

Kentucky's Best Management Practices Minimum Requirements 11/2016

BMP 1 Access Roads, Trails, and Landings

Location, Construction, Maintenance

- 1.1 *Access roads* and *trails* shall be constructed to minimize grade.
- 1.2 To avoid runoff from entering *streams* or *channels* access roads and trails shall be located, constructed, maintained and *water control structures* installed at appropriate intervals to drain surfaces, reduce erosion of road and trail surfaces and the undisturbed forest floor.
- 1.3 *Landings* shall be constructed to drain and avoid runoff from entering streams or channels.
- 1.4 Skidders or other logging equipment shall not be operated under conditions that may cause the development of ruts that contribute to water quality degradation and cannot be resurfaced with *available equipment*.
- 1.5 Practices shall be implemented to control erosion that can deliver sediment to streams or channels from disturbed ground other than roads, trails, and landings.

Stream Crossings

- 1.6 Where economically and/or topographically feasible, *elevated crossings* (ex. bridges, culverts, pole crossings, etc.) shall be used when crossing streams (perennial and intermittent) and *ephemeral channels*.
- 1.7 If it is not feasible to install an elevated crossing, *fords* with firm and/or protected stream or channel beds shall be used to cross streams and channels at right angles.
- 1.8 Avoid depositing soil into the stream or channel.
- 1.9 Immediately *stabilize* disturbed ground associated with crossings (excluding the active trail or road surface) to reduce runoff into streams.

Retirement and Inactive Jobs

- 1.10 On roads, trails, and landings that are *temporarily inactive* practices shall be promptly implemented to minimize erosion and runoff entering streams or channels.

- 1.11** Upon completion of harvesting activities *permanent retirement practices* shall be implemented on roads, trails, and landings and other areas of disturbed ground to minimize erosion and runoff from entering streams or channels. Permanent retirement practices include the use of appropriate practices including: resurfacing, removing *berms* and other impediments to allow drainage and correct installation of permanent water control structures to drain surfaces and minimize erosion; removal of temporary stream and channel crossings; correct installation of permanent water control structures to drain surfaces and minimize erosion; and seeding and measures to promote the development of vegetative cover that may include one or more of the following; loosening compacted soil, fertilization, mulching, or liming.
- 1.12** After silvicultural and harvest activities are completed landowners should restrict vehicle access on retired roads, trails and landings until the site is stabilized.

BMP 3 Streamside Management Zones (SMZ)

In areas adjacent to *perennial* and *intermittent streams*, lakes, or other *water bodies*, the use of *streamside management zones* (SMZs) is required. Management activities are acceptable within SMZs however SMZ requirements for perennial, intermittent, and *coldwater aquatic habitats* must be followed. SMZ requirements include maintaining *original overstory trees* and minimum surface distances from the bank, with the exception of designated crossings, where the construction and/or use of roads, trails, and landings is avoided where feasible.

SMZ Perennial Streams and Water Bodies

- 3.1** Adjacent to perennial streams and perennial water bodies SMZs require retention of 50 percent of the original overstory trees for minimum surface distances of 25 feet on ground with less than 15% slope and 50 feet for ground with more than 15% slope.
- 3.2** Adjacent to perennial streams and perennial water bodies SMZs require minimum surface distances for roads, trails, and landings of 50 feet on ground with less than 15 percent slope and 100 feet for ground with greater than 15 percent slope.
- 3.3** In areas adjacent to designated *coldwater aquatic habitats* SMZs require the retention of 75 percent of the original overstory trees and a minimum surface distance for roads, trails, and landings of 100 feet regardless of slope. Disturbance of understory vegetation in coldwater aquatic habitat SMZs should be minimized.

SMZ Intermittent Streams

- 3.4** Adjacent to intermittent streams or other intermittent water bodies SMZs require minimum surface distances for roads, trails, and landings of 50 feet on ground with less than 15 percent slope and 100 feet for ground with greater than 15 percent slope.

Streamside Management Zone Overstory Retention and Minimum Distances					
Stream type	Over-story Width		Overstory Retained	Minimum Distance to Roads, Trails, and Landings	
	Slope			Slope	
	<15%	>16%		<	>16%
Regular Perennial	25'	50'	50%	50'	100'
Intermittent	0'		0%	50'	100'
CWAH	100'		75%	100'	

3.5 Except at designated crossings, roads, trails and landings shall be located, where feasible, outside SMZ *minimum surface distances*. Where it is not feasible to maintain minimum required distances, extra measures are required during and after use to reduce and restrict down slope runoff to streams. These include the appropriate use of the following practices: minimizing road and trail grade; preventing runoff from accumulating at low points along roads, trails and landings; increasing water control structure frequency; and adequate use of logging debris and or other natural or manmade *sediment barriers* to stop or reduce down slope movement of runoff to streams.

Debris and Soil in Streams and Channels

3.6 *Disturbed soil* or *logging slash* including tops shall not be left in or have the potential to be washed into perennial or intermittent streams.

3.7 Logging slash that blocks the flow of water shall not be left in *ephemeral channels*.

Equipment in Streams

3.8 Streams and ephemeral channels must not be used as roads, trails, or the loading of logs unless topography or other circumstance leaves no other alternative for access or when use of streams and channels would create less water quality degradation than constructing new or using existing roads and trails. In these circumstances the stream or channel bed should be used only for the minimum distance necessary.

BMP 4 Sinkholes, Sinking Streams and Caves

4.1 Runoff from roads, trails and landings shall not drain into *sinkholes*, *sinking streams*, or *caves*.

(Note that if runoff does enter a sinkhole, a *UIC (Underground Injection Control)* permit may be required.)

4.2 Soil and logging debris shall not be concentrated or actively accumulated in a sinkhole.

BMP 5 Fluids and Trash

5.1 Equipment fluids shall not be drained onto the ground and should be collected, transported off site and disposed of properly.

5.2 Equipment shall not be left on or adjacent to stream banks.

5.3 All *trash* shall be properly disposed of off-site.

BMP 7 Fertilization

7.1 In silvicultural operations fertilizer should be applied in compliance with label directions and avoid application within 30 feet from any sinkholes or noticeable openings.

BMP 10 Silviculture in Wetland Areas

When logging is undertaken in wetland areas, all forestry BMPs should be used. In addition the following minimum requirements are to be used.

10.1 When silvicultural activities including harvesting are implemented in *wetlands*, additional BMPs shall be used including: minimizing construction of roads, locating landings on higher ground, and minimizing vehicle traffic.

10.2 Crossing of streams and sloughs should be avoided. If not possible follow appropriate stream crossing requirements of BMP 1.