

# BMP No. 3

## Streamside Management Zones

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**Streamside Management Zones (SMZs)** are areas adjacent to intermittent (flowing only during the wet portions of the year and/or in response to rain events), perennial waters (containing water throughout the year), and other waters where only limited disturbance is desirable. Floodplains are flat areas directly adjacent to streams where periodic flooding occurs. SMZ specifications are different for each type of water and include:

- width of trees and amount of overstory trees to be left next to the stream bank;
- distance of disturbed ground to stream bank (unless crossing).

### **Use of Stream Beds for Roads and Skid Trails**

*Minimum Requirement:*

Stream beds should not be used as roads or for the skidding of logs except where site conditions (rock walls, notches, or other limiting factors) leave no other alternatives for access or where road or skid trail placement in normally recommended locations is either impossible or will cause a higher degree of water quality degradation.

### **Perennial Streams, Lakes, and Ponds**

Perennial waters contain water throughout the year. Recommendations are given for four types of perennial waters including:

1. Regular streams and other waters including lakes and ponds (Warm Water Aquatic Habitats).

2. Coldwater Aquatic Habitats (identified as those water bodies having the potential to carry trout).
3. Streams, sloughs, and ponds in wetlands.
4. Specially designated waters.

## 1. Regular Streams and Other Waters (Warm Water Aquatic Habitats)

### *Minimum Requirements:*

- In areas adjacent to perennial streams, lakes, and ponds, maintain forest buffers for a **surface** distance of 25 feet on ground with less than 15 percent slope and for a minimum **surface** distance of 55 feet on ground with slope of 15 percent or greater where possible.
- At least 50 percent of the original tree **overstory** should be retained to shade the water.

**Table 3-1—Specifications for Regular Streams and Other Waters**

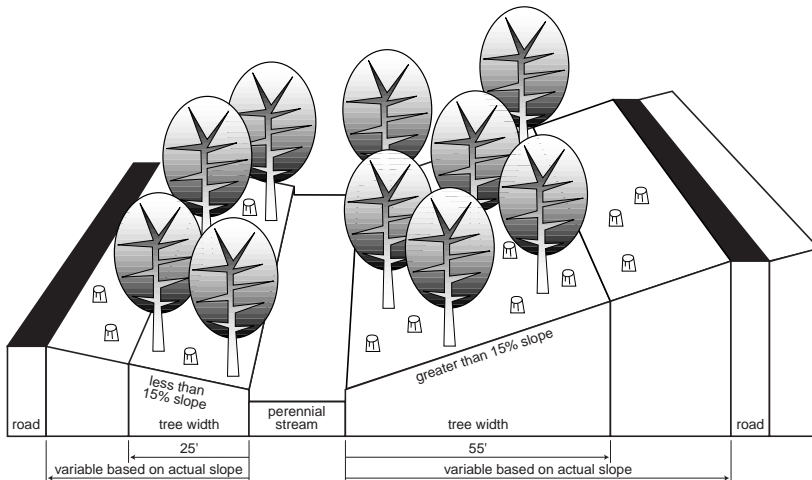
Slope of Ground Next to Bank	Width of Trees (Surface Distance)	Overstory Trees Retained	Understory Trees and Shrubs	Distance of Disturbed Ground to Bank
less than 15 percent	25 feet	50 percent	minimal disturbance	see Table 3-2
greater than 15 percent	55 feet			

**Table 3-2—Minimum Distances from Perennial Water Bodies to Roads, Trails, or Landings<sup>1</sup>**

Slope of Land (%) Away from Stream Bank	Width of Zone (feet) Away from Stream Bank
0	25
5	35
10	45
15	55
20	65
25	75
30	85
35	95
40	105
50	125
60	145
70	165

<sup>1</sup> Where minimum distances are not possible, roads, trails, and landings can be located at less than the recommended distances, but they should be constructed to protect water quality.

**Figure 3-1—Streamside Management Zone Specifications for Perennial Warm Water Aquatic Habitats**



**2. Coldwater Aquatic Habitats (CAHs)** See Appendix B for locations of Coldwater Aquatic Habitats.

*Minimum Requirements:*

- These streams should have a minimum of 75 percent of the original tree overstory retained within the 60-foot-wide strip on either side of the stream to provide shade. CAHs should have only individual trees or trees in small groups removed.
- Understory vegetation immediately adjacent to CAH streams should be left undisturbed.

**Table 3-3—Specifications for Coldwater Aquatic Habitats**

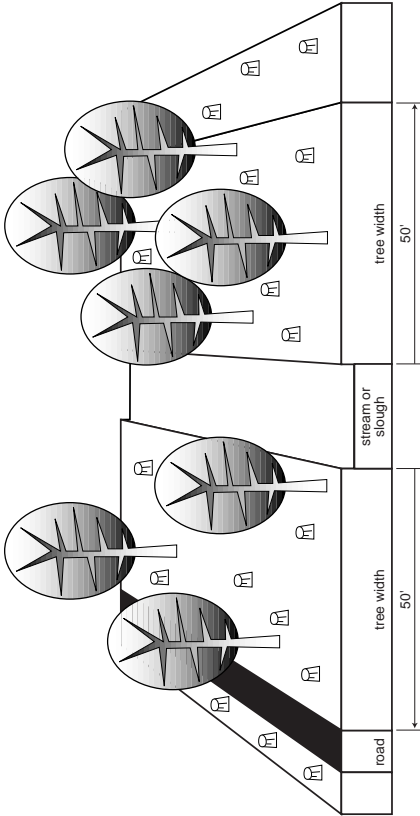
<b>Width of Trees (Surface Distance)</b>	<b>Overstory Trees Retained</b>	<b>Understory Trees and Shrubs</b>	<b>Distance of Disturbed Ground to Bank</b>
60 feet regardless of slope	75 percent	no disturbance	see Table 3-2

