



# GREAT LAKES REGIONAL MICHIGAN MASTER LOGGER FIELD AUDIT FORM

Revised January 1, 2023/ Recertification Version

<b>Applicant's I.D. #:</b>		<b>Date Audited:</b>
<b>Field Verifier's I.D. #:</b>	<b>Acres:</b>	<b>Site I.D.</b>

The purpose of this form is to document an applicant's field compliance and conformance with standards and practices that have been adopted for the Master Logger Certification program in Michigan. For technical information, refer to the Sustainable Soil and Water Quality Practices on Forest Land handbook.

<b>Job Overview</b>	
<b>Job Type:</b> <input type="checkbox"/> Active <input type="checkbox"/> Inactive <input type="checkbox"/> Complete	<b>Ownership:</b> <input type="checkbox"/> Private <input type="checkbox"/> Tree Farm <input type="checkbox"/> Industry <input type="checkbox"/> County <input type="checkbox"/> State <input type="checkbox"/> USFS <input type="checkbox"/> Other (Explain):

<b>Type of Harvest/Species:</b>	<b>Visual Sensitivity</b>
<input type="checkbox"/> Uneven <input type="checkbox"/> Even ➤ Shelterwood <input type="checkbox"/> ➤ Clearcut <input type="checkbox"/> ➤ Seed Tree <input type="checkbox"/> <input type="checkbox"/> Intermediate <input type="checkbox"/> Land Use Change <input type="checkbox"/> Type Conversion Explanation (if necessary)	<input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High <b>Water &amp; Soil Conditions:</b> <input type="checkbox"/> None <input type="checkbox"/> RMZ <input type="checkbox"/> Wetland <input type="checkbox"/> Stream Crossing <input type="checkbox"/> Rock Outcrops <input type="checkbox"/> Soil Condition (Please Describe) <b>Cutting Method:</b> <input type="checkbox"/> Hand <input type="checkbox"/> Hand Felling Review Sheet completed for this sale <input type="checkbox"/> Machine-CTL <input type="checkbox"/> Machine-Tree Length <input type="checkbox"/> Machine Specifics Review Sheet completed for this sale

<b>Topography:</b>	<b>Type of Sale:</b>	<b>Roads:</b>
<input type="checkbox"/> Steep Slopes <input type="checkbox"/> Rolling <input type="checkbox"/> Level	<input type="checkbox"/> Forester Marked Sale <input type="checkbox"/> Forester Unmarked Prescription Sale <input type="checkbox"/> Logger's Choice Sale <input type="checkbox"/> Logger's Forester Marked Sale	<input type="checkbox"/> New <input type="checkbox"/> Pre-existing (Used as Is) <input type="checkbox"/> Pre-existing (Upgraded) <input type="checkbox"/> No Roads (Skidding Only)

<b>Harvesting Activities Conducted By:</b>	<b>Goal and Future Desired Condition of the Timber Sale Area:</b>
<input type="checkbox"/> Applicant <input type="checkbox"/> Employee(s) <input type="checkbox"/> Independent Contractor(s)	

Write a brief comment about each standard for which you felt applicant was not in compliance and for those standards for which you felt compliance exceeded general expectations on Page 2. Use additional sheet(s) if needed.

\*If marked with a + or -, auditor shall explain why these rankings were given. Photographic evidence, where applicable, is appreciated.

## DESCRIPTION OF FINDINGS

### Overview of Sale #1

[Enter brief description of sale structure, any positive or negative sale attributes, etc.]

