm Program and forest certification programs including Sustainable Forestry Initiative and Forest Stewardship Council.
11. The Office of Communications' Chief conducts regular meetings, on at least a monthly basis, that includes the DNR Press Secretary and Division Communication Network Representatives, to discuss educational outreach, external communications, program accomplishments and overall program direction and priority.

**Scope:** (All State Forest Land and Affected Divisions):     State Forest Land  Other: Office of Comm.  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Parks

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Communications Representative/OC	Manage significant information requests and educational programs.
Division Communications Network Representatives/DNR Divisions	Manage significant information requests.
Freedom of Information Act Request Coordinator/DNR	Manage Freedom of Information Act Requests
FRD Web Master/Liaison	Work with Units and Certification Resource Analyst to develop and manage web pages.
All Staff/DNR	Respond to information requests in a timely manner.

**Training/Skills:**(Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
	Public speaking/presentation skills	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
	Communications technology	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
	Meeting facilitation skills	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- NRC Policy 1005 – Public Involvement in Activities of Department
- Social Impact Considerations and Public Involvement Processes Work Instruction
- DNR Administrative Procedures Series 19, Freedom of Information Act (FOIA)
- OI Manual, esp. Chapter VII, “Compartment Review”

**Monitoring:**

- Open House/Compartment Review process.
  - Department website tracking.
  - Monthly reporting of Parks Visitor Center activity
  - Gathering of public feedback at informational meetings.
  - Tracking media coverage of DNR activities or issues.
- 

**Records:**

- Open House and Compartment Review sign-in sheets.
  - Website tracking information
  - Database of “log of complaint” letters.
  - Sign-in sheets for educational outreach programs as needed.
  - Inventory of educational materials.
  - Program schedules and group contact information for Parks Visitor Centers.
  - Cooperative Forest Management monthly activity reports.
  - Cost-sharing activities with private forest owners who manage lands cooperatively with the Department
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**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

DRAFT     FINAL

**Date of Draft Document:**

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**Work Instruction Title:** 6.2 Integrating Public Recreational Opportunities with Management on State Forest Lands

**Work Area Group:** 6 – Education and Recreation

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**Purpose:** To develop, operate, maintain and promote an integrated recreation system that operates within the auspices of the state forest management planning program.

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**Work Instruction:**

1. The DNR is committed to comply with all applicable Federal, State, and local laws and regulations.
2. State forest campgrounds, pathway trailheads, pathway corridors, and boating access sites located on the state forest are administered by the DNR Parks and Recreation Division, but remain within the scope of certification. Recreational opportunities on State Forest lands shall be integrated with forest management programs. Ongoing communications with Forest Unit Managers, Park and Recreation Managers & Supervisors, and District Supervisors also assure recreational facility development, enhancements, or reductions are integrated and made compatible with forest operations. Public and Tribal participation regarding recreational facilities is encouraged during the Compartment Review process and other meetings held in the State.
3. The DNR staff works with public interests, local units of government, user groups and DNR resource and administrative divisions to identify recreational needs and impacts.
  - a. DNR complies with statutory provisions for providing and planning development and maintenance of recreational facilities within the state and on State Forest lands and they are carried out through specific planning documents that guide the statewide recreation and trails programs.
  - b. DNR staff works with sponsors and local units of government to administer grant funds for trails. These funds are dispersed through a process of grant project application and review. Applications review is conducted by department staff, based on criteria guidance provided by public advisory groups to the programs.
  - c. Some of the public advisory boards or work groups that the DNR works with are: Michigan Snowmobile and Trails Advisory Council, Equine Trailways Subcommittee (ETS), Non-motorized Advisory Workgroup (NAW), Off-Road Vehicle Advisory Workgroup (ORVAW), Snowmobile Advisory Workgroup (SAW) and Michigan State Parks Advisory Committee.
  - d. DNR resource divisions conduct reviews for resource impacts related to any proposed recreational project on state forest lands.

4. The DNR manages recreational uses to accommodate various demands. Recreational activities on state forest lands include but are not limited to:

Recreational Activity	Management Responsibility
Hunting	WD
Trapping	WD
Fishing	FD
Camping/Dispersed	FRD
Camping/Designated Campground/ Group	PRD
ORV trails	PRD
Snowmobile trails	PRD
Pathways (cross-country skiing, hiking; back packing, biking, and mountain biking)	PRD
Designated boating access sites, Kayak/canoe tours	PRD
Equestrian trail riding	PRD
Field Trials with dogs, dog training, and dog tracking	FRD & WD
Wildlife viewing, birding tours	WD
75 Scenic tours (e.g., waterfalls, scenic sites, spring wildflowers, fall color tours)	FRD
Geological tours	FRD
Wild fruit, nut, mushroom gathering	FRD
Medicinal plant gathering	FRD
Aesthetics and spirituality – passive recreation, unique recreational opportunities i.e. Wilderness, Wild and Natural Areas	FRD, WD
Extreme sports/endurance sports	FRD/PRD
Commercial operations and events	FRD/PRD

*WD = DNR Wildlife Division; FD = DNR Fisheries Division; FRD = DNR Forest Resources Division*

5. Resource Impacts as a result of recreational use are reported, monitored, and addressed.
- Impacts on campgrounds and trails are reported, monitored and addressed.
  - Impacts on lands adversely affected are reported, monitored, and addressed. (e.g. excessive ORV damage. Refer to monitoring section for other key examples)
6. DNR evaluates recreational facilities and ensures that changes are made when needed.
- Open/closure of campgrounds/facilities and/or public land areas is recommended when determined by the monitoring process
  - Additional facilities are recommended when determined necessary.

