

Michigan Department of Natural Resources and Environment

Forest Certification Work Instructions

(Complete Set)

Updated 10-04-11

DNR FOREST CERTIFICATION WORK INSTRUCTIONS
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Forest Certification Work Instruction**Date of Draft Document:****Effective Date:** 5-6-08**Revision Number:** 3**Supersedes Version Dated:** 6-29-07**Work Instruction Title:** 1.1 Strategic Framework for Sustainable Management of State Forest Land**Work Area Group:** 1 – Plan, Monitor, and Review**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 DNR.**Work Instruction:**

- I. The DNR will prepare and maintain a State Forest Plan. 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 development of the ecoregional plans.

The document will be developed through an interdivisional effort of Wildlife, Fisheries, and Forest, Mineral and Fire Management personnel. It will be submitted and approved by the Statewide Council following a public input process. The Plan's implementation will be monitored through multiple processes, including the DNR Statewide Resources Planning Team review and the annual DNR Management Review.

II. 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. 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 Statewide Council 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 Ecoregional Plan Development
- 1.4 Biodiversity Management on State Forest Lands
- 1.5 Social Impact Considerations and Public Involvement Processes
- 1.6 Forest Management Unit Analyses
- 1.7 State Forest Timber Harvest Trends

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 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 MDNR 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 – FMFM DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

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

Job Title/Division	Role
State-wide Planning Team	Draft Guidance Document, communicate to Statewide Council, communicate to DNR following Statewide Council approval
Statewide Council, Director, Division Chiefs	Complete actions necessary for the implementation of Work Instructions within the DNR.
Field Coordinators, Basin, Peninsular, District and Unit Managers/ FMFM, FSH, & WLD	Ensure work instructions are fully implemented
District Planning and Inventory Specialists/ FMFM; District Ecologists, WLD	Provide oversight in implementing standards, monitoring and evaluating performance.
Ecoteams	Incorporate guidance into ecoregional plans
All MDNR Land Management Staff	To be knowledgeable of document and guidance contained therein and to ensure guidance is reflected in operations.

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

Item:	Brief Description of Skill or Course	Exists/ New
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:

- State Forest Management Plan
 - Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451
 - FSC & SFI Forest Certification Standards
-

Monitoring:

- The Forest Certification internal audits and external audits will determine DNR's effectiveness in implementing sustainable forest management. 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 AND ENVIRONMENT

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 4-6-10

Revision Number: 2

Supersedes Version Dated: 6-29-07

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

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

Work Instruction:

1. Internal audit teams will be formed and will conduct regular audits on DNRE Forest Management Units (FMUs). The audits will include field implementation of State and District level programs.
 - a. Four FMUs per year will normally be audited. Audit number may vary depending on budgetary and staffing constraints.
 - b. Supplemental internal audits can be requested through the chain of command.
 - c. The DNRE Statewide Council will designate which FMUs and state forest related programs will be audited each year.
 - d. Internal audits will be conducted by a DNRE lead auditor and an audit team.

2. Annual Management Review.

The Statewide Council will conduct an annual management review to evaluate audit results for state forest operations, evaluate effectiveness of work instructions, evaluate non-conformances, and determine changes and improvements necessary to continually improve conformance. 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 Department.
 - i. FMD and WLD Field Coordinators will oversee the internal audit process in conjunction with the Forest Certification Coordinator.
 - ii. Monitoring requirements cited in the forest certification standards and work instructions will be incorporated into the internal audit process.
 - iii. DNRE District Supervisors must 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
 - i. Schedule the management review to follow annual forest certification audits.
 - ii. Management Review will consist of a statewide review of audit results. Audits will evaluate field operations and Department programs.
 - iii. Conduct an annual management review. Meeting will be hosted and chaired by the field coordinators of FMD and WLD. Fisheries Division will participate in the meeting. Ecoteams will also be represented at the annual management reviews.
 - iv. UP and LP Field Coordinators will prepare a joint draft report addressing conformance with the forest certification standards and recommendations for improvement. The draft report will be submitted to DNRE division chiefs for review. Field Coordinators will incorporate division

management team review comments and submit a final report to the Statewide Council and the Forest Certification Team (FCT).

- v. The conformance report will include a report of management actions immediately taken to address audit results, will site 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 FCT will be responsible for ongoing management review implementation and for recommending actions necessary to improve sustainable management of forest resources.
- c. The Statewide Council will identify changes and improvements necessary at all Department levels to continually improve conformance with work instructions via a written annual communication to all employees.
- d. Division Chiefs will ensure changes and improvements approved by the Statewide Council are implemented via written communication to employees.

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

DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law DNRE – Recreation

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

Job Title/Division	Role
Statewide Council	Conduct an annual management review; identify changes and improvements necessary to improve forest management. Designate which units or state forest related programs will be audited each year.
Internal Auditors	Conduct annual internal audits and recommend improvements to internal audit process.
Field Coordinators / FMD, WLD, FD	Oversee internal audit process. Conduct annual management review in the UP and NLP. Prepare draft and final compliance reports. Implement changes and improvements into field operations.
Division Chief / FMD, WLD, 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.
FCT	Coordinate ongoing management review implementation. Recommend actions necessary to improve sustainable forest management.
Forest Certification Specialist / FMD	Oversee and support internal audit process.
District Supervisors/ FMD, WLD, 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 DNRE staff in forest certification audit procedures to meet forest certification standards	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

References:

- Regional forest Stewardship Standard for the Lake States-Central Hardwoods Region
- Sustainable Forestry Initiative Standard, 2005-2009

Monitoring:

- Annual Compliance Reports
- Annual Surveillance Reports

Records:

- Internal Audit Reports
 - Annual Compliance Reports
 - Annual Surveillance Reports
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MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 7

Supersedes Version Dated: 5-5-09

Work Instruction Title: 1.3 Regional State Forest Management Plan Development

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

Purpose: Define roles, responsibilities, content and the timeline for the development of Regional State Forest Management Plans. Provide a document outline to follow when developing the plans.

Work Instruction:

Two separate types of plans for each ecoregion will be developed. The first type of plan will provide specific operational direction for the management of State Forest lands, and will be known as **Regional State Forest Management Plans (RSFMPs)**. These plans are the focus of this document. Completion of these plans will be the immediate focus for work by the Northern Lower and Upper Peninsula (NLP, EUP and WUP) ecoteams. The NLP ecoteam will assist the Southern Lower Peninsula (SLP) ecoteam in drafting a management plan for the few State Forest lands located in the SLP ecoregion. The goal for completion of draft plans for the NLP, WUP, and EUP ecoregions is December 2011. Draft RSFMPs will not incorporate results from the Biodiversity Conservation Planning Process (Biodiversity Stewardship Areas), which will be incorporated in future revisions to the plans.

The second type of plan, **Ecoregional Resource Plans (ERPs)**, will be strategic in nature and address all land ownerships in a region (including all Department lands – forests, parks and wildlife areas). Completion of this type of plan will be the immediate focus of the Southern Lower Peninsula (SLP) ecoteam, with the northern ecoteams to follow. All ecoteams will use a collaborative public process for development of their ERPs in the form of Regional Advisory Teams, to be comprised of interested regional stakeholders, other agencies, and governmental representatives. More detailed Statewide Council (SWC) direction regarding the development of ERPs will be provided in a separate document.

The SWC has approved a proposal to use a concept of distinct management areas (MAs) in the Regional State Forest Management Plans. MAs are groupings of State Forest compartments that have similar attributes, such as vegetation types, landform, or proximity to key user groups. MAs will be used as a framework for describing the history, current conditions and management direction for vegetative management in the Regional State Forest Management Plans. The section on special resource areas (SCAs, HCVAs, and ERAs) in each Regional State Forest Management Plan and in the Michigan State Forest Management Plan (April 10, 2008) will address management direction for other uses and values (recreation, etc.) of the State Forest.

The purpose of using the MA framework in Regional State Forest Management Plans is to enable landscape-level analyses and specific direction that, when combined with other existing standards and guidelines will help to guide tactical decisions made at each Forest Management Unit which will still be made using the existing compartment review process.

Regional State Forest Management Plan Development

1. Regional State Forest Management Plan development will be carried out within the context of, and with consideration for statewide, division, local, species-specific, and other DNR planning efforts, and will implement strategic goals as provided by the Michigan State Forest Management Plan and Ecoregional Resource Plans (when completed). While the focus will be on DNR state forest lands within each ecoregion, conditions and trends within the broader ecoregion will be considered. Plan development will occur with the input of the public throughout the process. The planning documents will provide long-term, landscape-level direction to field managers to guide decision making at the Forest Management Unit level.
2. The process will be guided by each ecoregional planning team. Consultation with external parties (e.g. The Nature Conservancy, Michigan Natural Features Inventory, U.S. Forest Service, Indian Tribes, and various industry and environmental organizations.) will be expected. As part of this process and in preparation for plan development, resource assessments will be identified and completed by ecoteam staffs.

Subsequent planning steps will entail preparing the plan with public involvement. A recommended sequence tied to plan development is as follows:

- Engage the public in the planning process prior to formulating the plan
- Complete Sec. 1 - Understanding the Regional Forest Plan
- Complete Sec. 2 - Forest History
- Complete Sec. 3 - Current Forest Conditions and Trends
- Complete Sec. 4 - Management Area Direction
- Complete Sec. 5 - Special Resource Area Management Direction
- Complete Section 6 - Monitoring, Review & Revision
- Complete Sec. 7 – Appendices, Sec. 8 – Glossary, and an Executive Summary
- Engage the public in reviewing the complete draft plan; hold a combined (all ecoregions) public comment period and revised based on public input.
- Submit final draft of completed plan to Division Management Teams for review and recommendations and then to the Statewide Council and DNR Director for approval.

Suggested means of public involvement include:

- Consultative techniques such as public comment periods, focus groups, surveys and public meetings.
 - Establish/maintain a regional internet web page on the DNR website that lists the history, timeline, supporting documentation and current status of planning. Provide an on-line means of submitting public comments on the plan process and draft plan sections. Publish a summary of all comments and DNR response, using DIT software programs such as Communications manager 5.1.
 - Maintain a dedicated email account and the DNR Facebook webpage to provide opportunities for on-line comments, announcements and discussions.
 - Update regional lists of organizations and agencies who are potentially interested in the regional planning process. Provide draft documents and other information to these groups.
 - Develop a presentation describing the regional planning processes that can be offered at stakeholder and DNR functions.
3. Draft Regional State Forest Management Plans will be completed by December 2011 with final approval expected in March 2013, in accordance with the October 4, 2011 SWC approved timeline. Consistent with the Forest Stewardship Council certification standard, Regional State Forest Management Plans will be reviewed every 10 years and revised as necessary to incorporate the results of monitoring or changing ecological, social or economic circumstances.
 4. Subject to future revisions by the Statewide Council, the general outline of the Regional State Forest Management Plans should be as follows:

Executive Summary

1. Components of the Regional State Forest Plan

1.3 Regional State Forest Management Plan Development

2. Regional Forest History
3. Current Regional Forest Conditions and Trends
4. Management Area Direction
 - a. Management Area 1
 - i. Forest Cover Type Management
 - ii. Common and Rare Fish, Wildlife and Plant Habitat Management
 - iii. Forest Health Management
 - iv. Fire Management
 - v. Access
 - vi. Other Considerations
 - b. Management Area 2, etc.
5. Special Resource Area Management Direction
 - a. Special Conservation Areas
 - b. High Conservation Value Areas
 - c. Ecological Reference Areas
6. Monitoring, Review & Revision
 - a. Management Review System
 - b. Plan Monitoring
 - c. Plan Revision
7. Appendices
8. Glossary

5. The following attributes shall be applied to the State Forest within each ecoregion and selectively used in the delineation of management areas possessing similarity in attributes. All attributes may not apply to all management areas.

OWNERSHIP ATTRIBUTES

- a. Adjacency to other public (including DNR parks and wildlife areas) or private ownerships, and also considering their varying intensity of stewardship and protection.
- b. Percentage of the landscape in different public and private ownerships.
- c. Consideration of ownership size and connectivity.
- d. Areas with existing DNR management plans.

SOCIAL/ECONOMIC ATTRIBUTES

- a. Proximity to wood product markets.
- b. Proximity to population areas and major transportation arteries.
- c. Trends in population growth and recreation demands.
- d. Proximity to known historical/cultural sites.
- e. Degree of access.

ECOLOGICAL ATTRIBUTES

- a. Similar site potential as expressed by habitat type.
- b. Historic vegetative composition.
- c. Current vegetative composition and structural characteristics.
- d. Wildlife species distribution patterns for select species (including threatened and endangered species and those defined by the DNR Wildlife Action Plan (WAP)).
- e. Proximity to known ecologically sensitive sites.
- f. Existing forest connectivity or fragmentation.
- g. Analyses of watersheds and the climate, bedrock geology, glacial landform and soils in Ecological Classification Systems.

