

FACT SHEET

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Timber & Timber Harvesting in West Virginia

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Riparian (Streamside) Areas

The word *riparian* comes from the Latin word for bank as in stream bank and refers to the strip or zone alongside a stream or lake that is in some way at some time influenced by the water. There's little argument that riparian zones are the most valuable and at the same time most sensitive portions of the forest for most forest resources, including water, timber, wildlife and recreation.

In high rainfall areas, such as West Virginia with its dense network of streams, riparian areas can occupy 30 percent or more of the landscape. These areas are usually the most productive timber producing areas of the landscape. In many areas, they are the only places certain high site species such as black cherry, basswood, sugar maple, black walnut and sugar maple can be grown satisfactorily.

Riparian zones are very environmentally sensitive, but by taking extra precautions, such as limiting roads and the use of machinery on them, they can be managed both productively and sustainably. For example, harvested trees can be winched from riparian zones to minimize soil disturbance; hiking and biking trails can be kept well back from the streamside; and a full understory, including basic shrubs, can be developed for birds and other wildlife. Forest managers can even create small openings, e.g. 0.5 acres in size, to regenerate intolerant species if the openings are properly spaced so that large segments of stream channels are not exposed to full sunlight at the same time.

Research foresters at the U. S. Forest Service's Fernow Experimental Forest near Parsons, WV are world famous for their prescient work on the protection of water resources during timber harvesting operations in central Appalachian forests. The forest hydrology research program was started in 1951 when instruments to measure rainfall and streamflow were placed in five watersheds. One of the first publications described research replicated in more than one state showing the widths of riparian areas needed as a screen to prevent sediment from logging roads getting into streams. The authors concluded that the width varies according to the steepness of adjacent slopes. Since then, research scientists such as Dick Trimble, Jim Patric, Jim Kochenderfer, Sidney Weitzman, and Ken Reinhart, among others, have greatly extended the research, publishing dozens of research papers on the proper construction of logging roads and skidding trails and water and sediment handling techniques which have served as the

basis for practicing good environmental forestry throughout the Appalachians. Except for the definition, this note is based entirely on their work. [See Fact Sheet 18 on Best Management Practices.]

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