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**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: Office of Communications  
 DNR – FRD  DNR – Wildlife  DNR – Fish  DNR – Law  DNR – Parks

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

<b>Job Title/Division</b>	<b>Role</b>
Trail Specialist/PRD	Coordinate the planning, review by all divisions, and monitoring of trail recreation and opportunities. Ensure that on the ground work by trail sponsors meets Department standards and specifications.
FRD Staff	Assist with development and maintenance of public recreation facilities and opportunities
Manager/Supervisor, Field Offices/PRD	Plan, develop, monitor, and maintain state forest campgrounds, boating access sites and facilities.
Regional Landscape Design Planners/PRD	Plan the development of recreational facilities.
/Volunteer Coordinator/PRD	Implement public outreach and volunteer activities associated with recreational opportunities on State Forest
Information & Education Coordinator/WD	Produce Hunting & Trapping Guides
Fisheries Biologist/FD	Produce Fishing Guides
State Trails Section Chief /PRD	Approve the planning and development of designated state trail recreation facilities and opportunities
Interpretive Manager/OC	Manage Michigan and Fishing Heritage Center
Unit Manager/FRD	Coordinate with PRD staff on planning and operation of public recreation opportunities at the management unit level.
Conservation Officer/LED	Enforce state fish and game laws as provided in annual hunting and fishing guides, ORV, snowmobile and marine guides. Administers Safety Training programs.
ADA Liaisons/ DNR	Enforce and review ADA law and requirements

**Training/Skills:** (Those required to accomplish work instruction)

<b>Item</b>	<b>Brief Description of Skill or Course</b>	<b>Exists/ New</b>	
	Public Speaking	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	American's with Disabilities Act	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Hazard Tree Identification	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Exotic Plant Identification	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Snowmobile/ATV Operator's Training	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Chain saw safety	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Heavy Equipment Training	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Snowmobile Grants Training	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Communications software (Power Point, Word, Excel)	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Arc View	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	BMP Training	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Commercial Driver's License	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Soil Erosion/Sediment Control Certification	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N
	Lift-truck Certification	<input checked="" type="checkbox"/> E	<input type="checkbox"/> N

## References:

- Off-Road Vehicle (ORV) Trail and Route Maintenance Handbook (IC-1991);
  - Annual guides for hunting & trapping, fishing, camping, snowmobiling, ORV's, and marine;
  - Public Act 451 of 1994;
  - American with Disabilities Act (ADA), P.L. 101-336.
  - Planning Documents:
    - 1) Guiding Principles and Strategies - Wildlife Division Strategic Plan 2010-2015 – Provides goals, objectives and strategies for wildlife-related recreation.
    - 2) Parks and Recreation Division 2009-2019 Strategic Plan – Provides strategic goals, objectives, actions and tasks for camping, boating, and trail recreation.
    - 3) 2013-2017 Fisheries Division Strategic Plan – Provides strategic goals, objectives and strategies for fishing recreation.
    - 4) Michigan Comprehensive Trail Plan 2013-2018, April 2013 – Provides for statewide motorized and non-motorized trails goals.
    - 5) State Comprehensive Outdoor Recreation Plan 2013 – Provides for statewide recreation priorities.
    - 6) Governor's Blue Ribbon Report 2012 – Blue Ribbon Panel report to the Governor on statewide recreation goals.
    - 7) Michigan Tourism Strategic Plan 2012 to 2017 – Provides goals and objectives to the growth and vitality of Michigan's tourism industry.
    - 8) Forest Recreation Plan – June 1995 – Provides for non-motorized forest recreation
    - 9) Michigan Off-Road Vehicle (ORV) Management Plan, 2008 – Provides a guide to ORV trails/routes/ and scramble areas planning and management.
    - 10) Snowmobile Plan – Annual updates VIA grant sponsor application.
    - 11) Assessment of Recreation and Trails – July 1999 – Provides forest recreation program overview and projected needs to support public recreation demands.
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## Monitoring: Occurs at Three Levels

1. Forest Management Unit Level:
  - Active management practices (i.e., prescriptions) conducted by WD/FD/FRD are monitored subsequent to implementation via the Forest Treatment Proposal process. WD and FD also conduct game and non-game population surveys for management purposes such as harvest regulation and inventory.
  - T&E species reviews
  - Inventory data collection.
  - Inspections of Land Use Permits.
  - Campground inspections.
  - Inspections of boating access sites and associated facilities.
  - Road inspections
  - Compartment Review/Open House process.
  - Trail inspection reports
  - BMP non-compliance reporting
2. District / Eco-regional Level:
  - Public values expressed as a set of indicators to gauge management actions; also
  - Issues specific to landscape scales are addressed at this level (e.g., road closures).
  - Enforcement of state laws and Department administrative rules through hunting & trapping, fishing, individual species, ORV, snowmobile, and marine guides.
3. State Level: databases maintained at each division central office which compile monitoring activities at the management unit level.