**3. Perennial Streams, Ponds, and Sloughs in Wetlands.** Also see BMP No. 10 for further information on wetlands.

*Minimum Requirement:*

Leave a minimum of 50 percent of the overstory trees to shade perennial streams, ponds, and sloughs.

**Figure 3-2. Streamside Management Zone Criteria for Streams and Sloughs in Wetlands**



**Table 3-4—Specifications for Perennial Streams, Ponds, and Sloughs in Wetlands**

Width of Trees (Surface Distance)	Overstory Trees Retained	Understory Trees and Shrubs	Distance of Disturbed Ground to Bank
50 feet regardless of slope	50 percent	minimal disturbance	50 feet (unless crossing)

**4. Specially Designated Perennial Waters.** Certain streams and rivers are designated for special protection, including:

- **Wild Rivers:** See Appendix C for Wild River Locations. Contact the Kentucky Division of Water’s Wild Rivers Program (502-564-3410) before logging along a corridor of a Wild River.
- **High-quality Waters:** See Appendix D for locations of these waters. Special care and strict adherence to BMPs should be used in and around these waters.
- **Outstanding National Resource Waters:** See Appendix E for locations of these waters. Special care and strict adherence to BMPs should be used in and around these waters.

**Intermittent Streams**

Intermittent streams flow only during the wet portions of the year and in response to rain events.

*Minimum Requirement:*

In areas adjacent to intermittent streams, avoid equipment operation in a zone of at least 25 feet on each side of an intermittent stream except for designated crossings, where possible. Tops or other logging debris that may block the intermittent stream channel should be removed or placed in such a way that they will not cause a blockage.

**Table 3-5—Specifications for Intermittent Streams**

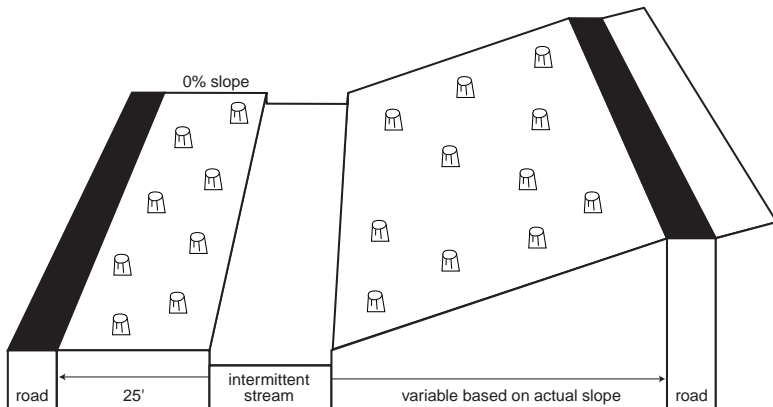
Width of Trees	Overstory Trees Retained	Understory Trees and Shrubs	Distance of Disturbed Ground to Bank
0 feet	0 percent	minimal disturbance	see Table 3-6 (unless crossing)

**Table 3-6—Minimum Distances from Intermittent Streams to Roads, Trails, or Landings<sup>1</sup>**

Slope of Land (%) Away from Stream Bank	Width of Zone (feet) Away from Stream Bank
0	25
5	30
10	35
15	40
20	45
25	50
30	55
40 or higher	65

<sup>1</sup> Where minimum distances are not possible, roads, trails, and landings can be located at less than the recommended distances, but they should be constructed to protect water quality.

**Figure 3-3—Streamside Management Zone Specifications for Intermittent Streams**



**Important:** While no standing tree width is required, tree tops cannot be left in intermittent streams and should not be placed so as to wash into a stream. Use a standing tree zone to lodge tops, if necessary. Floodplain Regulations may apply (See Appendix A).

### **Floodplains**

See floodplain regulations in Appendix A for requirements necessary for building crossings. Tree tops and debris should not be left so they could obstruct water flow in perennial or intermittent streams.

- Tree tops and logging debris generated along streams should be winched and lodged in or behind the standing trees of an SMZ.

### **Regulatory Requirements for BMP No. 3**

*(See Appendix A for Explanations)*

- Debris in floodplains: **(KRS 151.250)**
- All silvicultural operations: **(410 KAR 5:026, 5:029, 5:030, and 5:031)**
- Activities near high-quality waters and outstanding national resource waters: **(401 KAR 5:029, 5:030, and 5:031)**
- Activities near wild rivers: **(KRS 146.200 et seq. and 401 KAR 4:100-140)**