6. Using Management Areas as a framework, Regional State Forest Management Plans will contain specific, quantitative landscape-level direction that will inform tactical decision-making processes during compartment review at the Forest Management Unit (FMU) level of operations. This management direction will be embodied in Sections 4 and 5 of the

plans. Management direction should be founded on Section 3 and other analyses of landscape-level conditions and trends, as provided by:

- a. Approved statewide, regional or local plans and guidelines identified in the document “A Comprehensive Summary of the Department of Natural Resources Planning Process for Natural Resource Management in Michigan”, specifically including:
 - i. The Michigan State Forest Management Plan (2008),
 - ii. Ecoregional Resource Plans,
 - iii. Michigan’s Wildlife Action Plan,
 - iv. The Kirtland’s Warbler Management Plan,
 - v. DNR River Assessments.
 - vi. DNR Guidelines for Red Pine Management (2006),
 - vii. Within-Stand Retention Guidance (2006),
 - viii. A Process for Implementing Mesic Conifer Restoration on State Land, Western Upper Peninsula, Michigan (2004),
 - ix. Green-up Guidelines (2006),
 - x. Michigan DNR Approach to the Protection of Rare Species and Rare Species Assessment Guidelines for DNR Staff on State Forest Lands (2006),
 - xi. Interim Guidelines for Evaluating Riparian Management Zones on State Lands (2004),
 - xii. Conservation Area Management Guidelines (2005).
 - xiii. Sustainable Soil and Water Quality Practices on Forest Land (2009)
- b. Analyses of the cover types in each Management Area, specifically including:
 - i. Age-class distributions,
 - ii. Cover type structural and compositional trends,
 - iii. Basal area, size classes and stocking,
 - iv. 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.

Management direction in Sections 4 and 5 of Regional State Forest Management Plans should provide specific language to achieve landscape-level goals (as expressed by the plans listed in subsection (a) above) through compartment-level prescriptions, including the following examples:

- a. Current major cover type acres within each MA,
- b. Section 5 Special Resource Area acreages within each MA.
- c. Projected sums of major cover type acreages within each MA at the end of the 10-year planning period.
- d. Treatments to achieve the projected sums of major 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 specific habitat improvement 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 ecoteam level. Where resolution at the ecoteam level is not successful, conflict resolution shall be elevated to the level of regional divisional field coordinators. The SWC 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 – FMD DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

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

Job Title/Division	Role
All DNR personnel within an Ecoregion	Select staff will participate in development of the plan. All staff will have opportunity for input and need an awareness of regional planning processes. All staff will participate in implementing the plan through on-the-ground operations.
FMD Inventory and Planning Specialists & Wildlife Ecologists	Document and summarize the revisions to regional planning processes and assist with the development and review of the regional plans through the Ecoregional Planning Teams.
Other specialists	Assist with the development of particular plan sections pertaining to specialty.
Ecoteam	Oversees regional planning processes. Coordinates DNR regional input and public input into plan development. Review and draft regional plan and present to Statewide Council. Responsible for plan monitoring and recommending revisions to the plan and implications for DNR operations. Responsible for communicating and coordinating with DNR staff within the ecoregion and Ecoregional Planning Team.
Ecoregional Planning Team: Wildlife Mgt Unit Ecologist/Planner (WE) FMD Inv. & Planning Specialist (IPS) Lansing FMD Cert. planner (FCP) FD representative	Create Regional State Forest Management Plans: WE and IPS – Liaison between FCP and Ecoteams, Draw on field-based Division resources to write and compile local sections of plan and integrate with statewide components. FCP – Draw on Lansing and other Division resources to write statewide components of plans and compile with regional sections. Assures compliance with legislation and compatibility with certification requirements.
Statewide Resource Planning Team (SRPT)	Review draft regional plans for consistency and their content/direction compatibility with other plans. Responsible for monitoring and analyzing the 4 regional plans to ensure they are meeting statewide objectives and direction from the Michigan State Forest Management Plan (2008).
Statewide Council (SWC)	Appoints Ecoteams and the SRPT, and approves the planning process, the final draft regional plans, and future revisions.
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:

- Michigan State Forest Management Plan
 - Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451
 - A Comprehensive Summary of the DNR Planning Process for Natural Resources Management in Michigan.
-

Monitoring:

- Reporting, monitoring, analyzing, and adapting management would take place at all 3 levels-FMU, Ecoregion, and Statewide. Monitoring of the regional plans will be the primary responsibility of the Forest Management Division. 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 ecoteams, Statewide Resource Planning Team and the Statewide Council.
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Records:

- Public comments
 - Public meeting notes and comments
 - SWC 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

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

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Supersedes Version Dated: 4-6-10

Work Instruction Title: 1.4 Biodiversity Management on State Forest Lands

Work Area Group: 1 - Planning, Monitoring, Review

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

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.

I. 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 (NREPA, Part 355, PA 451, 1994 as amended).*

Special Conservation Areas (SCAs). 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 other may be identified through cooperative agreements (administrative direction). There are also conservation objectives that are developed through department processes or agreements 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.

High Conservation Value Areas (HCVAs). Areas of state forest which have been recognized for their contribution to specific conservation values, objectives and ecological attributes or significant social values and have been through a recognized DNR process¹. Examples of such a process include legislation, administrative rule, Director’s and Natural Resource Commission Orders, and project-specific public reviews. HCVAs include Legally Dedicated Natural, Wilderness or Wild Areas, Natural Rivers, Critical Dune areas, Designated Critical Habitat (e.g. Kirtland’s Warbler Management Areas), Dedicated Management Areas (e.g.

¹ Although an important public process, Open House/Compartment Review will not be a final approval forum for designating HCVAs and ERAs. It will be a key process for identifying potential conservation areas.

the Sand Lakes Quiet Area), and Coastal Environmental Areas. Typically, HCVAs are a subset of SCAs on state forest land that have had significant public participation and/or public review as part of their planning process. Biodiversity Stewardship Areas (BSAs) will be a HCVA category that will be designated using the approved Biodiversity Conservation Planning Process (BCPP), as amended. 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 of Regional State Forest Management Plans.

Ecological Reference Areas (ERAs). ERAs serve as models of ecological reference within the state and may be located on any forest land ownership. They are high quality examples of functioning ecosystems that are primarily influenced by natural ecological processes. The initial set of ERAs is based on Michigan Natural Heritage database of known high quality natural community sites (See Conservation Area Management Guidance). The initial set of ERAs are natural communities that have a Global (G) or State (S) Rank of endangered (1), threatened (2) or rare (3)², and have an Element Occurrence (EO) Rank A or B (the site is an "excellent or good" examples of the natural community). This initial set will remain unchanged until additional ERAs or other modifications to the initial set are identified through the BCPP or another process that may be developed. All ERAs on state forest land are, by definition, High Conservation Value Areas.

The ERA, HCVA and SCA designations are nested (Figure 1). These three categories quickly organize areas with conservation objectives or values into Ecological Reference Areas, High Conservation Value Areas and Special Conservation Areas.

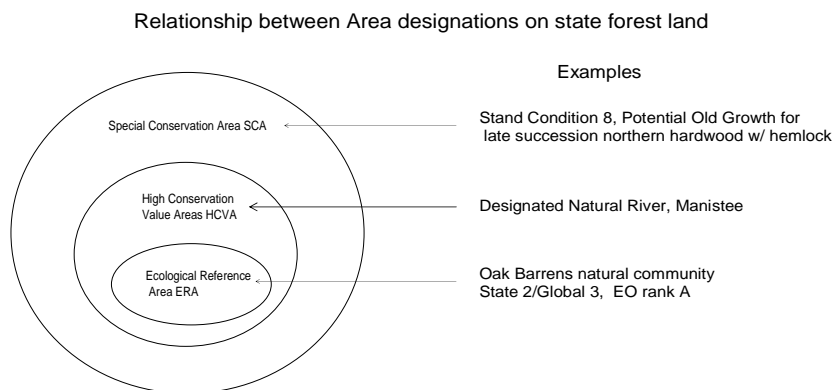


Figure 1. ERA, HCVA and SCA Designations.

Biodiversity Stewardship Areas (BSAs). Currently there are no designated BSAs. A database of potential BSAs has been compiled for all four ecoregions and is in the process of being reviewed by the Statewide Biodiversity Team, consistent with the revised biodiversity conservation planning and approval process approved by the DNR Director in September 2011. BSAs will be areas of land selected to help conserve biodiversity through ecological representation of natural communities. BSAs will contain some of the State’s best examples of high-quality common natural communities. Therefore, the BSA network will help us augment the current set of ERAs to better meet the requirements of Criterion 6.4 of the FSC Standard. BSAs will be a category of HCVA with a higher level public review process. After the DNR completes implementation of the BCPP, a management decision will be made on the future of these various labels (e.g., ERA, BSA) in our land management and planning efforts and whether all of them are necessary.

² Natural Community Rank and Element Occurrence in Michigan are determined by Michigan Natural Features Inventory using internationally recognized heritage methodology developed by The Nature Conservancy and used by NatureServe.

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 three 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

II. Management Direction:

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), identified in several categories (Special Conservation Areas, High Conservation Value Areas, and Ecological Reference 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.

It is the responsibility of the DNR land management staff to understand the intent of the SCA identification as well as the implications for management activities. The database of SCAs is located within the Geographic

Decision Support Environment (GDSE), and maintained by the FMD GIS Certification Specialist. Through the course of conducting Forest Inventory (IFMAP), stand examiners evaluate the database for completeness. **Any newly proposed SCAs, or previously identified areas of Potential Old Growth that are desirable to maintain, should be coded as an Area of Interest (AOI) in IFMAP (with the “Reason of Interest” attribute being “Unique Site”).**

1. Identified SCAs, HCVAs and ERAs will be managed to conserve, protect, maintain, and/or enhance their defined conservation objectives or values. As provided in the Michigan State Forest Management Plan and in Regional State Forest Management Plans, management direction will vary depending on the objective and type of designation.

On DNR managed lands, Ecological Reference Areas may be protected through a variety of mechanisms (refer to Conservation Area Management Guidance). Management activities or prescriptions in Ecological Reference Areas are highly restricted to those that maintain or enhance the defined attributes and values and protect the immediate natural resource values or human health and safety.

2. Potential Old Growth (POG) Management Direction: No vegetative treatments shall occur in areas currently identified as Potential Old Growth until these stands are assessed in the context of SCAs, HCVAs and ERAs, excepting activities that protect immediate natural resource values (such as control of invasive species pests and wildfire suppression) or human health and safety. Previously identified potential old growth SCAs shall be evaluated for re-designation as ERAs, HCVAs or other SCAs through the Biodiversity Conservation Planning Process and the compartment review process. Those areas that do not meet the criteria for another classification to another category shall have the IFMAP AOI coding and comments as a “unique site” for potential old growth removed.
3. 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 additional areas that may be identified by field staff will be assessed and validated through the compartment review process over the next decade, using the procedure as laid out in Section III of this work instruction. 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, HCVA, or ERA designation may be retained for the area.

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).

4. 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.

III. Instruction for Compartment Review:

This section contains three subjects that must be completed for each stand under consideration for treatment in the compartment review process:

Review for rare species

Determine appropriate biodiversity management guidelines

Map and code existing and potential new SCAs, HCVAs and ERAs

A. REVIEW FOR RARE SPECIES

Refer to Figure 2 and the following direction for rare species review. Additional information is contained in the Michigan DNR Rare Species Protection Approach and Resources for DNR Staff on State Forest Lands (IC 4172, dated 2011).