## Records:

### Hardcopy:

- Forest Treatment Proposals (R-4048) and completion reports (R-4048-1E).
  - ORV trail monitoring (PR-1990-2 and PR-1990-3) and maintenance (PR-1990-1).
  - Snowmobile trail monitoring and maintenance; no standard form, with the exception of weekly grooming reports (PR-1855).
  - Land Use Permits (PR-1138).
  - State Forest campground inspections (R-4117).
  - Boating access/facilities inspections; Grant-in Aid/PRD (R-3024-A, R-3024-B, R-3024-C, R-3024-D).
  - Road projects/bridges (project reporting form; PR-4288). There is no form for road inspections.
  - Hazard tree inspections (form in draft).
  - ORV/snowmobile trail proposal form (R-1862-E).
  - Land acquisition (R-4077-E).
  - Annual species harvest reports
  - Wildlife survey reports
  - BMP non-compliance reports
-

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
Forest Certification Work Instruction**

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**Date of Draft Document:**

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**Work Instruction Title:** 6.3 SFI Involvement and the Michigan State Implementation Committee

**Work Area Group:** 6 - Recreation and Education

**Purpose:** To define the Department's involvement with the SFI State Implementation Committee (SIC)

**Work Instruction:**

1. The FRD Chief will appoint a representative to serve on the SFI State Implementation Committee; additional staff will attend SIC meetings as appropriate. Attend semi-annual meetings of the Michigan State Implementation Committee and staff participation in subcommittees including:
  - Loggers training subcommittee
  - Inconsistent practices subcommittee
  - Communications (public outreach) subcommittee
  - Annual Report Subcommittee
2. Use the SFI inconsistent practices reporting system (800-474-1718) to address concerns raised by public and external stakeholder groups. Identify a communications process specific to handling inquiries and complaints.
3. Report annually to the SFI Program on compliance with standards. Maintain appropriate level of record keeping and documentation as required by Michigan State Implementation Committee.
4. The SIC FRD representative will be responsible to communicate decisions and policy changes from the SIC to the rest of the department.

**Scope:** (All State Forest Land and Affected Divisions):     State Forest Land  Other: Office of Comm.

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Parks

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Division Chief / FRD	Assign Department representative to SIC
Department SIC representative / FRD	Participate on the SIC
Others as assigned	Participate on SIC subcommittees
Forest Certification Specialist/ FRD	Prepare annual reports, participate on SIC committees

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
	Familiarity with SFI standards and SIC procedures	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- 2005-2009 SFI Standard
  - Management Review Process Work Instruction
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**Monitoring:**

- SFI annual compliance report
  - DNR representative communications on SIC
- 

**Records:**

- SIC meeting minutes
- SFI annual compliance report

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
Forest Certification Work Instruction

DRAFT     FINAL

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Work Area Group: 7 - Integrated Implementation and Contracting

Work Instruction Title: 7.1 Timber Sale Preparation and Administration Procedures

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**Purpose:** To provide direction to field staff on preparing timber for sale and on administration of timber sale contracts.

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## Work Instruction:

### 1. Timber Sale Preparation

**Timber Sale Proposal Checklist:** Complete the Timber Sale Proposal Checklist which will indicate the sale conditions to include in the Timber Sale contract. Ensure timber sale specifications match forest inventory prescriptions.

### 2. Timber Sale Contract Inspection Process

Use the following guidelines to record timber sale inspections, including the initial pre-sale meeting and ongoing site inspections, and to complete the final Timber Sale Contract – Field Inspection Report.

a. **Pre-Sale Meeting:** Conduct a pre-sale meeting with the stumpage purchaser and/or logging crew to review provisions of the contract and to discuss any special features that require care or attention. Use Form R-4050 Timber Sale Contract – Field Inspection Report to:

- 1) Record pre-sale meeting date, attendance and method (on-site, telephone or in the office)
- 2) Record name of the Sustainable Forestry Education (SFE) trained foreman and verification of status as a Qualified Logging Professional (has core training and annual continuing education<sup>4</sup>).
- 3) Document any special features that require care or attention and any specific conditions not covered in the timber sale contract such as initial access requirements or landings.

b. **Ongoing Inspections:** For active contracts a record of all timber sale inspections, site visits, telephone conversations and other related observations and notes will be kept on a Timber Sale Contract Field Inspection Report, R-4050 for the duration of the open contract. At a minimum, documentation should include:

- 1) Dates of inspections, visits, or other communication.
- 2) Payment unit start/finish dates.
- 3) Name of person recording remarks.
- 4) Annual checks of active contracts (for each calendar year) for SFE continuing education<sup>4</sup>.
- 5) Agreements or details not specified in contract specifications such as landing locations, placement of skid-trails, etc.

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<sup>4</sup> The annual SFE continuing education verification requirement is in effect for those timber sale contracts advertised or issued as of January 1, 2016