#### 1. SOIL AND WATER

1. A. ROADS

1. B. LANDINGS

1. C. SKIDDING/FORWARDING

1. D. STREAMS AND STREAM CROSSINGS

1. E. RMZs AND WETLANDS

1. F. SPILLS

#### 2. MANAGEMENT PRACTICES

2. A. TIMBER SALE CONTRACT

2. B. HARVEST PLAN

2. C. SILVICULTURAL GUIDELINES

2. D. UTILIZATION

2. E. OPERATION

2. F. AESTHETICS AND OTHER MANAGEMENT CONCERNS

2. G. WILDLIFE /BIODIVERSITY

2. H. WOODY BIOMASS HARVESTING

### 3. SAFETY

#### 3.A. SAFETY

##### Hand Felling Operation (One Column per Feller)

S1	S2	S3		
			Adequate Notch Opening	M, NM, NV
			Notch Cuts Match	M, NM, NV
			Adequate Hinge	M, NM, NV
			Feller is Safely Away from Tree as it is Falling	M, NM, NV

S1	S2	S3		
			Chainsaw has Proper Safety Features	M, NM, NV
			First Aid Kit Availability	M, NM, NV
			Starting Technique	M, NM, NV
			Safe Delimbing (Operating on Opposite Side of Tree or with Feet Planted)	M, NM, NV

##### Machine (One per Machine)

State the type of Machine referred to in each column: M1: \_\_\_\_\_ M2: \_\_\_\_\_ M3: \_\_\_\_\_

M1	M2	M3		
			Seat Belts Installed	M, NM, NV
			Seat Belts Used	M, NM, NV
			Blade, grapple, or cutting head is on Ground when Machine is Parked	M, NM, NV
			All Stored Energy is Released on Parked Machines (Lockout)	M, NM, NV
			Vacuum Pump functional	(Y/N/NA)
			Fire Suppression System functional	(Y/N/NA)
			Falling Object Protection	M, NM, NV
			Sufficient signage	M, NM, NV

M1	M2	M3		
			Spill Kit	M, NM, NV
			Hydraulic Hose Maintenance	M, NM, NV
			Fire Extinguisher on Machine was Properly Charged	M, NM, NV
			No Debris on Machine (Fire Hazard)	M, NM, NV
			Rollover Protection	M, NM, NV
			First Aid Kit Availability	M, NM, NV
			Hard Hat worn	M, NM, NV
			Hard Hat available	M, NM, NV

### 4. GOVERNMENT REGULATION

#### 4.A. PESTICIDE APPLICATION

### 5. OTHER ISSUES

#### SITE INSPECTION INSTRUCTIONS:

Using the following code, respond to each standard:

<b>CE*</b>	<b>Consistently Exceeds</b>	<b>IM *</b>	<b>Inconsistently Meets</b>	<b>NL</b>	<b>Not Logger's Responsibility</b>
<b>PE*</b>	<b>Periodically Exceeds</b>	<b>NM *</b>	<b>Does not meet</b>	<b>NV</b>	<b>Not Observed/Viewed</b>
<b>M</b>	<b>Meets</b>	<b>NA</b>	<b>Not Applicable</b>		

### 1. SOIL AND WATER

#### 1.A. ROADS

☐ None ☐ Constructed by someone else. Constructed By:

1.		Roads are planned to minimize their number, width, length, and the total area disturbed.
2.		Road surfaces are crowned, out sloped, or in sloped to provide adequate drainage.
3.		Roads are located on well-drained soils, outside of riparian management zones where possible.
4.		Road grades do not exceed 10%. If greater than 10%, grade lengths are minimized, and drainage structures are used to minimize erosion.
5.		All roads have appropriate drainage structures that are properly installed, accounting for steep slopes and wetlands (including appropriate use of filter strips).
6.		Roads follow natural contours.

7.		Culverts are properly sized and are installed at correct depth, angle, and location to provide effective cross-drainage.
8.		Existing roads have been relocated to improve access and/or reduce erosion impacts.
9.		Existing roads have been improved to provide adequate drainage and safety.
10.		Cut/fill banks near or in RMZ's and wetlands are properly stabilized.
11.		Exposed soil areas are leveled and seeded post-harvest
12.		Steep grades and erodible soils are surfaced to minimize surface erosion.
13.		Ditches are adequate to handle water runoff from the road.
14.		Broad-based dips and water bars are installed properly in the correct locations.
15.		Roads and landings are seeded (if required by contract) to prevent erosion.