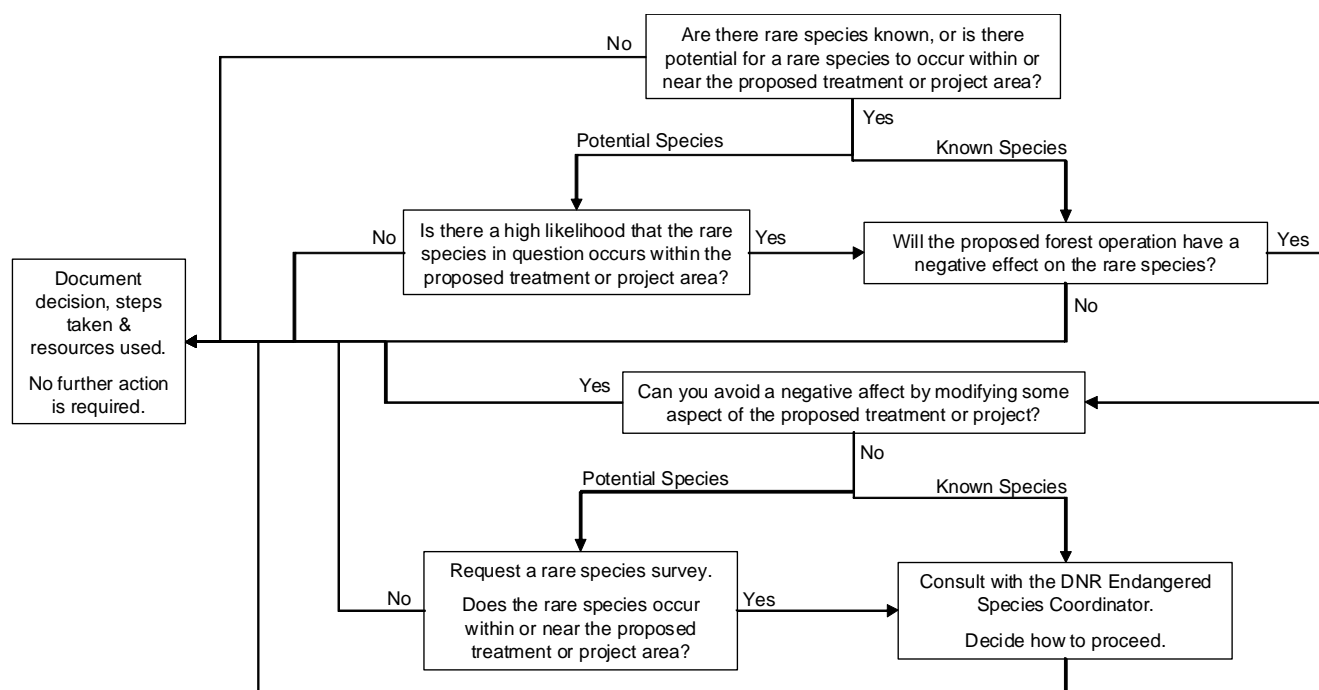


Figure 2. Review for rare species for forest operations.

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. Use Compartment Review Comments prepared by contract services (e.g., MNFI ecologists) and other information resources available to make this determination. Information resources may 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. Record determination and resources used to make determination in IFMAP Opportunistic Field Survey (OFS) locked comments and place a signed and dated copy 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.

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 Fisheries Division 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.

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 FMD Forest Resource Management Section Manager AND the FMD 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 2011) 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 IFMAP 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.

B. DETERMINING APPROPRIATE BIODIVERSITY MANAGEMENT GUIDELINES

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

A previously designated area (ERA, Potential Old Growth, Dedicated or Non-Dedicated Natural Area, Designated Critical Habitat, Critical Dune, or Coastal Environmental Area).

An area with no previous designations but potentially identified through the process described in section III (1) above.

Review biodiversity management guidelines for the natural communities/cover types under consideration for management using management direction contained in the Michigan State Forest Management Plan, approved ERA plans, MNFI species and community abstracts, Michigan Wildlife Action Plan, Silvicultural Guidelines, and other habitat models (see references).

Stand examiners determine how potential management activities may positively or negatively impact the area and identify specific elements that protect, maintain or enhance biodiversity, e.g. snags, coarse woody debris, edge, perches, and legacy trees. (see "Within-Stand Retention Guidance" and "Rare Species Assessment Guidelines" in References section).

Record in management prescription comments (IFMAP treatments under review comments).
 Add biodiversity specifications to timber sale specifications and Forest Treatment Proposals.

C. MAPPING & CODING SCAs/HCVAs/ERAs:

Prior to the initiation of field inventory, use Figure 3 and the following guide to determine if an area should be retained or designated and coded as a Special Conservation Value Area (SCA), High Conservation Value Area (HCVA) or Ecological Reference Area (ERA). Figure 4 and Table 1 (Minimum criteria for assessing stand characteristics and classifying Type 1 and 2 Old Growth on the State Forest) should also be used to assess and validate Type 1 and 2 Old Growth areas as potential HCVAs.

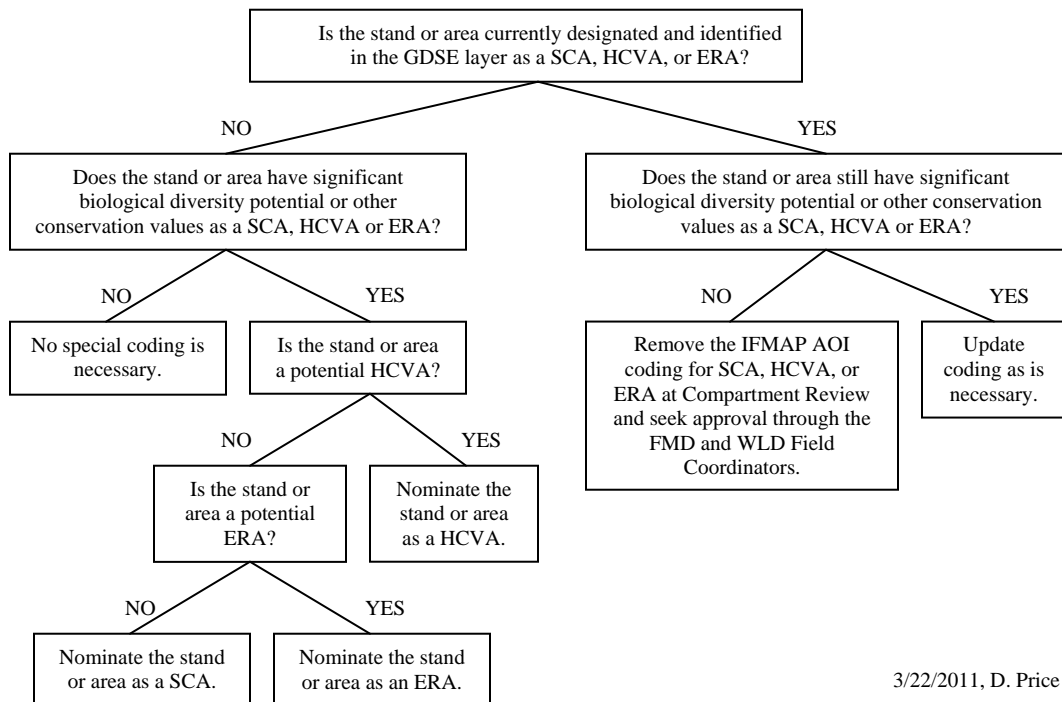


Figure 3. Identification of SCAs, HCVAs, and ERAs during inventory.

Is the stand or area currently identified as a SCA, HCVA, or ERA in the GDSE?

- If yes, does the stand or area still have significant biological diversity potential or other conservation values as a SCA, HCVA or ERA?
 - If yes, then update coding as necessary for the appropriate conservation values (the intent is to have an SCA/HCVA/ERA tag in IFMAP so that stand sheets indicate its presence).

If there is a need for MNFI survey work to provide more data on the area, then forward a request to Forest Resources Management Section Manager and the FMD Biodiversity Conservation Program Leader through the Forest Management Unit Manager.

- If no, then remove the IFMAP AOI coding for SCA/HCVA/ERA at Compartment Review and seek approval through the FMD and WLD Field Coordinators. Notify the Forest Certification GIS Specialist to update the GDSE SCA layer.

- If no, does the stand or area have significant biological diversity potential or other conservation values as a SCA, HCVA or ERA?
 - If yes, is the stand or area a potential HCVA (requiring approval through a public designation process. See examples in the above definition section).
- If yes, nominate the stand or area as a HCVA:
 - Document the area in IFMAP as an AOI, with the ‘Stage 2 Reason’ being ‘Unique Site’. Identify the type of HCVA, what is unique about the area, and how the area will be managed or treated in AOI comments. For example: “HCVA for proposed Natural Area. Late successional mesic northern forest with hemlock in understory. Manage with no proposed treatments.” (Reference the document “Conservation Area Management Guidance” for coding direction).
 - After approval at Compartment Review, the District Planning and Inventory Specialist will forward the nomination to the Forest Resource Management Section for action by the DNR Biodiversity Team.
 - If there is a need for MNFI survey work to provide more data on the area, then forward a request to Forest Resources Management Section Manager and the FMD Biodiversity Conservation Program Leader through the Forest Management Unit Manager.
- If no, then is the stand or area a potential ERA? (See the above definition section.)
 - If yes, then nominate the stand or area as an ERA:
 - a. Document the area in IFMAP as an AOI, with the ‘Stage 2 Reason’ being ‘Unique Site’. Identify the type of ERA, what is unique about the area, and how the area will be managed or treated in AOI comments. For example: “ERA for Mesic Northern Forest with hemlock in understory. Manage with no proposed treatments.” (Reference the document “Conservation Area Management Guidance” for coding direction).
 - b. After approval at Compartment Review, the District Planning and Inventory Specialist will forward the nomination to the Forest Resource Management Section for action by the DNR Biodiversity Team.
 - c. If there is a need for survey work to validate the nomination or to provide more data on the area, then forward a request to Forest Resources Management Section Manager and the FMD Biodiversity Conservation Program Leader through the Forest Management Unit Manager.
 - If no, then nominate the stand or area as a SCA:

Document the area in IFMAP as an AOI, with the ‘Stage 2 Reason’ being ‘Unique Site’. Identify the type of SCA, what is unique about the area, and how the area will be managed or treated in AOI comments.

Example:

“SCA for Cultural and Customary Use Area for maple sugaring by 1836 Treaty Tribes. Manage for sawlog diameter class sugar maple.” (Reference the document “Conservation Area Management Guidance” for coding direction.)

If there is a need for survey work to validate the nomination or to provide more data on the area, then forward a request to Forest Resources Management Section Manager and the FMD Biodiversity Conservation Program Leader through the Forest Management Unit Manager.

- If no, then no special coding is necessary. The stand does not have significant conservation values as an SCA/HCVA/ERA.

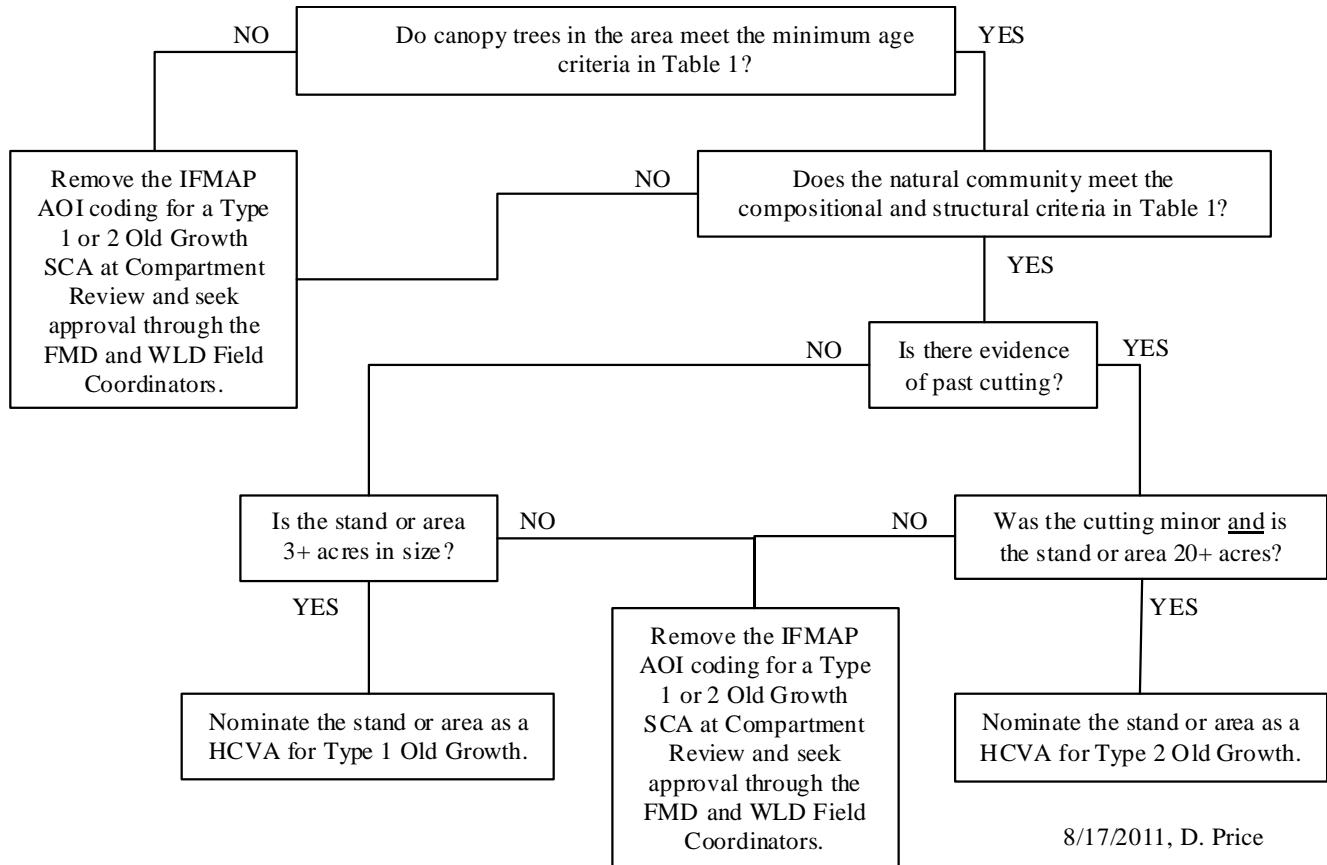


Figure 4. Identification of Type 1 and 2 Old Growth during inventory.