- 6) Document “not acceptable” or substandard performance along with corrective actions as requested on R-4050. Unacceptable performance must be followed up with a letter or personal contact with the contractor to explain conditions and required corrective actions.
  - 7) Document steps taken to correct “not acceptable” conditions.
  - 8) All timber sale inspection reports will be kept as part of the timber sale record.
  - 9) Schedule of Field Inspections: The Unit must visit timber sale areas often enough to maintain up-to-date knowledge of activity. Inactive sales: check occasionally during life of contract. Active sales (sales where on-the-ground work is occurring): weekly inspections are recommended, though more frequent inspections may be necessary.
3. **Final Inspection:** A final timber sale inspection will be completed for each timber sale contract and will be documented on form R-4050 when a sale is completed, closed or cancelled. Completion of the timber sale shall also be recorded in MiFI with an update of the Stand and Treatment databases, including the creation of any appropriate ‘Next Step’ treatments. The final timber sale inspection report (front page of R-4050) will be attached to the Timber Sale Completion Report. A copy of the entire timber sale inspection report will be kept as part of the timber sale record.
- a. There must be thorough documentation of “not acceptable” conditions and corrective actions during the term of the contract.
  - b. Summary comments on performance can be documented under “Overall Comments/Evaluation”.
4. **Additional instructions** for evaluating some of the items on the Timber Sale Contract - Field Inspection Report follow:
- a. **BMPs.** The following items on the Timber Sale Inspection Form (R-4050) relate to BMPs. Follow the guidelines in the BMP manual (Sustainable Soil and Water Quality Practices on Forest Land, 2009) when evaluating these features as follows:
    - 1) Landings. Be sure they are located away from streams and other water bodies. Fueling, maintenance and repair should only be conducted on properly located landings except in emergencies.
    - 2) Oil Spills and Cleanup of Area. Check that producers have an oil spill kit on-site. Ensure that any spills have been cleaned up according to the requirements of the General Sale Condition 5.6.1. Additionally the site should be kept clean of trash generated by the harvest operations.
    - 3) Soil Protection. Check to be sure that operations affecting soil erosion, compaction and rutting are in compliance with contract specifications.
    - 4) Road construction, Road Maintenance, Location of Skid Trails and Roads. These three items on the form should be used to check that road construction, road maintenance and the location of roads and skid trails, including road closures, are in compliance with contract specs and the BMP manual. Careful attention should be given to these features to assure that they are not causing negative site impacts such as rutting, erosion or runoff into streams, lakes and ponds.
    - 5) BMP Applications. This is a general BMP category to consider anything related to BMPs that has not specifically been addressed in the previous items. Restricting operations in riparian management zones (RMZs) and avoiding vernal pools are some examples of issues that should be checked here.
  - b. **Safety.** DNR encourages safe working conditions and safety training for contractors and stumpage purchasers within the scope of our legal responsibility and authority. The following personal protective equipment (PPE) checklist, and the Training Requirements for Loggers (section c), apply to timber sale contracts only. Recommendations for small receipt permits for timber removal and firewood permits are covered under information circulars.
    - 1) **Safety Requirements.** Stumpage purchasers are required by contract to abide by all safety laws including MIOSHA safety standards. Compliance with the safety standard is required whether or not MIOSHA has jurisdiction under the circumstances. The following PPE table, consistent with MIOSHA standards, applies to all contractor and DNR personnel on all open timber sale contracts. The table, in conjunction with the explanations that follow, is to be used to assess worker safety on each timber sale.

**Personal Protective Equipment Checklist**

<b>Activity</b>	<b>Leg Protection</b>	<b>Hard Hat</b>	<b>Safety Boots/ Shoes</b>	<b>Eye Protection</b>	<b>Face Screen</b>	<b>Hearing Protection</b>	<b>Gloves</b>
Chainsaw operator	X	X	X		X*	X	
Logging or road construction equipment operator		X	X	X		X	
Truck driver**		X	X	X		X	
Landing worker (repair person, deck attendant)	If using chainsaw	X	X	X		X	As needed
Supervisor		X	X	X		As needed	
DNR staff	If using chainsaw	X	X	X	If using chainsaw	As needed	As needed

\* When the Face Screen is used, no other eye protection is required.

\*\* When outside the truck on the logging job.

- **HARD HAT.** Approved hard hats shall be worn by all persons present on the logging operation including log truck drivers and anyone on or near the woods or landing areas. Hard hats are not required while operators are within an enclosed cab that meets MIOSHA standards for rollover protections and brush guards.
- **EYE PROTECTION**
  - Safety glasses, face shields or goggles shall be worn by all workers involved in activities where wood chips, sawdust, flying particles, foreign objects (twigs, limbs, branches) may injure, puncture, scratch or damage workers' eyes.
  - Eye protection for equipment operators where cab protection or a windshield is not adequate.
- **HEARING PROTECTION.** Hearing protection shall be worn by all workers operating chainsaws or woods equipment. All workers in the immediate area of any mechanized equipment shall use hearing protection.
- **SAFETY FOOTWEAR.** Workers shall wear foot protection, such as\* heavy-duty logging boots, which are waterproof or water-repellent and which cover and provide support to the ankle. Workers shall wear protective footwear when working in areas where an employee's feet are exposed to a danger of foot injuries due to falling or rolling objects or a danger of objects piercing the sole of the shoe. Workers who operate a chain saw must wear foot protection that is constructed with cut-resistant material that will protect the employee's foot against contact with a running chain saw.  
\*The "such as" means including but not limited to.
- **CHAINSAW SAFETY EQUIPMENT.** Workers who use chainsaws must wear leg protection made of cut-resistant material, such as ballistic nylon.
- **HAND PROTECTION.** An employee on a logging operation who is working with a wire rope or sharp object that may cause an injury to the hand shall wear gloves of a suitable type. The gloves shall provide adequate protection from puncture wounds, cuts, and laceration.

- 2) **Safety Administration.** Personal protective equipment identified in Section 1 must be properly used by all contractor personnel regardless of MIOSHA jurisdiction. DNR staff on open State timber sale contracts must properly use personal protective equipment identified in Section 1 after any on-the -ground contractor work has begun, and until the sale contract has been closed. (Proper use means proper selection and safe use of personal protection equipment as defined by the MIOSHA General Industry Safety Standards Part 51. Logging and Part 33. Personal Protective Equipment).

If improper use of PPE by one or more contract employees is observed, the following steps will be taken. Multiple observations of improper PPE use on one inspection visit will be counted as one violation.

- If unsafe practices are observed and not immediately remedied, all operations on the contract are to be suspended until the unsafe practice is resolved. The unsafe practice must be noted on a Timber Sale Inspection form (R-4050). The forest management unit tracks violations on each contract.
- If unsafe practices are observed during 7 separate field visits on a single contract, the contract will be terminated. Contact the Timber Sales Specialist regarding the process to terminate a contract. The Timber Sales Specialist will also track contract terminations.
- If 4 or more contracts under the same purchaser are terminated for unsafe practices within a 12 month period, the purchaser will be placed on the no-bid list for one year.