#### 1. B. LANDINGS

1.		Landings are located to protect RMZ's and wetlands.
2.		Landings are designed to provide efficient drainage off of the landing area.

#### 1. C. SKIDDING/FORWARDING

1.		Topography is considered in skid trail layout to avoid steep areas (over 20% slope) and wet areas, when possible.
2.		To avoid soil compaction and/or rutting when operating in soft, wet, or steep areas, steps are taken to minimize rutting and erosion (use of seasonal operations, using top and slash as matting, etc.)
3.		Water turnouts/bars are used to divert surface runoff when necessary.
4.		Rutting from skidding is not excessive
5.		Slash is kept out of drainage areas where runoff may wash it into streams, wetlands, or water bodies.

#### 1. D. STREAMS AND STREAM CROSSINGS

Stream crossings are in accordance with the Michigan Best Management Practices manual.

☐ None ☐ Stream crossing installed by someone else

1.		Stream crossing permit has been issued and followed.
2.		Number of stream crossings is minimized
3.		Appropriate stabilization practices are used to minimize soil erosion into streams.
4.		Design and construction avoids disruption of passage for fish and other aquatic life.
5.		Stream crossing is installed at a right angle to the stream channel.
6.		Stream channel changes are minimized, and banks are kept intact.
7.		Culverts have appropriate diameter and length for the stream size and road width.
8.		Culverts are properly installed with enough fill covering them.
9.		Road drainage is diverted into an appropriate filter strip.
10.		Stream crossing approaches are properly stabilized to minimize sedimentation.
11.		Temporary crossing structures are properly anchored to prevent washouts and to facilitate removal when no longer needed.
12.		Pole fords or other temporary crossings are removed immediately after use.
13.		Natural fords (water crossings) have low stream banks and firm rock/gravel base.

#### 1. E. RMZS AND WETLANDS

Riparian management zones and wetlands are managed per the Michigan Best Management Practices manual.

☐ None ☐ RMZ was established by another party

1.		RMZ's are properly identified and established.
2.		Harvesting is timed for appropriate conditions to minimize rutting & compaction damage.
3.		Slash from uplands is not deposited in wetlands.
4.		No slash is deposited in RMZ's, lakes, ephemeral ponds, or streams.
5.		Logger left trees of appropriate species and stocking within RMZ to comply with BMP guidelines.
6.		Appropriate restricted equipment operation zones are established and/or observed for RMZ's
7.		Roads are located outside of RMZ's, except for stream crossings.

8.	No borrow pits are located within RMZ's
9.	Wetland roads/landings conform to Michigan BMP standards.

## 1. F. SPILLS

1.	Spill(s) on site
2.	Spill plan is in place and known by all workers
3.	Spill kit is maintained and on the logging site (active sales)

## 2. MANAGEMENT PRACTICES

### 2. A. TIMBER SALE CONTRACT

A written contract or written agreement exists for each harvesting site

1.	Contract or agreement is signed by both seller and purchaser and all amendments are initialed by all parties
2.	Contract includes the basic categories of an acceptable timber sale contract such as the Sample Master Logger Timber Harvest Contract, or as listed in Michigan Forest Management Guidelines, Appendix B.

### 2. B. HARVEST PLAN

At a minimum a harvest plan is required for the specific site on which the timber harvest occurs (could be sale contract or prospectus).

A written management plan is desirable for the property but not required.

1.	Harvest plan includes landowner objectives for the harvest site.
2.	Harvest plan describes the site including terrain, soils, water issues, roads, skid trails, culverts & stream crossings, and sensitive areas (endangered resources/wildlife concerns)
3.	Harvest plan includes a map of the harvest site showing pertinent features, access routes, landing areas, cutting and treatment areas, etc.
4.	Harvest plan describes cutting method, designated species, and how trees are designated.
5.	Harvest plan is present on active logging sites and logger/logging crew is familiar with it.