Table 1. Minimum criteria for assessing stand characteristics and classifying Type 1 and 2 Old Growth on the State Forest¹.

Community	Age ²	Composition	Structure	Disturbance	Size	Type
Boreal Forest	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2
Dry-mesic Northern Forest	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. ³ Evidence of fire.	3+ acres.	1
				Minor cutting. ⁴ Evidence of fire.	20+ acres.	2
Dry Northern Forest (Red Pine Variant)	Canopy Red Pine are 150+ years ² .	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. ³ Evidence of fire.	3+ acres.	1
				Minor cutting. ⁴ Evidence of fire.	20+ acres.	2
Floodplain Forest	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. ³ Windthrow and flooding occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow and flooding occurs.	20+ acres.	2
Hardwood-Conifer Swamp	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2
Mesic Northern Forest	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2
Poor Conifer Swamp	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2
Rich Conifer Swamp	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2
Rich Tamarack Swamp	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2
Wooded Dune and Swale Complex	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. ³ Windthrow occurs.	3+ acres.	1
				Minor cutting. ⁴ Windthrow occurs.	20+ acres.	2

¹ 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-Classes and Significance Levels for Palustrine and Terrestrial Natural Communities*, Michigan Natural Features Inventory, 17 February 1988.

² 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.

³ 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.

⁴ 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, 2nd 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).

Scope: (All State Forest Land and Affected Divisions): State Forest Land Other: MNFI
 DNR – FMD 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 HCVA's and ERAs.
Eco-Team/All Divisions	Regional biodiversity assessments and planning
Unit Manager and District Planner/ FMD; Wildlife Habitat Biologist and Wildlife Ecologist / WLD; Fisheries Biologist/FD	Compartment/FMU biodiversity assessments, planning, and operations
Stand Examiner/FMD	Identification of elements
Michigan Natural Features Inventory/MSUE	Analysis, identification and management guidance of elements of biodiversity
Endangered Species Coordinator/WLD: Fisheries representative for reptiles and amphibians	Analysis, identification and management guidance and permitting for elements of biodiversity
Program Specialists: Conservation and Biodiversity Program, FMD Natural Areas, WLD Natural Rivers, FSD	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 (HCVA, 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

Biodiversity Conservation Planning Process (IC 4013, dated October 2007)

Forest Mineral and Fire Management

Policy 441, Operations Inventory and Compartment Review Procedures

IFMAP Inventory Manual, 2006.

Resource Assessment Process Flow Chart, April 2002

Conservation Area Coding

DRAFT Conservation Area Management Guidelines (IC 4450, dated September 2005)

Within-Stand Retention Guidance (IC 4110, dated 2011)

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.

Proposed Old Growth and Biodiversity Stewardship Planning Process and Draft Criteria for Michigan's State Forests and Other State Owned Lands, February 8, 2001 - Note: this is the precursor to the Biodiversity Conservation Planning Process and includes previous direction from the Old Growth on State Forest Lands, addendum to the Statewide Forest Resources Plan of 1983; Identifying potential old growth in operations inventory, Burns, H. March 15, 1995; and other information.

Silvicultural Guidelines

Michigan State Forest Management Plan. 2008. Michigan Department of Natural Resources, Lansing MI. 276 pp.

Michigan DNR Rare Species Protection Approach and Resources for DNR Staff on State Forest Lands (IC 4172, dated 2011).

DNR Monitoring Protocol Summary for Ecological Reference Areas and High Conservation Value Areas.

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.

Michigan Department of Natural Resources, Michigan Wildlife Action Plan

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

FMD biodiversity information layer

OI database and maps

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

Eco-regional plans: biodiversity management area maps (as applies)
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
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
Recreation, Wilderness, And Related Resource Management, 2300,
Chapter 2320 - Wilderness Management
North Central Cover Type Handbooks

Monitoring:

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

1. Prior to the Year of Entry (YOE) data revision/update deadline, Land management staff and District Planners will ensure that all stand comments, 'limiting factors' and stand condition codes are compatible.
2. The DNR Monitoring Protocol for Ecological Reference Areas and High Conservation Value Areas will be followed.
3. Annual internal audits will include reviews of stand level biodiversity considerations.
4. Ecoregional plans will include biodiversity criteria and indicators in addition to describing SCAs and setting and monitoring targets in the ecoregion.
5. Department-wide review and documentation of biodiversity will be conducted as part of the Biodiversity Conservation Planning process.

Records:

Operations Inventory and IFMAP database of State forest lands, maintained at state-wide level and recorded at local level (stands within a compartment), records of ERAs, HCVAs, and SCAs. The database will include conservation objectives and crosswalk with protection and management directives.

GDSE data layers for ERAs, HCVAs, 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:

Effective Date: 10-4-11

Revision Number: 1

Supersedes Version Dated: June 20, 2005

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

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

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

Work Instruction:

- Policy:
 - A. NRC Policy 2207 regarding management of State Forests states the following:
 - “The Department shall consider all the values of forest resources.”
 - “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 special reports (e.g. Wildlife Conservation Strategy, Biodiversity Stewardship, and Ecoregional 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:

- a. "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:

- b. "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 Office of Communications must be notified or contacted."

In turn, the Office of Communications is required to:

- a. inform the DNR Management Team of the formation of work groups that involve and engage stakeholders and other DNR constituencies.
- b. coordinate and/or plan a communications strategy, as necessary, with divisions/offices and DNR employees who participate in the work group.
- c. ensure that the Office of Communications maintains a database of current work groups and their members.

- 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 (OI manual, Chapter 7). Social impacts are considered through the evaluation of public comments as they relate to the compartment review process. Specific topics that are identified in the Compartment Review include:

- Management goals
- Ownership patterns, development, and land use in and around the compartment
- Archeological, Historical and Cultural features
- Special management designations or considerations
- Mineral resource and development concerns and/or restriction
- Vehicle access
- Recreational facilities and opportunities
- 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.

- EcoRegional/District Level:

A. Social values will also be considered through the public involvement processes in the development of Regional State Forest Management Plans (RSFMPs) and ecoregional plans. Development of the RSFMPs will incorporate a minimum of two public meetings and an additional comment period during the time the plan is developed and before the final draft is submitted to the Statewide Council for approval. (See Work Instruction 1.3).

B. Social values and impacts will be considered as part of special projects which cross FMU boundaries. Recent examples include the Chocoley Snowmobile Trail, Keweenaw Point Management Plan, ORV and Snowmobile Plans, Mullet Lake to Cheboygan Trail... 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.

- 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 is being 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:

- Identify potential long-term threats to forest resources in the State.
- Describe economic and environmental opportunities that are linked with forest resources.
- Address management problems, opportunities and challenges related to public and private forest ownership.

- Provide active participation in the DNR’s forest resource planning activities, including forest certification efforts.
- 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. Many other statewide advisory committees exist, examples include:

- Snowmobile Advisory Committee,
- ORV Advisory Board,
- Recreational Trails Program Advisory Board,
- Citizens Waterfowl Advisory Council,
- Hunter Recruitment and Retention Work Group,
- Michigan State Parks Citizens’ Committee

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

DNR – FMD DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

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.
FMD Inventory and Planning Specialists	Assure social impact considerations are documented in inventory databases, CR Summaries and CR meeting notes.
Regional Ecoteams and Ecoregional Planning Teams	Identify, track, review and report social C & I; consider and/or develop recommendations for operations based on social and other impacts. Include public meetings and input opportunities during ecoregional plan development. (The Ecoregional Planning Teams will conduct much of this work while the Regional Ecoteams 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 Advisory Committee	Assists the DNR Director in balancing environmental, social and economic issues in carrying out the DNR’s forest resource management responsibilities

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

Item:	Brief Description of Skill or Course	Exists/ New
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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
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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
- Draft Statewide Forest Planning Guidance Document, 5/3/05
- 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

Monitoring:

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

Records:

- B. C&I measurements and reports
- C. Public comments
- D. Public meeting notes and comments
- E. Eco-team and SWC documented approvals
- F. Maps and background documents
- G. Analysis results
- H. Draft and final plan documents

Forest Certification Work Instruction
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Date of Draft Document:**Effective Date:** 5-06-08**Revision Number:** 3**Supersedes Date:** 6-29-07

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 and age class trends.

Work Instruction:

- FMU maps and tables will be developed through GIS analysis by the Forest Certification Resource Analyst. They will be used in the Compartment Review process and displayed on FMU web pages.
 - A. The maps and tables to be developed are based on the following items that are currently covered in Compartment Review Summaries:
 - Soil and Topography
 - Ownership patterns, development, and land use in and around the compartment
 - Unique, natural features
 - Archeological, Historical and Cultural features
 - Special management designations or considerations
 - Watershed and fisheries considerations
 - Wildlife Considerations
 - Mineral resource and development concerns and/or restrictions
 - Vehicle access
 - Survey needs
 - Recreational facilities and opportunities
 - Fire protection

In addition to these existing Compartment Review Summary categories, maps and information will be developed pertaining to forest health concerns, regeneration activities, socioeconomic data, and forest type trends. The FMU information will be available and reviewed as appropriate throughout the Compartment Review decision-making process.

B. Where possible, the FMU analyses will be prepared within the IFMAP GIS environment to enable ongoing refinement and integration with our future GIS-based inventory system. The Resource Analyst will work with the IFMAP Inventory Technical Group to assure this integration occurs. FMU analysis information will be reviewed by FMFM Planners, WLD Ecologists and Biologists, FMU staff and the FMFM Webmaster. The Silviculture and Regeneration team will review FMU analyses pertaining to forest types, treatments, and projections based upon prescriptions. Unit Managers will approve FMU web site postings

FMU information will be sent out as it is completed. To enable access and comparisons across FMUs, initially, all products will be posted on a share drive, pushed out to FMU servers (or burned onto CDs when requested), and incorporated into IFMAP. Descriptions of the analysis (data layers and methodology) need to accompany the products. Layers and training for their use will be made available to FMU staff.

The Certification Resource Analyst will maintain the data layers, notify Units, Planners, Ecologists, and Timber Management Specialists of updates subsequent to the initial round of analyses, and lead an annual review of the processes and products.

- FMUs will conduct a pre-inventory meeting to discuss issues involving the next year-of-entry compartments. This meeting is ideally a group meeting on the FMU involving all affected Divisions and programs. The FMFM Unit Manager will schedule and coordinate the meeting with the District FMFM Planner and Wildlife Division Ecologist. The FMFM District Supervisor will ensure meetings occur; are coordinated with other staff and other Division interests; and are properly documented. The meeting should utilize the above FMU information and other data to put the year-of-entry compartments into a long-term, landscape level perspective. Examples include an analysis of forest type acres and their age classes (or basal area), Special Conservation Areas (see Biodiversity Work Instruction) and considerations, tribal interests, public input, and other broad resource information. Timber Management Specialists will generate and provide major cover type trends and projections of age classes and harvests developed from historical and current inventory and timber sale information. As goals are developed and approved at the ecoregional level or changed at the division level, projections based upon timber treatment prescriptions will be contrasted against such goals.
- Following the completion of forest inventory data collection, and prior to the pre-review (after post stage 2 meeting in IFMAP), the Timber Management Specialist will develop age class and harvest projections and report preliminary implications of prescriptions for each FMU. (The pre-review (which is different from the pre-inventory meeting) is ideally a group meeting on the FMU involving all affected Divisions and program staff). The projections will address what will result if proposed prescriptions are followed. Forest trends will be re-projected prior to posting on the website, and will be available for the compartment review. Subsequent to the compartment review, forest trends are again re-projected if there are any changes.
- Each Unit is responsible for working with the Division Web Master to develop and maintain their Unit's web page which will contain general statements about the Unit's relative uniqueness, forest activities (e.g. recreational opportunities), history, and/or other social/economic/biological characteristics and links to the FMU information under #1 above. No information will be posted without Unit Review first. Disputes or conflicts with respect to postings will be resolved by the normal chain of command.