3) **Referrals to MISOHA.** MIOSHA is interested in receiving referrals when a contractor with one or more employees has health or safety hazards that are violations of MIOSHA rules and the contractor will not voluntarily address the issue(s). When a hazard is identified and corrected, there is no need to refer to MIOSHA. MIOSHA is also interested in receiving referrals when a serious accident, such as an amputation or severe laceration occurs. The Timber Sale Specialist will submit all referrals.

**c. Training Requirements for Loggers.** Stumpage purchasers, their employees, their contractors, and their subcontractors shall have adequate training, sufficient for their roles and responsibilities. Purchasers are required to have their State timber sales closely supervised by a staff person that is a Qualified Logging Professional (QLP) as defined by the Michigan Sustainable Forestry Initiative Implementation Committee (SFI IC), or has a certificate of completion for QLP training per the Wisconsin Forest Industry Safety and Training Alliance (FISTA). “Closely supervised” means “overseen with adequate knowledge of the concerns and current status of an operation to be able to provide immediate control over any process that may threaten compliance with BMPs and other contract terms”.

The identity of the QLP staff person and the current status of their QLP designation will be verified at the pre-sale meeting with the sale administrator, documented on the Timber Sale Inspection form, and checked annually thereafter after January 1 of each calendar year using the sources listed below. A current QLP designation is signified by a ‘green’ or ‘yellow’ status in the Michigan SFI IC SFE electronic database.

Timber sales sold by other State of Michigan agencies are exempt from the requirement for SFE trained supervision. In those cases, DNR professional foresters will provide the supervision as defined above.

#### Logger Training Requirements

SFI Training Standard	Contacts
Michigan <ul style="list-style-type: none"> <li>• Certificate of Completion for SFE training as a QLP</li> </ul>	<ul style="list-style-type: none"> <li>• Check the Michigan SFI IC SFE electronic data base at <a href="http://sfimi.org">http://sfimi.org</a> (logon address and passwords are available from the Forest Certification Coordinator).</li> <li>• For additional follow-up on SFE training records, contact the Forest Certification Coordinator or Scott Robbins with the Michigan Forest Products Council at 517-853-8880.</li> </ul>
Wisconsin <ul style="list-style-type: none"> <li>• Certificate of Completion for Qualified Logging Professional training</li> </ul>	For FISTA training records contact Amy Marquardt, 800-551-2656.

d. **Aesthetic Considerations** that were noted in the Pre-sale Checklist and/or specified in the contract should be evaluated for compliance.

- e. **Fire Prevention.** Operations relating to contract provisions that apply restrictions for the purpose of reducing fire risks should be evaluated.
- f. **Wildlife Considerations.** Evaluate any stand level habitat (snags, coarse woody debris, mast tree, conifer retention, threatened or endangered species or ecologically unique feature) provisions of the contract. These are also noted in the Pre-sale Checklist.
5. The Remarks section should also be used to evaluate compliance for anything else that is specified in the contract and not directly addressed in the items above. Examples would be historical or geologically unique features, tribal resources or forest health risks.
6. Copies of inspection forms for completed contracts are to be filed with the Timber Sale Contract in the Unit office.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_

DNR – FRD       DNR – Wildlife       DNR – Fish       DNR – Law

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Foresters, Forest Technicians / FRD	Complete Pre-sale checklist and Timber Sale Inspection Form. Follow-up with purchaser to correct non-conformances. Supervise timber sale operations on sales sold to other State of Michigan agencies (see sec II, 4, c, Training requirements for loggers).
Timber Sale Administrator	Responsible for inspection of timber sales and documentation of observations. Comply with work instruction. Follow up with purchaser to correct non-conformances as needed.
Unit Manager / FRD	Responsible for overseeing use of forms and compliance to work instruction. Review inspection reports for accuracy and completeness. Follow up with purchaser to correct non-conformances as needed. Ensure timber sale specifications match MiFI prescriptions.
Wildlife Biologists and Technicians / WD	Report non-conformances or other issues to unit manager.
Fisheries Biologists and Techs / FD	Report non-conformances or other issues to unit manager.
Conservation officers / LED	Enforce state law and address violations.
Timber Sales Program Leader / FRD	Responsible for monitoring to determine the number and frequency of safety offenses and insuring that proper administrative actions are taken.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists / New
Timber sale administration	Timber Sale Administration FRD Training Course	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- Policy 251, March 2000, Sales and Removal of Timber
- Michigan DNR/DEQ, 2009. Sustainable Soil and Water Quality Practices on Forest Land.
- MIOSHA STD-1135, Dept of Labor, General Industry Standards, Part 51. Logging, as amended 6/17/1996
- MIOSHA STD-1126, Dept of Labor, General Industry Standards, Part 33. Personal Protective Equipment, as amended 5/14/1997
- MIOSHA notification web address: [http://www.michigan.gov/cis/0,1607,7-154-11407\\_30453-93835--,00.html](http://www.michigan.gov/cis/0,1607,7-154-11407_30453-93835--,00.html).
- Sustainable Forestry Education: <http://wildfire.for.msu.edu/extension/sfe.htm>
- Within-Stand Retention Guidance, IC 4110
- Forest Certification Green-Up Guidelines, 6-1-16
- Michigan Woody Biomass Harvesting Guidance

**Monitoring:**

- Unit managers perform QA/QC function, Inspection forms (R-4050), Timber sale completion reports
  - SFE training data contact Scott Robbins, 517-853-8880
  - FISTA training records contact Amy Marquardt, 800-551-2656.
- 

**Records:**

- Timber sale inspection form, timber sale contract, VMS Customers database
- Pre-sale Checklist (new),
- Timber Sale Inspection Form (R-4050)
- Timber Sale Completion Report (Division Timber Sale Computer Program)

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Instruction Title:** 7.2 Legal Compliance and Administration of Contracts

**Work Area Group:** 7 - Integrated Implementation and Contracting

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**Purpose:** To articulate DNR's performance standards for administering service contractors on State Forest land or facilities. Timber sale contracts are also covered in the Timber sale checklist and sale administration procedures work instruction.

