



AEM Tier 2 Worksheet

Forest Management

Glossary

Article 24 Freshwater Wetlands: Wetlands protected under the NYS Freshwater Wetlands Act. They are generally 12.4 acres or larger. Smaller wetlands may also be protected under this Act if the NYSDEC Commissioner has determined that they have unusual importance locally. A permit is needed for any action within 100 ft. of an Article 24 wetland that infringes on or significantly affects the wetland. Freshwater wetland maps are on file with local government and NYSDEC Regional offices.

Equipment Limitation: Reflects the characteristics and conditions of the soil that restrict use of equipment generally needed in woodland management or timber harvesting.

Erosion Hazard: The probability that erosion will occur from timber harvesting activities if the soil is exposed.

Forest Road: A road passable to log trucks, between a publicly-maintained road and the landing, to which harvested forest products are brought from the woods. Also known as a haul road, logging road or access road.

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Background

Timber harvesting and other forest management activities can have minimal impacts on water quality if properly planned and carried out. However, poor logging practices such as improperly-designed and constructed logging roads, skid trails, log landings and stream crossings, can cause excessive soil and stream bank erosion. The resulting sediment deposition in streams and other water bodies can damage fish habitat and spawning areas, and result in flooding downstream. Removal of trees in streamside riparian zones raises water temperatures, negatively affecting fish and other aquatic life.

Usually, water quality problems caused by timber harvesting operations are directly related to a logger's difficulty in operating on the site. Soil maps, topographic maps, wetland inventories and classified stream maps can all help identify high risk areas before logging begins -- thus preventing most water quality problems.

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Agricultural Water Quality Principle:

When forest products are removed from a woodlot, care should be exercised to ensure that logging roads, skid trails and landings are properly designed and located to minimize erosion and protect water quality. Forest harvest plans should ensure that a forested buffer zone is maintained along streams to protect stream banks from erosion, filter pollutants, and provide shade to the stream -- keeping the water cooler during the summer months.

Glossary Continued...

Landing: Loading area where logs are gathered, cut to length, sorted and loaded on trucks for transport to a mill.

Skid Trail: Roads or trails upon which logs are skidded from the stump to a processing area or landing. Trail surfaces are rough and may be subject to erosion.

Slope Percent: The angle of a hill expressed in terms of percent. A vertical rise of one foot and a horizontal distance of one foot equals a 100 percent or 45-degree slope.

Protected (Classified) Stream: Certain waters of the state are classified and protected on the basis of existing or expected best usage of these waters. If your project affects waters of the state that are referred to as “protected streams” or “protected waters,” you are subject to the stream protection restrictions under the Protection of Waters regulations.

Streamside Management Zone: Areas next to streams, ponds, lakes, wetlands and other water bodies where forest harvesting activities are modified to protect water quality, fish, and other aquatic resources. Width of the zone should be $50' + 4' \times (\% \text{ slope})$.

Water Bar: A ditch, 12-36 inches deep, cut across a dirt road or skid trail at approximately a 30-degree angle to the perpendicular of the centerline of the road, for the purpose of diverting water flowing down the road into the forest. This reduces erosion of the road or skid trail.

Background Continued...

The planning and use of Best Management Practices, or BMPs, can also prevent and minimize water quality problems resulting from timber harvesting operations. These simple, often low-cost practices and techniques are described in the pocket guide *New York State Forestry Best Management Practices for Water Quality/ BMP Field Guide*, which is available from the NYS Department of Environmental Conservation (NYSDEC). The field guide is meant to be used as a menu of options to consider when planning and constructing logging roads, log landings, skid trails and stream crossings. Contact your NYSDEC regional forester for advice on the best methods for harvesting your timber.