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

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

Job Title/Division	Role
FMFM 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.
Planning and Inventory Team (FMFM Planners, Inventory Specialist, WLD Ecologists and Biologists, and related Lansing staff)	Review analyses and assist in formatting and training for FMUs and help develop subsequent management review at FMU, District, and State levels. Assist FMUs in interpretation of analyses and any follow-up.
Timber Management Specialists	Develop projections and preliminary implications of prescriptions for FMU.
Silviculture and regeneration team	Review projections and tables pertaining to forest types and future inventories predicated upon current prescriptions.
Stand Examiners, other FMU personnel, WLD Ecologists and Biologists and FMFM 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 representatives	Work with FMFM Webmaster to incorporate and maintain information on web pages.
FMFM Web Master/Liaison	Work with Units and Certification Resource Analyst to develop and manage 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. Schedule pre-inventory meeting.
Ecoregional Planning Team and Regional Ecoteam	Monitor FMU operational performance year-to-year with respect to C & I and ecoregional plan. Note successes, discrepancies and new concerns; report to Districts and Divisions. (Most of this work to be done by the Ecoregional Planning Team which reports to Regional Ecoteam for their review.)
FMFM 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
Describe FMU Analyses	Documentation accompanying maps and layers sent to Units	<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, FMFM Planners, Cert. Resource Analyst)	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Review FMU Analyses	District Specialists need to review the analyses derivation and uses	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
GIS/Analysis Skills	ArcView/ArcInfo	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

References:

- Biodiversity Considerations on State Forest Lands Work Instruction
 - Strategic Framework for Sustainable Management of State Forest Land Work Instruction
 - Ecoregional Plan Development Work Instruction
 - Social Impact Assessment and Public Involvement Processes Work Instruction
 - OI Manual Chapter VII, “Compartment Reviews”
 - Forest Management Unit Compartment Review Presentation form
 - Draft Statewide Forest Management Guidance Document, 5/3/05
 - Draft Comp Review Summary Items with GIS Layers Identified and Prioritized document
 - Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451
-

Monitoring:

1. 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.
-

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
-

Forest Certification Work Instruction
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Date of Draft Document:**Effective Date:** June 20, 2005**Revision Number:** 0**Supersedes Version Dated:**

Work Instruction Title: 1.7 State Forest Timber Harvest Trends**Work Area Group:** 1 – Plan, Monitor, and Review

Purpose: To prepare a report for the Chief of the Forest, Mineral and Fire Management Division describing recent Michigan State Forest timber harvest trends and the factors which influence them. The report will serve to develop reasonable expectations with respect to future State Forest timber harvest levels and provide a basis for management review and reporting on timber harvest levels.

Work Instruction:

- The Planning and Operations Unit Leader shall meet with the State Silviculturist to discuss the Michigan State Forest Timber Availability and Harvest Trends report outline, agree upon a timetable and tasks, and direct the Silviculturist to begin work on the project.
- At a minimum, the resulting report shall include the following:
 - Background and purpose of the analysis and paper, including references to current timber supply concerns and forest certification, and descriptions of past projections.
 - Methods and data sources employed in the analysis.
 - The current timber sale treatment decision processes and anticipated changes.
 - Tables and descriptive information describing past and likely future trends by administrative unit, forest type, products and treatments.
- Through the above items, the paper will address:
 - The need and appropriateness of developing realistic expectations with respect to future timber harvests in contrast to past projections emphasizing what was biologically possible.
 - The compartment review treatment decision process and rationale for the rate of annual harvest and species selection.
 - The sustainability of State Forest harvest levels, identifying factors that influence sustainability and future harvest levels.
 - DNR plantation management.
 - Changes to the information management systems (e.g. VMS and IFMAP).
 - Current and anticipated timber-related management costs.
 - Tables and reporting to assess future harvest levels.
- The report will give consideration to ongoing managerial review of timber trends and include items that are legislatively required.

- Subsequent to the initial report, on an annual basis, forest conditions and harvest trends will be reviewed and contrasted against the descriptions in the report by the Timber Management Specialists, the Timber Sale Program Leader, the State Silviculturist, and the Inventory Specialist and others as deemed appropriate to determine the need to update or revise the report.

Scope: (All State Forest Land and Affected Divisions): State Forest Land Other: _____
 DNR – FMFM DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

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

Job Title/Division	Role
Planning and Operations Unit Leader/FMFM	Draft Document Outline and Analytical Steps, Assemble Data
State Silviculturist/FMFM	Conduct Analysis and Develop Draft Report; Modify as Appropriate Following Review
Timber Management Specialists/FMFM; Timber Sale Program Leader, Inventory Specialist and others as deemed appropriate, including FMFM Mgt Team, FMFM & WLD Dist. Specialists	Review outline and subsequent Report
Others as deemed appropriate, including FMFM Mgt Team, FMFM & WLD Dist. Specialists	Review Report
FMFM Certification Planner/FMFM	Incorporate excerpts of report into 2005 Management Plan

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

Item:	Brief Description of Skill or Course	Exists/ New
Familiarity with OI, FIA, & T-Sale Data; past projections	Planning & Operations Unit Leader to Provide to State Silviculturist	<input type="checkbox"/> E <input checked="" type="checkbox"/> N

References:

- Draft Statewide Forest Management Guidance Document
- Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451
- 11/10/99 Silvicultural Needs Analysis and related documents
- Michigan’s Forest Resources: Direction for the Future, MDNR 1983 Plan
- Michigan’s Forests 1993: An Analysis
- Michigan’s Predicted Timber Yields 1981-2010
- USDA Forest Service Forest Inventory & Analysis data (available on “FIA Mapmaker” website)

Monitoring:

1. Statewide Planning Team (when established)
 2. Forest Condition Spreadsheets: Acres, Age class
 3. Management Review System
-

Records:

- T-Sale Data
 - OI and IFMAP stand and compartment coding
 - OI forest cover maps
 - USDA Forest Service Forest Inventory & Analysis data
-

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 3

Supersedes Version Dated: 5-5-09

Work Instruction Title: 2.1 Reforestation

Work Area Group: 2 – Forest Regeneration and Chemical Use

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

Work Instruction:

- Desired Future Condition:

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 moves the stand toward its desired future condition as determined by the management objective agreed to 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 need to make comments in the narrative section of Operations Inventory (OI) or in IFMAP in the Treatments database (Next Steps comment field) reflecting an acceptable species mix should the stand not regenerate to the management objective and this must be agreed to at compartment review. If type conversion occurs without this pre-approval, after-the-fact approval is acceptable. Stands that can not 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 OI or IFMAP that will lead to the inclusion of relevant timber sale contract specifications and the retention of this regeneration. Management guides and [FMD 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.

- Indication of Regeneration Method:

Forest inventory codes will be used to determine if a stand will be artificially or naturally regenerated. [The OI manual](#) provides guidance, beginning with the method of cut (MOC) section of the manual. The regeneration method for stands prescribed for regeneration harvests in IFMAP (Appendix B of the IFMAP manual has a breakdown of methods of cut) is indicated by the cover type management objective for the treatment. If a stand is being regenerated artificially, it will have a "Planted..." (Level 3 code '421'). All other cover types are assumed to be naturally regenerating.

- Exotics:

The [FMD 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 ([R4046](#)). 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 or bioengineered species.

- Timing and Adequacy of Regeneration:

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. 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 OI. 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 requiring TMS assistance will be forwarded to the TMS as needed, but at least once a the year. 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 OI 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 outlined in the [OI manual, Chapter 7](#).

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 FMD Reforestation Policy or Silvicultural Guidelines, whichever is more stringent.

- Regeneration Monitoring:

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](#).

Stands prescribed for natural regeneration will be monitored until adequate regeneration is achieved. Naturally regenerating stands will primarily be checked 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 OI system will be scheduled using the regeneration time clock spreadsheet. The timeclock spreadsheet will be maintained until the stands have successfully regenerated AND compartments have been converted to IFMAP. Stands prescribed under the IFMAP 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 of Regeneration Check must be scheduled regardless of whether the regeneration is to be by artificial or natural methods or whether the regen check would occur at the next inventory cycle or sooner.

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 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 all stands may be approved earlier than next inventory year or the calculated out-of-entry-year survey date providing minimum standards specified in the Regeneration Survey Manual are met.

Unit Managers will be responsible for tracking these stands and initiating follow up action in consultation with the TMS. Unit Managers are responsible for all reforestation activities on the Unit, however, the TMS shares in the responsibility for those stands forwarded to them.

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 IFMAP Stage 1 inventory procedures (i.e., remote calls, edge calls, and walk through examination are options), using the procedure outlined in the [Forest Regeneration Survey Manual](#). Unit Managers will be responsible for the initial examination and for coordinating corrective actions. If regeneration is estimated to be inadequate, the stand will be referred to the TMS for further examination. The TMS will be responsible for conducting or coordinating any additional surveys using district 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 for any stands referred to them. Oversight and documentation of these surveys will be the responsibility of the Unit Manager.

Survey results must be recorded in the inventory database 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 inventory coding will be updated to reflect artificial regeneration and 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 – FMD DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

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

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

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

Item	Brief Description of Skill or Course	Exists / New
OI coding training	Provide clarification and training in coding (paragraph 1 comments)	<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

References:

- Act 451 1994
 - [NRC Policy 2204](#)
 - [FMD Policy 241](#)
 - [FMD Policy 251](#)
 - [OI manual](#)
 - IFMAP Manual
 - [Forest Regeneration Survey Manual](#), Information Circular 4145
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Monitoring: See section 4 of work instruction (below).

Records:

Completed records are kept in compartment files. Records to include:

1. Forest Treatment Proposal (FTP) Form [R4048](#)
 2. Forest Treatment Proposal Completion Report Form [R4048-1](#)
 3. Planting Summary Form [R4046](#)
 4. [reforestation database](#)
 5. reforestation sampling records.
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MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 4

Supersedes Version Dated: 4-6-10

Work Instruction Title: 2.2 Use of Pesticides and Other Chemicals on State Forest Lands

Work Area Group: 2 – Forest Regeneration and Chemical Use

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

Work Instruction:

- Prescriptions: Minimize pesticide use to achieve management objectives. Use alternatives to chemical pesticides when they are legal, 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. Choose chemicals from the attached list of DNRE approved products for use on State Forest lands. The list includes only chemicals meeting FSC criteria and labeled for use in Michigan. New additions to the list must be approved by the Forest Health, Inventory and Monitoring Unit Manager.) Follow the procedures outlined in Policy 592, Pesticide Use, section D.3.a for making pesticide prescriptions.
 - When a Forest Treatment Proposal (FTP) (R-4048) requiring a pesticide application is approved, complete a Pesticide Application Plan (PAP, R-4029). 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.
 - 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 where a pesticide applicators license is not required does not require an FTP.
- Operational use of pesticides:
 - Certification of Applicators: All DNRE personnel directly involved in the application of pesticides will be certified as pesticide applicators by the Michigan Department of Agriculture, Pesticide and Plant Management Division (Policy 592). There is an exception if ready to use (RTU) pesticides are being used in their original containers. Ready to use pesticides can be applied by non-certified personnel providing they are only applied using their original, closed container. No mixing, diluting, or transferring of product to another container is permitted. 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.
 - Application and Evaluation: Pesticide applications are accomplished with either DNRE staff or contract applicators. Upon completion of a pesticide application, complete a Forest Treatment Completion form (FTC, R-4048-1) and an attached Pesticide Use Evaluation Report (PUER, R-4029-1). For herbicide

applications, complete Section 8 of the Pesticide Use Evaluation Report 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.

- Pesticides used must be labeled for the intended use and used within the label requirements.
- 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.

Interim recommended Buffer distances in feet*			
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 ¹	100	100	100
Flowing Ditches & Intermittent Streams ¹	100	100	100
Farm / Crop Lands	25	10	5
Public Roadway ²	15	10	5

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

²Buffer distances measured from edge of road surface; if right-of-way width exceeds buffer minimum, the right-of-way takes precedence.

*adapted from International Paper ISO 14000 Standard

- 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.
- 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
- Emergency procedures: Spill kits must be carried on DNRE 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.
- Access Control: Restrict access to pesticide treatment areas and prevent inadvertent exposure of employees and the public using guards, locked gates, signs, 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.
- Notification (Policy 592): The need for public notification is determined at the Forest Management Unit and reviewed by the FMD District Supervisor (note: training element: use PAP to describe notification plans) Need is evaluated within each of the following categories:
 - Public risk. The possibility of adverse exposure to a pesticide.
 - Public concern. Perceived problems relating to the use and/or exposure to pesticides.