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**Work Instruction:**

**1. Legal Requirements:**

- a. Statement of commitment. MDNR will comply with all applicable Federal, State, and local laws and regulations including those that govern employment practice and worker safety.
  - 1) Policy and procedures reflect Federal and State legal requirements available at [http://www.michigan.gov/dmb/1,1607,7-150-9131\\_9347-29674--,00.html#2400](http://www.michigan.gov/dmb/1,1607,7-150-9131_9347-29674--,00.html#2400). Further direction is provided via these work instructions.
- b. Legal and other Requirements shall be reviewed through the annual Management Review process.
- c. Protection from illegal activities.
  - 1) Illegal activities are to be reported by employees who observe them to the local unit manager at the earliest possible opportunity. Illegal activities include but are not limited to the following: illegal ORV use, unauthorized cutting of trees or firewood, unauthorized land use, encroachment or trespass, or unauthorized burning.
  - 2) Forest ownership boundaries are to be clearly established before any timber harvesting or other management activity is conducted adjacent to neighboring owners.

In addition to these legal requirements the following measures are taken to help meet our obligations to personal and environmental safety.

**2. Contract Fairness:**

- a. Equal access, equal opportunity, fair labor laws
  - 1) Michigan's Equal Employment Opportunity Plan provides fair employment and training opportunities to DNR employees
  - 2) DNR Administrative Procedure 13.01-01 - DNR Procurement Quick Reference Guide and DNR Administrative Procedure [13.01-02 - Acquisition of Commodities and Services Implementing Executive Directives 2004-8, 2004-9](#) assures that all vendors have equal opportunities to bid on providing commodities and services to the State.
  - 3) State and department purchasing policies require service and commodity contractors to comply with all applicable state and federal labor laws.
  - 4) Timber sales, timber sale prep and other contract opportunities are offered on an open, competitive bid process, in a variety of sizes and across the geographic extent of the State Forest system to provide broad access to state contracts.

- b. Insurance requirements
- 1) Timber Sale policy requires that stumpage purchasers complete DNR, FRD Form PR 4031-5 Timber Sale Verification of Worker's Disability Compensation Act Compliance within 21 days of stumpage purchase award. On this form, stumpage purchasers certify that: 1) they are not subject to the Worker's Compensation Laws, or 2) they are excluded from Worker's Compensation Laws and provide a Notice of Exclusion, or 3) they have a Worker's Compensation Policy and provide an original Certificate of Insurance.
  - 2) State and Department policies specify insurance requirements for contracts. State policies are found at [http://www.michigan.gov/dmb/1,1607,7-150-9131\\_9347---,00.html](http://www.michigan.gov/dmb/1,1607,7-150-9131_9347---,00.html). Department policies are found at <http://dnrintranet/pdfs/divisions/fosb/asdproc/series13.htm>. These policies require that service and commodity contractors carry liability insurance. Proof of liability insurance must be verified before contracts are executed.
- c. Dispute resolution
- 1) Disputes between contractors and the State of Michigan are handled following the procedures detailed in the Department of Management and Budget website called "Doing Business with the State of Michigan", [http://www.michigan.gov/doingbusiness/0,1607,7-146-6592\\_8522---,00.html](http://www.michigan.gov/doingbusiness/0,1607,7-146-6592_8522---,00.html).
  - 2) Disputes between employees and their managers are resolved following existing union contracts and department policies. Disputes between the employees of contractors and their managers are resolved following the applicable policies of the contractors.
3. **Chain of Custody.** Stumpage purchasers shall be notified that under FSC's Chain of Custody standards they may be required to show evidence that their wood comes from a certified source. This notice will be included in timber sale contracts.

**Scope:** (All State Forest Land and Affected Divisions):     State Forest Land  Other: State Forest facilities  
 DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – Parks

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Forester & Forest Technicians/FRD	Propose and administer Department contracts.
Unit Managers/FRD	Approve contract proposals. Process notices of illegal activities. Supervise administration of contracts and implementation of this work instruction.
FRD Division office	Approve contract proposals. Maintain contract documents.
Contract administrators	Administer insurance, safety and BMP training requirements of contracts.
Recreation Section leader/PRD	Provide BMP requirements and training to grant sponsors.
Conservation officers/LED	Enforce state law and address violations.
Other DNR staff	Provide FRD Unit Manager with information on issues relating to this work instruction, e.g. legal compliance, contract fairness and contract administration.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
BMP training	BMP training for contract administrators	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- DNR Administrative Procedure 13.01-01 - DNR Procurement Quick Reference Guide and DNR Administrative Procedure [13.01-02 - Acquisition of Commodities and Services Implementing Executive Directives 2004-8, 2004-9](#)
- Insurance requirements, [http://www.michigan.gov/doingbusiness/1,1607,7-146-6592\\_13075---,00.html](http://www.michigan.gov/doingbusiness/1,1607,7-146-6592_13075---,00.html)
- Information circulars for firewood permits, FRD Word template IC-4166
- DNR policy 19.05 dated 9-13-2004, Safety Program – Personal Protective Equipment Policy

**Monitoring:**

- Trail inspection reports.
  - DNR vendor database
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**Records:**

- Insurance certificates on.
- DNR vendor database
- Chain of custody notices.
- Contracts
- Michigan Accounting Information Network