AEM Tier 2 Worksheet: Forest Management		Potential Concern			
Factors Needing Assessment:	Lower 1	2	3	4	Higher
Part 1: Planning for Timber Harvesting Activities					
Does the landowner have a forest management plan to guide timber harvesting activities?	Forest management plan prepared by professional forester includes appropriate Best Management Practices for proposed silvicultural activities. All work done under supervised contract.				No forest management plan has been prepared. AND No timber sales contract is used.
Part 2: Evaluating Environmental Risk from Future Timber Harvesting Activities					
Where will timber harvesting activities be conducted?					
What is the slope?	0-8%	8-25%	25-35%	Greater than 35%	
What is the distance of forest roads, landings and skid trails to the nearest water body?	Greater than 200 feet.	150-200 feet	50-149 feet	Less than 50 feet.	
What is the water use classification of the nearest water body?	D	C	B, C (T)	A, AA	
Are there wetlands nearby?	No Article 24 freshwater wetlands within 100 feet of timber harvesting activities.			Article 24 freshwater wetlands within timber harvesting area.	

AEM Tier 2 Worksheet: Forest Management Continued		Potential Concern			
Factors Needing Assessment:	Lower 1	2	3	4	
Part 2Continued: Evaluating Environmental Risk from Future Timber Harvesting Activities					
Are there soil limitations on the site?					
Soil information is available from your county Soil Survey Report, published by the USDA Natural Resources Conservation Service.					
Soil Texture	Coarse-Grained Gravel	Fine gravel, coarse sand.	Find sand and clays	Silts and organic soils.	
Soil Drainage Class	Well-drained and excessively-drained.	Moderately well-drained.	Somewhat poorly-drained.	Poorly-drained and very poorly-drained.	
Erosion Hazard	Slight		Moderate	Severe	
Equipment Limitation	Slight		Moderate	Severe	
Part 3: Environmental Risk from Existing Timber Harvesting Activities					
Are roads, skid trails and log landings properly designed and laid out?	Soils, topographic and wetland maps were used to help plan location of roads, trails and landings to minimize environmental impact. Water is diverted off logging roads and skid trails and around landings. Landings are on gentle slopes and at least 200 ft. from the nearest water body. No evidence of sedimentation from logging roads and skid trains entering water bodies during timber harvesting operations.			Skid trails, landings, road locations and drainage not properly planned or designed. No erosion or sediment control provisions made. Sediment from eroding skid trails and logging roads is entering water bodies. Landings are located within 200 ft. of a water body.	

AEM Tier 2 Worksheet: Forest Management Continued		Potential Concern		
Factors Needing Assessment:	Lower 1	2	3	Higher 4
Part 3 Continued: Environmental Risk from Existing Timber Harvesting Activities				
Are stream crossings adequately planned?	Stream crossings are kept to a minimum. No skidding across permanent streams unless permanent or temporary stream crossing structures are utilized. If a NYS “protected stream” is present, stream disturbance permit is obtained from NYSDEC for crossings.	If unimproved crossings are used, they are located on a stable, rocky portion of the stream channel. AND Crossings have low, stable banks and gentle approach slopes.		No stream protection permit has been obtained for crossings. OR Stream crossings are poorly planned, with high potential for major damage at crossing sites. OR Skidding is done in stream channels.
Are streamside management zones adequately protected?	Streamside management zones are marked. Timber and tops that accidentally fall into streams are removed by winching above the high water mark. Skidders are kept at least 50 ft. away from streams.		Stream management zones are unmarked. Trees are cut within 10 ft. of stream banks.	Logging slash is left in streams. No buffer is maintained along stream banks.
Are timber harvesting operations properly timed?	Logging is done during dry weather or when the ground is frozen or snow covered. Road sections are stabilized during the same operating season.	Use of heavy equipment is limited during very wet periods. Logging operations are shut down during winter or spring thaws.		Logging occurs during wet periods and/or winter or spring thaws.

AEM Tier 2 Worksheet: Forest Management Continued		Potential Concern		
Factors Needing Assessment:	Lower 1	2	3	Higher 4
Part 4: Post-Harvest Operations				
What is the condition of the site after harvest?	After logging, landings, roads and primary skid trails are regraded, water bars installed as necessary, disturbed areas seeded and roads closed to off-road vehicles. Slash, debris and vegetative material left on-site after harvesting does not present a fire or pest hazard.			Exposed soils that are prone to erosion are not stabilized, seeded, and mulched at end of harvesting operations. Fire or pest hazards exist. Off-road vehicles have unrestricted access.

Part 5: Other Issues

1. Are livestock allowed free access to the woodlot?
2. Is the woodlot enrolled under Forest Tax Law?