- 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.
 - 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.
- Spraying State-owned rights-of-way: Rights of way vegetation control is conducted through Special use Permits (PR 1138E) granted to the lessee (easement holder). The permit documents detail chemical products that will be used, rates, methods, specific areas of application and signing and notification requirements. The permit application is then reviewed by the appropriate Forest Management District Specialist (TMS who is a Michigan certified pesticide applicator) who coordinate unit level reviews by Unit Managers within the affected Forest Management Units. Unit Managers are responsible for coordinating local reviews by biologists from Wildlife (WLD) and Fish (FSD) Divisions. The local Wildlife Biologist is responsible for T&E species review by the Endangered Species Coordinator. Michigan Department of Agriculture is notified of the spraying schedule and conducts on-site inspections of equipment and application rates.
- 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 or common name	Active ingredient	Use status
	2,4-D 2-ethylhexyl ester	May only be used in conformance with conditions in approved FSC pesticide derogation, expires Jan 5, 2015.
	captan	Use is allowed.
	thiram	Use is allowed.
Dicamba	dicamba	May only be used in conformance with conditions in approved FSC pesticide derogation, expires Jan 5, 2015.
Arsenal	imazapyr	Use is allowed.
Bravo	chlorothalonil	Use is allowed.
Dimlin	diflufenzuron	May only be used in conformance with conditions in approved FSC pesticide derogation, expires Jan 5, 2015.
Envoy	clethodin	Use is allowed.
Escort	metsulfuron-methyl	Use is allowed.
Garlon	triclopyr	Use is allowed.
Hyvar	bromacil	Use is allowed.
Krenite	fosamine ammonium	Use is allowed.
Merit	imidcloprid	Use is allowed.
Merit	imidcloprid	Use is allowed.
Oust	sulfometuron methyl	Use is allowed.
Plateau	imazapic	Use is allowed.
Roundup, Accord, other glyphostae formulations	glyphosate	Use is allowed.
Tordon 101	picloram + 2,4-D	Use is allowed.
Transline	clopyralid	Use is allowed.
Transline	clopyralid	Use is allowed.
Velpar	hexazinone	May only be used in conformance with conditions in approved FSC pesticide derogation, expires Jan 5, 2015.

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

DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law DNRE – Recreation

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

Job Title/Division	Role
Forest Health, Inventory, and Monitoring Unit Manager	Approve new additions to the list of chemicals meeting FSC criteria and labeled for use in Michigan.
Timber Management Specialist / FMD	For silvicultural practices: Review FTP's, write PAP's, approve PAP's authored by others (may not approve PAP's authored by themselves), supervise herbicide applications, perform PEUR. Coordinate reviews and issue permits for utility right-of-way herbicide maintenance.
Forest Health Specialist/ FMD	For forest insect and exotic species 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, perform PEUR
Pesticide applicator / DNRE	Apply or administer contract application of silvicultural herbicides, write PAP's.
Other involved staff	Assist in the handling, storage, transportation, access management, or treatment evaluation of pesticide treatments.
Silviculturist/ FMD	For silvicultural practices: approve PAP's authored by others (may not approve PAP's authored by themselves).
FMD Unit Manager	Review and issue permits for maintenance of ROW

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

Item	Brief Description of Skill or Course	Exists/ New
Certified Pesticide Applicator, Michigan Dept. of Agriculture?	All DNRE staff directly involved in pesticide application must have a valid State of Michigan certified pesticide application license.	<input checked="" type="checkbox"/> E <input type="checkbox"/> N
Worker Protection Training	DNRE 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:

- FMD 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/principl.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 Timber Management Specialist or Forest Health Specialist.

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
- [Pesticide Application Report](#)
- Worker protection training records
- Special Use Permit (PR 1138E)

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 4-6-10

Revision Number: 1

Supersedes Version Dated: June 20, 2005

Work Instruction Title: 2.3 Integrated Pest Management and Forest Health

Work Area Group: 2 – Forest Regeneration and Chemical Use

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

Work Instruction:

- 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, other state, and federal agencies as needed.
- Fire protection and management is accomplished under the FMD Protection Program area including wildfire suppression, prescribed burning, and assistance to local fire departments.
- 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.
 - Utilize slash restrictions in red pine stands that are at risk for bark beetle infestations. Sale condition 5.2.15 is an example.
 - Specify seasonal operating restrictions on timber sales as per sale condition 5.2.13.
 - Do not leave a residual jack pine overstory over younger jack pine in areas where jack pine budworm is a potential hazard.
 - Plan harvests to avoid or reduce losses to insect outbreaks such as pine bark beetle (*ips pini*), spruce budworm or jack pine budworm.
 - Avoid planting red pine where sweet fern is present to minimize problems from Saratoga spittlebug.
 - Attempt to match cover type species selections to the site using habitat types (Burger and Kotar, 2003) as a guide to site suitability.
 - 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.
 - On the subject of use of non-native tree species for reforestation FMD 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)
 - 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.

- Chemical use. Control measures utilizing 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)
- Invasive exotics.
 - “Invasive non-native plants will not be used on public lands, mandated restoration projects or recommended for use on private lands” (DNR 2001).
 - Consideration should be given to the potential spread or increase of invasive exotic species in the planning and operational stages of all treatments. FMD Forest health specialists will provide direction and advice to the FMUs in regard to control of invasive exotic species. Non-chemical methods will be the preferred method used to control and /or decrease invasive exotic species when ever possible. Chemical methods may be used alone or in combination with non-chemical methods as needed, (see Chemical Use Work Instruction).
- Genetically Modified Organisms (GMOs).
 - 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.
 - 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: _____
 DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law DNRE – Recreation

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

Job Title/Division	Role
Forester, Forest Technician / FMD	Prescribe and administer harvest treatments.
Timber management specialist / FMD	Review harvest prescriptions. Conduct regeneration treatments.
Wildlife biologist, Wildlife Technician / WLD	Review forest treatments, prescribe other specific habitat manipulations, may conduct treatments.
Forest Health Specialist (Forest Health Monitoring Program Leader & Forest Health Management Program Leader/ FMD	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 / FMD	Oversee application of this work instruction at the forest management unit level
Fire officer / FMD	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:

- 1) MDNR, 1999. FMD Policy 241, Reforestation
 - 2) Forest Health Field Report, R-4029-3
 - 3) Burger, T and Kotar, J. 2003. "Guide to Forest Communities and Habitat Types of Michigan".
 - 4) VMS, 2005. MDNR, VMS timber sale management software, sale specific conditions.
 - 5) Chemical Use Work Instruction
 - 6) 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
-

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
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MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 6

Supersedes Version Dated: 5-5-09

Work Instruction Title: 3.1 Forest Operations

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

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

Work Instruction:

Operations on the State Forests lands will protect:

- water-quality,
- rare species (threatened, endangered or special concern plant or animal species)
- special sites (cultural, ecological, geological, and historic),
- Site productivity

Operations review: FMD, Fisheries, and Wildlife Divisions will review and approve all intrusive operations 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, operations will be reviewed in the annual compartment review process. In the absence of an appropriate form or letter that provides an opportunity for FMD, WLD, and FSHD to sign off, the Forest Treatment Proposal (FTP) may be used to document approvals. Completion of operations will also be documented in a form available to the approving divisions (the Forest Treatment Proposal Completion Report may be used for this purpose). 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.

Staff shall comply with the Intrusive Activity Approval Procedure as defined on the next page:

**Intrusive Activities Review and Approval Process for certified State lands
(Revised June 7, 2011)**

Intrusive Activity	FMD Approval	Wildlife Approval	Fisheries Approval	Other
ALL Timber Sale Proposals Included at compartment review	Unit Manager, Timber Management Specialist (TMS) must act within 10 working days.	Wildlife Biologist	Unit Manager	
ALL Timber Sale Proposals for treatments not included at compartment review	Unit Manager, District Supervisor, TMS must act within 10 working days.	Wildlife Biologist, Wildlife Supervisor	Unit Manager	Follow DNR Resource Assessment Procedure checklist, IC 4123, Chapter 7 notification
Forest Treatment Proposals (FTP) for treatments included at compartment review. (Multiple treatments in decade only 1 time approval with annual Completion reports)	Unit Manager	Wildlife Biologist	Unit Manager	Treatments involving federal funds require review by the Wildlife Division Federal Aid Coordinator (see IC 4123)
(FTP) Beaver, animal or dam removal (Exception: FTP is not required to remove beaver dams immediately threatening a Department Road.)	Unit Manager	Wildlife Biologist	Unit Manager	LED District Sup
Forest Treatment Proposals (FTP) for treatments not included at compartment review. (Multiple treatments in decade only 1 time approval with annual completion reports)	Unit Manager, District Supervisor	Wildlife Biologist, Wildlife Supervisor.	Unit Manager	Follow DNR Resource Assessment Procedure checklist, IC 4123, Chapter 7 notification
Use Permit and Event Permits not involving earth or vegetation changes (Use PR 1138 or PR 1138-1 and follow associated procedure)	Unit Manager If FMD 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	LED District Supervisor for event permits
Event Permits involving earth or vegetation changes (Use PR 1138 and follow associated procedure)	Unit Manager If FMD 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	Follow DNR Resource Assessment Procedure checklist, IC 4123 LED District Supervisor

Intrusive Activity	FMD Approval	Wildlife Approval	Fisheries Approval	Other
Use Permit involving earth or vegetation changes (Use PR 1138-1 and follow associated procedure) (Note: renewals or extensions of use permits may not need another round of approvals if permit conditions/specifications have not changed. i.e. annual use permit for monitoring wells (consider including a specification in the permit allowing extension or renewal with manager approval)	Unit Manager If FMD 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.	Follow DNR Resource Assessment Procedure checklist, IC 4123
Well Site Surface Use Permits issued per Department Procedure	Unit Manager	Wildlife Biologist (10 day response period or inferred approval)	Unit Manager if surface water is within 500 feet (10 day response or inferred approval)	On leases that are more than 5 years old, MNFI, & Archeological Concerns data base must be checked.
Forest Road Construction /Improvement Permits (Internal and external)	Unit Manager, District Supervisor, Field Coordinator	Wildlife Biologist	Unit Manager if surface water is within 500 feet	Follow DNR Resource Assessment Procedure checklist, IC 4123
Mineral Leases	According to Department Procedure	DNR Procedure	DNR Procedure	
Mineral lease variance or change in mineral lease classification	According to Department Procedure	DNR Procedure	DNR Procedure	
Road and Public Utility Easements	According to Department Procedure	DNR Procedure	DNR Procedure	Recreation Division review if involved.
Fishery Management(Use FTP or other appropriate form) -Stream bank restoration -Manual removal -Lake reclamation-chemical -Dam, removal or construction -Sand traps	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
Forest Road/ Trail Closure Proposal	Unit Manager, District Supervisor, Field Coordinator	Wildlife Biologist, Wildlife Supervisor	Unit Manager	Follow DNR Resource Assessment Procedure checklist, IC 4123. LED District Supervisor, EcoTeam Tribal notification for permanent

Intrusive Activity	FMD Approval	Wildlife Approval	Fisheries Approval	Other
				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	Follow DNR Resource Assessment Procedure checklist, IC 4123 LED District Supervisor, Divisions and State Trails Coordinator
Water Access on or adjacent to State Forest Land: -Site development -Dredging -Site renovation	Unit Manager, District Supervisor	Wildlife Biologist, Wildlife Supervisor	Unit Manager	Follow DNR Resource Assessment Procedure checklist, IC 4123 for new construction, LED District Supervisor, Recreation Division District Supervisor, Field Coordinator if LAD

Note: In summary, 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.

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 Sustainable Soil and Water Quality Practices on Forest, 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. 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.

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 document assessments and decisions regarding potential impacts as well as changes to proposed forest operations implemented to avoid potential impacts, and place a copy of the documentation in the compartment files.

Cultural, geological, and historic sites: The Office of the State Archeologist (OSA) and/or the State Historic Preservation Office (SHPO) is 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.

Site Productivity: Forest Operations shall strive to maintain forest and soil productivity, and avoid excessive soil disturbance. Minimize the loss of soil and site productivity, and modify soil management techniques if soil degradation occurs.

BMP Non-conformances that are identified per work instruction 3.2 must be assessed by the management review process. Documentation of the location of areas of concern: Relevant waters, species, and special sites shall be shown on maps and/or on the ground sufficient to guide the application of protection measures.