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Area Group:** 8 - Training

**Work Instruction Title:** 8.1 Michigan Department of Natural Resources Staff Training for State Forest Management

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**Purpose:**

1. Provide training to empower employees to perform their jobs to the level required by DNR policies, procedures and work instructions.
  2. Record all training in a database and make records available upon request from the employee or their supervisor.
  3. Use the training database to routinely monitor that training is up-to-date.
  4. Communicate regularly with DNR employees to ensure understanding of this work instruction.
- 

**Work Instruction:**

**1. Job Training Needs will be Determined.**

- a. Division Training Officers annually review training needs.
  - 1) Training Officers maintain a table of core training needs by program area according to the policies, procedures, and work instructions of each division.
  - 2) Training Officers shall annually assess gaps in training and compile a prioritized list by program area.
- b. Training Officers shall inform employees of scheduled training courses and opportunities.
- c. The Training Advisory Team (TAT) shall publish on the intranet the annual department training report.
- d. Supervisors will determine job training needs in conjunction with employees. As part of the annual performance appraisal process, supervisors must identify employee training needs per DNR Personnel Manual 21.10.02 and divisions' policies.
- e. Additional learning needs recognized by the division Management Team will be added to the training plan.

**2. Training Implementation.**

- a. Training officers schedule annual training and inform supervisors and employees of the schedule.
- b. Supervisors ensure training completion.
- c. Employees shall inform Division Training Officers/PRD Supervisors of the completion of all required training and of any additional training completed, with the exception of department or division sponsored training for which there was a sign-in sheet.
- d. Department and division trainers shall notify their Division Training Officer of scheduled training and provide a course description and agenda. They shall also provide a copy of the sign-in sheet to the Division Training Officer within seven calendar days of the completed training.

**3. Training Records will be Maintained by the Division and Shall be Accessible to Employees.**

- a. Division Training Officers and PRD Park Supervisors will maintain training records to ensure training is up-to-date within 90 days of course completion.
- b. Training Officers will provide training records to supervisors and their employees upon request.
- c. Examples of recordable training include but are not limited to: conferences, workshops, seminars, refresher training, brown bag lunch sessions, guest speakers and special presentations, thesis defense presentations, academies, webinars, and special presentations at staff/district/unit or section meetings. Any additional training the employee feels is important to their records should also be recorded.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_  
 DNR – FRD  DNR – Wildlife  DNR – Fish  DNR – Law  DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
Training Officers	Develop and post approved annual training plan for division and inform supervisors and employees. Schedule training courses and maintain training records. Distribute educational information as identified.
Supervisors	Identify employees training needs per performance appraisal system and inform Division training officer. Schedule employee training per employee annual training plan.
Division Management Teams	Identify core training required for Division positions. Approve annual training plan.
DNR Instructors	Submit attendance lists for completed group training to Division training officer/PRD Supervisor.
Employees	Assist in identification of needed training during performance appraisal system. Attend training and notify Division training officer/PRD Supervisor of completed training.

**Training/Skills:** (Those required to accomplish work instruction)

Item	Brief Description of Skill or Course	Exists/ New
Forest Certification Overview Training	To clearly define the role of employees in the Certification process	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Statewide Forest Certification Work Instructions	Train staff in their roles identified in the work instructions	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Knowledge of Training within Performance Management System	Make employees aware of the training component of the Performance Appraisal Process (see reference section)	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

**References:**

- [DNR Personnel Manual 21.10.02 - Performance Management – Performance Appraisal Procedures](#)
- FRD Policy 142 (Personnel Training and Development)
- Training/Skills described in other Work Instructions
- Wildland and Prescribed Fire Qualification System Guide PMS 310-1 and the Michigan Addendum to the Wildland and Prescribed Fire Qualification System Guide

**Monitoring:**

- Employee and supervisor shall assess the progress after receiving priorities from Training Officer and division each year.
- Training Officer shall monitor the progress towards meeting training needs and goals by the division and report any deficiencies.

**Records:**

- Employee and supervisor shall assess the progress after receiving priorities from Training Officer and division each year. All records will be maintained by the Training Officer in Lansing and shall be available upon request by supervisor or employee.
- Forms – Training records

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**Forest Certification Work Instruction**

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**Work Area Group:** 9 – Tribal Issues

**Work Instruction Title:** 9.1 Collaboration with Tribes in Regard to Management of State Forest Land

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**Purpose:** To define interaction and collaboration with federally recognized Michigan tribes in regard to management of State Forest Lands. Identify and protect sites of special cultural, ecological, economic, or religious significance to indigenous peoples on State Forest Lands.

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**Work Instruction:**

1. The DNR Director will appoint a statewide coordinator for tribal issues. Division coordinators in FRD, Wildlife, Fisheries, and Law Enforcement Divisions will be appointed by the DNR Division Chiefs to track tribal issues related to their respective divisions and to assist in ensuring compliance with treaties, consent decrees, and with existing policy, procedures, and work instructions.
2. The DNR staff must be aware of the unique government-to-government relationship with the tribes. Routine stakeholder outreach and collaboration efforts do not fully meet the intent of this work instruction.
3. Tribal contacts and involvement in tactical forest land management activities:
  - a. The DNR will seek a description of traditional geographic areas of interest for each of the federally recognized Michigan Tribes.
  - b. The 12 federally recognized Michigan Tribes will be invited to DNR FMU open houses, and will be notified of Compartment Reviews. FRD Unit Managers will be responsible for appropriate written notifications.
  - c. The 12 federally recognized Michigan Tribes will be invited to participate in statewide and regional public planning events. Divisional Tribal Coordinators shall make direct contact in regard to Department regional state forest planning and other initiatives.
  - d. Tribal Historic Preservation Officers (THPO) shall be notified of Department undertakings involving a federal interest that may affect tribal archeological sites or tribal cultural property. Designated Division Coordinators are charged to handle notifications in their respective divisions.
  - e. The Office of the State Archeologist (OSA) shall be notified of all Compartment Review plans and of other Department undertakings that may affect tribal sites of historical significance. Prior to initiating active management activities, DNR management staff shall check the Department's archeological electronic database (HAL CONCERNS) to determine if locations involve sites of historical significance such as tribal religious, cultural or historical sites. The OSA maintains an extensive and regularly updated inventory of such sites. Sites of known historic or archaeological significance should be treated in accordance with recommendations of the OSA.

