

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

DRAFT FINAL

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Work Instruction Title: 1.6 Forest Management Unit Analyses

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

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

Work Instruction:

1. Pre-Inventory Data Analyses

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

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

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

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

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

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

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

2. The Pre-Inventory Meeting

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

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

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

3. Inventory of YOE Compartments

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

4. The Pre-Review Meeting

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

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

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

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

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

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

5. The Compartment Review

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

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

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

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

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

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

References:

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

Monitoring:

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

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