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

DNR – FMD DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

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 FMD, WLD, and FSHD
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.
- FMD Policy 251A Sales and removal of timber visual management,
- FMD 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)
 - Operation Inventory Manual.
 - 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 Information Circular 4123

Monitoring:

- FTP Proposals 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
 - OI prescription sheets
 - MNFI Compartment Remarks
 - SHPO Compartment Remarks
 - Timber sale inspection forms
 - Endangered species permits
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Forest Certification Work Instruction
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Date of Draft Document:**Effective Date:** 6-29-07**Revision Number:** 2**Supersedes Version Dated:** August 5, 2005

Work Instruction Title: 3.2 Best Management Practices Non-Conformance Reporting Instructions**Work Area Group:** 3 – Best Management Practices (BMP)

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

Work Instruction:

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.

Public reports should be received and recorded at any DNR office and directed to the local FMFM 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.

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 participants conformance with the SFI Standard.

DNR employees must report problems using a non-conformance report form. This information will be sent to the FMFM 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:

- Date of observation

- Name of reporting person

- Phone number and/or email of reporting person

- Weather conditions at time of observation

- Exact location of the problem, with latitude and longitude, if possible

- Name of the wetland water body affected, if available

- Name of the road or trail involved, if available

- Nature of problem

- Seriousness of the original problem (urgent, high, medium, low)

- Immediate action taken to correct the problem, if any

- Remaining seriousness of the problem (urgent, high, medium, low, none)

- Suggested additional action needed

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 OI 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.

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 – FMFM 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 / FMFM	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 Water Quality Management Practices on Forest Land/Forestry Best Management Practices Manual.
- DNR Riparian Management Zone guidelines.
- Operation Inventory Manual.
- DNR Rutting Guidelines

Monitoring:

- e. 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 AND ENVIRONMENT

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 4-6-10

Revision Number: 3

Supersedes Version Dated: 5-06-08

Work Instruction Title: 3.3 Best Management Practices--Road Closures

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

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

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 PA 451, Part 324.811. From PA 451, 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.

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 and Environment (DNRE) may issue a Land Use Order of the Director (LUOD) for emergency road closure. Staff should use the following procedure:

1. A DNRE 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) Manager.
2. The LAD Manager (normally the FMD 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.
3. The LAD Manager will immediately contact their respective Ecoteam Chairperson and report the situation. At the same time, the LAD Manager will complete and sign the Forest Road Checklist, R4503 and Forest Road Closure Review form, R4504 and submit to the Ecoteam chairperson. (Note: additional approvals/sign offs are not needed for the emergency closure.) If the LAD Manager does not take action, and another Division supervisor feels they should, the matter should be submitted to the Ecoteam, with evidence and justification, for recommendations. .

4. The Ecoteam Chairperson will advise the Ecoteam of the road issue, solicit their timely input if possible, and then make his/her recommendations on behalf of the Ecoteam to the LAD, Lansing and the LAD Unit Manager (copy to the Ecoteam). The Statewide Council shall address issues not resolved by the Ecoteam.
5. If the Ecoteam determines that the emergency road closure is not needed, the LAD Manager will open the road and work with the Ecoteam to identify an alternative method to address the problem.
6. If the Ecoteam approves closure, the LAD Lansing will receive written notification of the Ecoteam's decision including a map, Forest Road Checklist, R4503 and Forest Road Closure Review form, R 4504. The LAD, Lansing will prepare a draft LUOD and Director's memo and submit for approval, per Department procedure. If a LUOD is issued, the road shall remain closed until the situation is corrected and rescission of the LUOD is initiated.
7. To rescind an Emergency Road Closure LUOD (one without a built in time line), the LAD Manager will request the Ecoteam to recommend rescission of the order. If approved, the Ecoteam will submit a request to the LAD, Lansing to rescind the LUOD.
8. The LAD, Lansing will advise the Ecoteam of the status of the rescission.

Non-Emergency "normal" road closures:

Any DNRE 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 their supervisor. The supervisor, after determining that a Department controlled road should be closed temporarily, seasonally, or permanently, will proceed with the following:

- 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. Seek review recommendations for the Forest Road Closure Review from the local FMD Unit Manager, Wildlife Habitat Biologist, Fisheries Biologist and LED Supervisor as appropriate.
- 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 utilize the compartment review or other public review process, the request for closure will be sent directly to the Ecoteam, and supervisors in the chain of command will be advised.
- Seek review and decision by the Ecoteam.
- If the Ecoteam approves closure, the LAD Lansing will receive written notification of the Ecoteam's decision including a map, Forest Road checklist, R 4503 and Forest Road Closure Review form, R 4504. LAD Lansing 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*** area, the tribal road closure notification process shall be followed. LAD Lansing will notify the DNRE Tribal Coordinator to make required tribal notifications.
- If the Ecoteam denies closure, the written decision is returned to the LAD manager and initiating Division.
- To rescind a non-emergency "Normal" Road Closure LUOD, the LAD Manager will request the Ecoteam to approve that the order be rescinded. If approved, the Ecoteam will submit a request to the LAD, Lansing to rescind the LUOD.

***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: _____

DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law DNRE – Recreation

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

Job Title/Division	Role
DNRE 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.
Ecoteams	Review proposal and forward road closure recommendations.
The Statewide Council	Address issues not resolved by the Ecoteam.
LAD Lansing	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, notify Ecoteams and Forest Supervisors of road closure recommendations, request Land Use Order of the Director (LUOD) for road closure.
Supervisors/DNRE	Complete Forest Road Closure Review form and Forest Road checklist. Spearhead local review of Forest Road Review form. Make recommendation at Compartment Review.
DNRE Tribal Coordinator	Make required 90 day notifications per 2007 Inland Consent Decree.
DNRE 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)
- Operations Inventory or IFMAP inspection

Records:

- 1) Water Quality Management checklist (R4501)
- 2) Ecoteam road closure recommendation
- 3) Forest Road Closure Review, R 4504
- 4) Forest Road Checklist, R 4503
- 5) Compartment Review Notes

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 5

Supersedes Version Dated: 5-5-09

Work Instruction Title: 5.1 Coordinated Natural Resource Management Research

Work Area Group: 5 - Research

Purpose:

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

Work Instruction:

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 utilized for preparation of an annual Research Summary to be published by March 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 utilizing 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:
 - ecological health, productivity, processes, and dynamics;
 - human uses, values, preferences, and dynamics;
 - new markets for forest products;
 - socioeconomic trends;
 - chemical efficiency, chemical use rate, and integrated pest management;
 - characteristics and dynamics of water budgets, hydrologic routing, sediment dynamics, and water quality;
 - ecological dynamics at the riparian, land-water interface;
 - effectiveness of wildlife management at multiple scales; landscape, forest stand, etc.;
 - effectiveness of fisheries management at multiple scales; watershed, segment, lake, etc.;
 - conservation of biological diversity (at multiple scales); and
 - effectiveness of Best (land) Management Practices for preservation, rehabilitation, and enhancement of ecosystem functions and components;
 - interactions among forest, wildlife, and fisheries management programs.
- A. 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.

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.

The Division Research Coordinators will meet on an annual basis to jointly review the summaries and discuss DNR research needs, opportunities, and implementation. The FMD Forest Health, Inventory, and Monitoring Unit Manager will facilitate the review and timely update of the Research Summary by March 1st of each year and will make the summary available to all DNR staff by posting on the DNR intranet. The Division Research Coordinators will provide required funding information to the FMD 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 – FMD DNR – Wildlife DNR – Fish DNR – Law DNR – Parks

Responsibility and Role:

Job Title/Division	Role
Research Coordinator/Wildlife	Conduct annual review of division research needs and activities
Research Coordinator/FMD	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
FMD Forest Certification Planner	Facilitate updating of the research summary
DNR Field Staff	Report newly discovered or permitted research to the Land Administering Division Research Coordinator

Note: FMD 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)

Item	Brief Description of Skill or Course	Exists/ New
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 FMD)
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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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Forest Certification Work Instruction
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Date of Draft Document:**Effective Date:** August 5, 2005**Revision Number:** 1**Supersedes Version Dated:** June 20, 2005

Work Instruction Title: 6.1 Implementing Public Information and Educational Opportunities on State Forests**Work Area Group:** 6 - Recreation and Education

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

Work Instruction:

- DNR personnel will respond to requests for technical information on State Forest management in a timely fashion.
- Freedom of Information Act Requests will follow DNR Administrative Procedures Series 19.
- DNR personnel will involve the Office of Communications regarding issues of high public interest.
- DNR will ensure public information and educational opportunities take place through participatory processes in State Forest management by conducting :
 1. Natural Resource Commission meeting
 2. Forest Management Advisory Committee meetings
 3. Open Houses
 4. Compartment Reviews
 5. Public information meetings on special projects and initiatives.
 6. Holding public hearings as required.
 7. Meeting with citizen advisory committees as appropriate.
 8. Establishing public input websites as needed.
- 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:
 - directly resolving the complaint if possible,
 - directing to appropriate specialists or managerial levels if necessary, and
 - following the compartment review decision appeals process.
- DNR staff will periodically conduct and evaluate surveys of public values relating to State Forest management.
- The Department of Natural Resources 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

- 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
 - Michigan Environthon
 - Arbor Day Celebrations
 - Kirtland’s Warbles Festival
 - other events
 - interpretive signing

- 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.

- 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 Communications
 DNR – FMFM 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
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 (forms IC-4423-2, PR-4420’s, PR-4421, and PR-4422’s)
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MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 2

Supersedes Version Dated: August 5, 2005

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

Work Area Group: 6 – Education and Recreation

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

Work Instruction:

- a) DNR is committed to comply with all applicable Federal, State, and local laws and regulations.
- b) Recreational opportunities on State Forest lands are integrated with forest management programs. Ongoing communications with Forest Unit Managers 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.
- c) DNR 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 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 Committee, Equine Trailways Subcommittee (ETS), Nonmotorized Advisory Workgroup (NAW), Off-Road Vehicle Advisory Workgroup (ORVAW) and Snowmobile Advisory Workgroup (SAW)
 - d. DNR resource divisions conduct reviews for resource impacts related to any proposed recreational project on state forest lands.
- d) DNR manages recreational uses to accommodate various demands.
 - Recreational activities on state forest lands include but are not limited to:

(See chart on next page)

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

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

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

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

Job Title/Division	Role
Recreation Specialist/FMD	Coordinate the planning, review by all divisions, development and monitoring of public recreation facilities and opportunities
Forester, Forest Technician, Fire Officer/FMD	Plan, develop & maintain public recreation facilities and opportunities
Manager/Supervisor, Field Stations/PRD	Plan, develop and maintain boating access sites and facilities
Park Interpreter/OC	Implement public outreach activities associated with major recreational opportunities on State Forest
Information & Education Coordinator/WD	Produce Hunting & Trapping Guides
Fisheries Biologist/FD	Produce Fishing Guides
Recreation & Trails Section Manager/FMD	Approve the planning and development of public recreation facilities and opportunities
Land Use Program Leader/FMD	Provide direction to staff and organizations that want to conduct recreational events on State Forest
Interpretive Manager/OC	Manage Michigan and Fishing Heritage Center
ORV Specialist/Trails Analyst FMD	Ensure that on the ground work by trail sponsors meets Department standards and specifications
Fire Supervisor/FMD	Plan, develop & supervise the maintenance of recreation facilities and opportunities
Unit Manager/FMD	Oversee all 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)

Item	Brief Description of Skill or Course	Exists/ New	
	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. Statewide Trails Initiative – March 1992 – *Provides for statewide trails overview.*
 2. Forest Recreation Plan – June 1995 – *Provides for non-motorized forest recreation*
 3. ORV Plan – 1979-. *2005 plan update and trail inventory underway.*
 4. Snowmobile Plan – *Annual updates VIA grant sponsor application; proposal for statewide program plan under review for 2005 implementation.*
 5. Assessment of Recreation and Trails – July 1999 – *Provides program overview and projected needs to support public recreation demands.*
-

Monitoring: Occurs at three levels

1. Forest Management Unit Level:
 3. Active management practices (i.e., prescriptions) conducted by WD/FD/FMD 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.
 4. T&E species reviews
 5. Monitoring quality of Operations & Inventory data.
 6. Inspections of Land Use Permits.
 7. ORV trail sponsors must monitor impacts and management actions.
 8. Snowmobile trail sponsors must monitor impacts and management actions.
 9. Campground inspections.
 10. Inspections of boating access sites and associated facilities.
 11. Road inspections
 12. Compartment Review/Open House process.
 13. Trail inspection reports
 14. BMP non-compliance reporting
 2. District / Eco-regional Level:
 15. public values expressed as a set of indicators to gauge management actions; also
 16. issues specific to landscape scales are addressed at this level (e.g., road closures).
 17. Enforcement of state laws and Department administrative rules through hunting & trapping, fishing, individual species, ORV, snowmobile, and marine guides.
 - 1) 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
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Forest Certification Work Instruction

Date of Draft Document:

Effective Date: February 7, 2006

Revision Number: 1

Supersedes Version Dated: June 20, 2005

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 FMFM 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:
 4. Loggers training subcommittee
 5. Inconsistent practices subcommittee
 6. Communications (public outreach) subcommittee
 7. Annual Report Subcommittee

2. Utilize 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.

1. The SIC FMFM 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 Communications
 DNR – FMFM 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 / FMFM	Assign Department representative to SIC
Department SIC representative / F M F M	Participate on the SIC
Others as assigned	Participate on SIC subcommittees
Forest Certification Specialist/ FMFM	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
		<input type="checkbox"/> E	<input type="checkbox"/> N

References:

2005-2009 SFI Standard
Management Review Process Work Instruction

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

Date of Draft Document:

Effective Date: 10-4-11

Revision Number: 6

Supersedes Version Dated: 4-6-10

Work Instruction Title: 7.1 Timber Sale Preparation and Administration Procedures

Work Area Group: 7 - Integrated Implementation and Contracting

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

Work Instruction:

I. 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.

II. 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.

- **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. Utilize Form R-4050 to:
 - Record pre-sale meeting date, attendance, and method (on-site or telephone)
 - Record name of SFE trained foreman and verification of core training.
 - 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.