- f. District Field Supervisors, Unit Managers, and Division and Statewide Tribal Coordinators shall initiate tribal contact with the appropriate Michigan tribes to identify and discuss issues of common interest. The Statewide Coordinator for tribal issues and Division Tribal Coordinators shall be kept apprised of pending or new issues and are available to assist or facilitate tribal collaboration as needed.
- g. The DNR staff who has tribal contact will report meetings, workshops, and other key interaction with the tribes to their Division Tribal Coordinators. The Division Tribal Coordinators will track and annually report (on a fiscal year basis) this information to the Statewide Tribal Coordinator. Data to report includes:
  - 1) date
  - 2) type of contact (letter, meeting, workshop, telephone)
  - 3) DNR staff involved, tribe and tribal representatives involved
  - 4) purpose of meeting
  - 5) decisions made

The Statewide Coordinator for tribal issues shall monitor and track Department interaction and collaboration.

- h. Stand examiners must check the DNR archeological GIS data layer prior to proposing forest treatments to determine if tribal cultural interests will be impacted. Areas of potential concerns will be reviewed with the Division Tribal Coordinators.

4. Confidentiality of Tribal Information:

Sites of archeological, cultural, or other interest related to Michigan tribes shall be considered confidential and shall not be made public. Sites of archeological, historic, or traditional interests are exempted from the Freedom of Information Act. The Department will maintain confidentiality.

5. Tribal Treaties:

Tribally-owned land in reservation or trust status is considered sovereign territory, and the State of Michigan does not exercise any authority or control over such land. This issue is controlled by Federal law, and Michigan DNR has no policy, procedure or order pertaining to this issue.

2007 Inland Consent Decree: The decree provides specific requirements in regard to gathering rights, temporary structures, and access to state forest lands within a geographically defined treaty area. Gathering plant materials and other natural resources on State lands for personal, medicinal, cultural, or traditional craft use may be authorized (i.e. the Tribes may authorize their members). They shall not be used for commercial purposes, except as specifically provided for in the decree. The State and the Tribes shall seek to avoid user conflict and other resource concerns arising from certain gathering activities on State lands through a consultative process involving the local offices of the DNR and the Tribes. The DNR shall notify and consult with the Tribes before permanently closing an approved access road or trail. In the event that the DNR establishes a program for seasonal closures of approved access roads or trails, the DNR shall notify and consult with the Tribes before implementing any such seasonal closure.

**Scope:** (All State Forest Land and Affected Divisions):  State Forest Land  Other: \_\_\_\_\_

DNR – FRD     DNR – Wildlife     DNR – Fish     DNR – Law     DNR – PRD

**Responsibility and Role:** (Staff who will implement or supervise this instruction)

<b>Job Title/Division</b>	<b>Role</b>
Statewide Coordinator for tribal issues / DNR	Coordinate tribal issues among DNR Divisions. Seek a description of traditional geographic areas of interest for each of the federally recognized tribes.
Unit Manager / FRD	Establish local communications with tribal point-of-contact. Notify HAL of management activities that could impact sites of tribal interest. Notify tribes of open house and compartment review schedule. Issue local use permits.
Division Tribal Coordinators / FRD, LED, WD, FD, PRD	Track tribal issues related to their Division. Attend and/or facilitate meetings with tribes. Notify THPO of Department undertakings involving federal funds that may affect tribal archeological sites or tribal cultural property.
Division Chief / FRD, WD, FD, LED, PRD	Appoint Division coordinators for tribal issues
District Managers/ Unit Managers/ Tribal Coordinators	Inform tribal representatives of open house and compartment reviews. Inform tribes of locations of upcoming year-of-entry compartments prior to start of field inventory by DNR staff.
FRD Division Tribal Coordinator	Initiate regular contact with the federally recognized Michigan tribes to identify and discuss issues of common interest. Ensure tribes are contacted, informed, notified, and invited to participate in regional state forest planning and biodiversity initiatives.
FRD Dist Planning & Inventory Specialists	Annual update of ecoregional tribal contact lists.

**Training/Skills:** (Those required to accomplish work instruction)

<b>Item</b>	<b>Brief Description of Skill or Course</b>	<b>Exists/ New</b>
Tribal values	Instruction and information about tribal cultural and natural resource values	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

**References:**

- Eight primary Indian Treaties and related court decisions,
- OI Field Manual Chapter 7, FRD policy and procedure #251, Section j.
- State Forest Resource Assessment Procedure Information Circular 4123
- 2007 Inland Consent Decree

**Monitoring:**

- Internal Audit

**Records:**

- Treaty maps maintained by the DNR Statewide Coordinator for Tribal Issues
- Tribal points of contacts maintained by the DNR Statewide Coordinator for Tribal Issues
- Land Use permit issue record maintained by Unit Managers
- OI open house and compartment review contact records maintained by Unit Managers
- State forest planning participation records will be maintained by District and Lansing Planning Specialists
- Cultural heritage records maintained in locked comments in OI records
- Record of annual tribal contacts