### 2. C. SILVICULTURAL GUIDELINES

Acceptable silvicultural guidelines are followed for the tree species or timber types on the sale.

1.	Acceptable cutting system was used for the timber type that is compatible with landowner objectives.
2.	For harvest cuts, regeneration was considered and planned for.
3.	For thinning's and selective (all-aged) harvests, residual basal areas are within acceptable ranges (see DNR silvicultural guidelines).

### 2. D. UTILIZATION

Trees are utilized to the extent that current wood markets permit.

1.	Marked or designated trees are harvested.
2.	Stump pull and split logs are minimal.
3.	All merchantable wood is utilized to contract specifications.
4.	All cut wood products are forwarded to the landings.
5.	Cut wood products are hauled from the landings (inactive and completed sales).

### 2. E. OPERATION

Woods operations protect soil integrity, residual stands and/or provide for regeneration.

1.	Felling and skidding damage to residual trees is minimized (roots, boles, crowns).
2.	Slash and tops are deposited to minimize damage to advanced tree regeneration.
3.	All harvesting and residual slash within property boundaries
4.	High stumps minimized (<10" or half of stump diameter for trees >10" in diameter)
5.	Butting is minimal and reasonable where it does occur (butt-offs consist of rot, flares, and crooks)

### 2. F. AESTHETICS AND OTHER MANAGEMENT CONCERNS

1.	Landowner's aesthetic concerns or goals are discussed and incorporated into sale design.
2.	Slash height meets contract specifications.

3.		On regeneration harvests, employed irregular boundaries, feathered edges, leave trees or islands have been employed and met landowner's aesthetic goals
4.		Root wads, slash piles and muddy road exits on all haul roads are minimized to reduce negative visual impacts
5.		Hangers, spring poles, high stumps (multiple), and jack straws have been eliminated
6.		No garbage or waste left on site
7.		Land boundary markers or other unique features or structures are not damaged
8.		Special site considerations are identified and protected (geological, historical, archeological, cultural, natural areas, etc.)
9.		Pre and post-harvest meetings held with owner/forester regarding harvesting practices and if applicable, practices are specified

## 2. G. WILDLIFE /BIODIVERSITY

1.		Landowner's wildlife concerns or goals are discussed and incorporated into sale design.
2.		Snag/cavity tree retention
3.		Mast tree retention
4.		Thermal cover retention
5.		Raptor nest tree protection
6.		Tree species diversity maintenance
7.		Protect springs and seeps
8.		Create irregular edges
9.		Opening retention or establishment
10.		Protect/buffer vernal ponds
11.		Retain clumps or patches of residual trees in clearcuts
12.		Known threatened and endangered species concerns are met

## 2. H. WOODY BIOMASS HARVESTING

Woody biomass was removed from the site: ☐ No ☐ Yes (if yes, fill out 1 and 2 below)

1.		Soil types were identified prior to biomass removal.
2.		Adequate fine woody debris was left on site.

## 3. SAFETY

### 3. A. SAFETY

1.		Logging Operations/Log Truck signage is posted on active sales
2.		Appropriate personal protective equipment (PPE) worn for task performed
4.		Proper fire prevention/suppression equipment is on site
5.		Appropriate first aid kits are located on job site. * see list in Appendix A
6.		Safety hazards are eliminated as soon as possible from harvesting sites, landings, trails, and roads.
7.		One SFI "Qualified Professional" is present on each active logging site.

## 4. GOVERNMENT REGULATIONS

### 4. A. PESTICIDE APPLICATION

Pesticide application was performed on this sale ☐ No ☐ Yes (if yes, fill out 1 and 2 below)

1.		Permit was available
2.		Application was done only by applicators listed on the permit

## 5. OTHER ISSUES

1.		
2.		
3.		
4.		
5.		