- **Ongoing Inspections:** 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 or R-4050-1 (if additional space is needed) At a minimum, documentation should include:
 - Dates of inspections, visits, or other communication.
 - Payment unit start/finish dates.
 - Name of person recording remarks.
 - Agreements or details not specified in contract specifications such as landing locations, placement of skid-trails, etc.
 - 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. Document steps taken to correct “not acceptable” conditions.
 - All timber sale inspection reports will be kept as part of the timber sale record.

- 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.
- **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. 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.
 - There must be thorough documentation of “not acceptable” conditions and corrective actions during the term of the contract.
 - Summary comments on performance can be documented under “Overall Comments/Evaluation”.
- Additional instructions for evaluating some of the items on the Timber Sale Contract - Field Inspection Report follow:
 - **BMP’s.** The following items on the Timber Sale Inspection Form (R-4050) relate to BMP’s. Follow the guidelines in the BMP manual (Sustainable Soil and Water Quality Practices on Forest Land, 2009) when evaluating these features as follows:
 - 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.
 - Cleanup of Area. Check to be sure 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.
 - Soil Protection. Check to be sure that operations affecting soil erosion, compaction and rutting are in compliance with contract specifications.
 - 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.
 - BMP Applications. This is a general BMP category to consider anything related to BMP’s that has not specifically been addressed in the previous items. Restricting operations in RMZ’s and avoiding vernal pools are some examples of issues that should be checked here.
 - **Safety.** DNRE 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.
 - Logger safety. 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, will be monitored on all open timber sale contracts. The table, in conjunction with the explanations that follow, are to be used to assess worker safety on each timber sale.

Personal Protective Equipment Checklist							
Activity	Leg Protection	Hard Hat	Safety Boots/Shoes	Eye Protection	Face Screen	Hearing Protection	Gloves
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	
DNRE 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**

- 1) 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.
- 2) 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.

- Administration of safety. Personal protective equipment must be properly used by all personnel and contractors regardless of MIOSHA jurisdiction. DNR staff on State timber sales with open contracts must comply with this standard after any on-the-ground work has started. (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.
- 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.
- **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 staff that have a current certificate of completion of Michigan Sustainable Forestry Education (SFE) or Wisconsin Forest Industry Safety and Training Alliance (FISTA) training.

The current status of training – signified by a certificate - will be verified at the pre-sale meeting with the sale administrator, documented on the Timber Sale Inspection form, and checked periodically utilizing the sources listed below (see also Monitoring section of this work instruction). “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”.

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

Logger Training Requirements	
SFI Training Standard	Contacts
Michigan - Certificate of Completion for SFE training	<ul style="list-style-type: none"> • Check the SFI training data base using the SFI training spreadsheet provided by the Forest Certification Specialist and/or the SFE electronic data base at http://www.michiganforest.com/training (logon address and passwords are available from the Forest Cert Specialist). • For additional follow-up on UP and LP SFE training records, contact the Forest Certification Specialist or Julie Harwood with the MSU Cooperative Extension Service at 866-339-1587.

Wisconsin <ul style="list-style-type: none"> • Certificate of Completion for Qualified Logging or Resource Professional training 	For FISTA training records contact Amy Marquardt, 800-551-2656.
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- **Aesthetic Considerations** that were noted in the Pre-sale Checklist and/or specified in the contract should be evaluated for compliance.
- **Fire Prevention.** Operations relating to contract provisions that apply restrictions for the purpose of reducing fire risks should be evaluated.
- **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.
- 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.
- 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: _____

DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law

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

Job Title/Division	Role
Foresters, Forest Technicians / FMD	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 / FMD	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 OI prescriptions.
Wildlife Biologists and Technicians / WLD	Report non-conformances or other issues to unit manager.
Fisheries Biologists and Technicians / FD	Report non-conformances or other issues to unit manager.
Conservation officers / LED	Enforce state law and address violations.
Timber Sales Program Leader / FMD	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)

7.1 Timber Sale Preparation and Administration Procedures

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

References:

- Policy 251, March 2000, Sales and Removal of Timber
- Michigan DNR, 1994. Water Quality Management Practices on Forest Land. (BMP manual)
- 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.
- Sustainable Forestry Education: <http://wildfire.for.msu.edu/extension/sfe.htm>
- Within-Stand Retention Guidance, IC 4110
- Forest Certification Green-Up Guidelines, 7-12-06
- Michigan Woody Biomass Harvesting Guidance

Monitoring:

- Unit managers perform QA/QC function, Inspection forms (R-4050), Timber sale completion reports
- SFE training data contact Julie Harwood, 866-339-1587
- 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)

Forest Certification Work Instruction**Date of Draft Document:****Effective Date:** August 5, 2005**Revision Number:** 1**Supersedes Version Dated:** June 20, 2005**Work Instruction Title:** 7.2 Legal Compliance and Administration of Contracts**Work Area Group:** 7 - Integrated Implementation and Contracting

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.

Work Instruction:**Legal requirements:**

- 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.
 - 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. Further direction is provided via these work instructions.
- Legal and other Requirements shall be reviewed through the annual Management Review process.
- Protection from illegal activities.
 - 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.
 - 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.

Contract fairness:

- 1) Equal access, equal opportunity, fair labor laws
 - a) Michigan's Equal Employment Opportunity Plan provides fair employment and training opportunities to DNR employees
 - b) 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.
 - c) State and department purchasing policies require service and commodity contractors to comply with all applicable state and federal labor laws.
 - d) 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.
- 2) Insurance requirements
 - a) Timber Sale policy requires that stumpage purchasers complete DNR, FMFM 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.

- b) 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.
- 3) Dispute resolution
 - a) 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.”
 - b) 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.

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 – FMFM 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/FMFM	Propose and administer Department contracts.
Unit Managers/FMFM	Approve contract proposals. Process notices of illegal activities. Supervise administration of contracts and implementation of this work instruction.
FMFM Division office	Approve contract proposals. Maintain contract documents.
Contract administrators	Administer insurance, safety and BMP training requirements of contracts.
Recreation Section leader/FMFM	Provide BMP requirements and training to grant sponsors.
Conservation officers/LED	Enforce state law and address violations.
Other DNR staff	Provide FMFM 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
- Information circulars for firewood permits, FMFM Word template IC-4166

- DNR policy 19.05 dated 9-13-2004, Safety Program – Personal Protective Equipment Policy
-

Monitoring:

- 1) Trail inspection reports.
 - 2) DNR vendor database
-

Records:

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

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 4-6-10

Revision Number: 3

Supersedes Version Dated: 6-29-07

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

Work Area Group: 8 - Training

Purpose:

- (1) Provide training to empower employees to perform their jobs to the level required by DNRE 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) Utilize the training database to routinely monitor that training is up-to-date.
 - (4) Communicate regularly with DNRE employees to ensure understanding of this work instruction.
-

Work Instruction:

- **Job training needs will be determined.**
 - Training Officer annually reviews training needs.
 - Training Officer maintains a table of core training needs by program area according to the policies, procedures, and work instructions of each division.
 - Training Officer shall annually assess gaps in training and compile a prioritized list by program area.
 - Training Officer shall inform employees of scheduled training courses and opportunities.
 - The Training Advisory Team (TAT) shall publish on the intranet the annual department training report.
 - 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 DNRE Personnel Manual 21.10.02 and divisions' policies.
 - Additional learning needs recognized by the division Management Team will be added to the training plan.
- **Training implementation.**
 - Training officer schedules annual training and informs supervisors and employees of the schedule.
 - Supervisors ensure training completion.
 - Employees shall inform Training Officer of completion of all required training and of any additional training completed, with the exception of department or division sponsored training in which there was a sign-in sheet.
 - Department and division trainers shall notify 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.
- **Training records will be maintained by the Division and shall be accessible to employees.**
 - Division Training Officer will maintain training records to ensure training is up to date within 30 days of course completion.
 - Training Officer will provide training records to supervisors and their employees on request.
 - 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: _____

DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law DNRE – Recreation

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

Job Title/Division	Role
Training Officers	Determine 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.
Employees	Assist in identification of needed training during performance appraisal system. Attend training and notify training officer 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](#)
- FMD 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 AND ENVIRONMENT

Forest Certification Work Instruction

DRAFT FINAL

Date of Draft Document:

Effective Date: 4-6-10

Revision Number: 2

Supersedes Version Dated: 5-5-09

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

Work Area Group: 9 – Tribal Issues

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.

Work Instruction:

- a. The DNRE Director will appoint a statewide coordinator for tribal issues. Division coordinators in FMD, Wildlife, Fisheries, and Law Enforcement Divisions will be appointed by the DNRE 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.
- b. DNRE 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.
- c. Tribal contacts and involvement in tactical forest land management activities:
 - DNRE will seek a description of traditional geographic areas of interest for each of the federally recognized Michigan Tribes.
 - The 12 federally recognized Michigan Tribes will be invited to DNRE FMU open houses, and will be notified of Compartment Reviews. FMD Unit Managers will be responsible for appropriate written notifications.
 - The 12 federally recognized Michigan Tribes will be invited to participate in statewide and ecoregional public planning events. The Ecoregional Teams shall make direct contact in regard to Department regional state forest planning and other initiatives.
 - 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.
 - 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, DNRE 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 Office of the State Archeologist.

- 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.
- DNRE staff who have 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:
 - A. date
 - B. type of contact (letter, meeting, workshop, telephone)
 - C. DNRE staff involved, tribe and tribal representatives involved
 - D. purpose of meeting
 - E. decisions made
 The Statewide Coordinator for tribal issues shall monitor and track Department interaction and collaboration.

- Stand examiners must check the DNRE 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.

d. 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.

e. 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 DNRE 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 MDNRE and the Tribes. The MDNRE shall notify and consult with the Tribes before permanently closing an approved access road or trail. In the event that the MDNRE establishes a program for seasonal closures of approved access roads or trails, the MDNRE 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: _____

DNRE – FMD DNRE – Wildlife DNRE – Fish DNRE – Law DNRE – Recreation

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

Job Title/Division	Role
Statewide Coordinator for tribal issues / DNRE	Coordinate tribal issues among DNRE Divisions. Seek a description of traditional geographic areas of interest for each of the federally recognized tribes.
Unit Manager / FMD	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 Coordinator for Tribal Issues / FMD, LED, WLD, FD	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.
Ecoteam Chairs	Ensure tribes are contacted, informed, notified, and invited to participate in regional state forest planning and biodiversity initiatives.
Division Chief / FMD, WLD, FSH, LED	Appoint Division coordinators for tribal issues
District Managers/ Unit Managers/ Tribal Coordinators	Regular contact with the federally recognized Michigan tribes to identify and discuss issues of common interest.
FMD Division Coordinator for Tribal Issues	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 DNRE staff.
District Planning and Inventory Specialists/ FMD	Annual update of ecoregional tribal contact lists.

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

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

References:

1. Eight primary Indian Treaties and related court decisions,
2. OI Field Manual Chapter 7, FMD policy and procedure #251, Section j.
3. State Forest Resource Assessment Procedure Information Circular 4123
4. 2007 Inland Consent Decree

Monitoring:

- Internal Audit

Records:

- Treaty maps maintained by the DNRE Statewide Coordinator for Tribal Issues
- Tribal points of contacts maintained by the DNRE 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