

APPENDIX A: DEFINITION OF RIPARIAN CORRIDOR

RIPARIAN CORRIDORS VERSUS RIPARIAN AREAS

Riparian Areas are functionally defined as areas with three-dimensional ecotones of interaction that include both terrestrial and aquatic ecosystems. They extend down into the groundwater, up above the canopy, outward across the floodplain, up the near-slopes that drain into the water, laterally into the terrestrial ecosystem, and along the watercourse at a variable width (Ilhardt et al. 2000). A **Riparian Corridor**, on the other hand, is a management prescription area designed to include much of the Riparian Area. Within the riparian corridor management prescription area, management practices are specified to maintain riparian functions and values. As a management prescription area, this includes corridors along all defined perennial and intermittent stream channels that show signs of scour, and around natural ponds, lakeshores, wetlands, springs, and seeps.

DETERMINATION OF RIPARIAN CORRIDORS

Due to their spatial extent, riparian corridors are not identified on the Forest Plan map of prescription allocations. Estimated acreages of the Riparian Prescription allocations are based on the widths described in Tables in A-1 and A-2. For project planning and implementation, the following process will be used to determine the extent of site-specific riparian corridors.

Riparian corridor widths are designed to encompass the riparian area defined on the basis of soils, vegetation and hydrology and the ecological functions and values associated with the riparian area. The widths in Tables A-1 and A-2 shall be used to define the riparian corridor if the corridor is not site-specifically determined as described below.

If a site-specific field investigation determines the need to vary the widths in Table A-1 and A-2, that width shall become the project level riparian corridor. This corridor shall be determined by an interdisciplinary analysis using site-specific information to ensure that riparian values and functions are maintained.

The slope-dependent riparian corridor widths are measured in on-the-ground surface feet perpendicular from the edge of the channel or bank (stream, waterbody, etc.) and extend out from each side of a stream. For ponds, lakes, sloughs, and wetlands (including seeps or springs associated with wetlands) the measurement would start at the ordinary high water mark and go around the perimeter. For braided streams, the outermost braid will be used as the water's edge. An interrupted stream (a watercourse that goes underground and then reappears) will be treated as if the stream were above ground. (An acceptable level of error for on-the-ground measurements of these widths is $\pm 10\%$.) The riparian corridor includes human-created reservoirs, wildlife ponds, wetlands, and waterholes connected to or associated with natural water features. In addition, those areas not associated with natural water features, but support riparian flora or fauna, will have a riparian corridor designation. The riparian corridor management direction does not apply to constructed ponds developed for recreation uses; or to human-made ditches, gullies, or other features that are maintained or in the process of restoration. For these areas, site-specific analysis will determine appropriate protective measures. (See also the Forestwide Standards in Chapter 4.)

Tables A-1 and A-2 do not apply to constructed ponds developed for recreation uses; or to human-made ditches, gullies, or other features that are maintained or in the process of restoration. For these areas, site-specific analysis will determine the appropriate protective measures.

Table A-1. Riparian Corridor Minimum Widths for Perennial Streams, Lakes, Ponds, Wetlands, Springs or Seeps

Slope Class	0-10% Core Area	11-45% Core + Extended Area	45%+ Core + Extended Area
Minimum width in feet (as described above)	100	125	150*

Table A-2. Riparian Corridor Minimum Widths for Intermittent Streams

Slope Class	0-10% Core Area	11-45% Core + Extended Area	45%+ Core + Extended Area
Minimum width in feet (as described above)	50	75*	100*

* The Extended Area is the outer 25 feet (on 11-45 % slopes) and 50 feet (on 45% and greater slopes).

OVERVIEW OF RIPARIAN CORRIDORS

The figure below is a simplified representation of the Riparian Corridor that demonstrates its extension on both sides of a watercourse, down into the water table, and laterally around wetlands and other surface water sources. The Riparian Corridor may fall within or beyond the true Riparian Area.

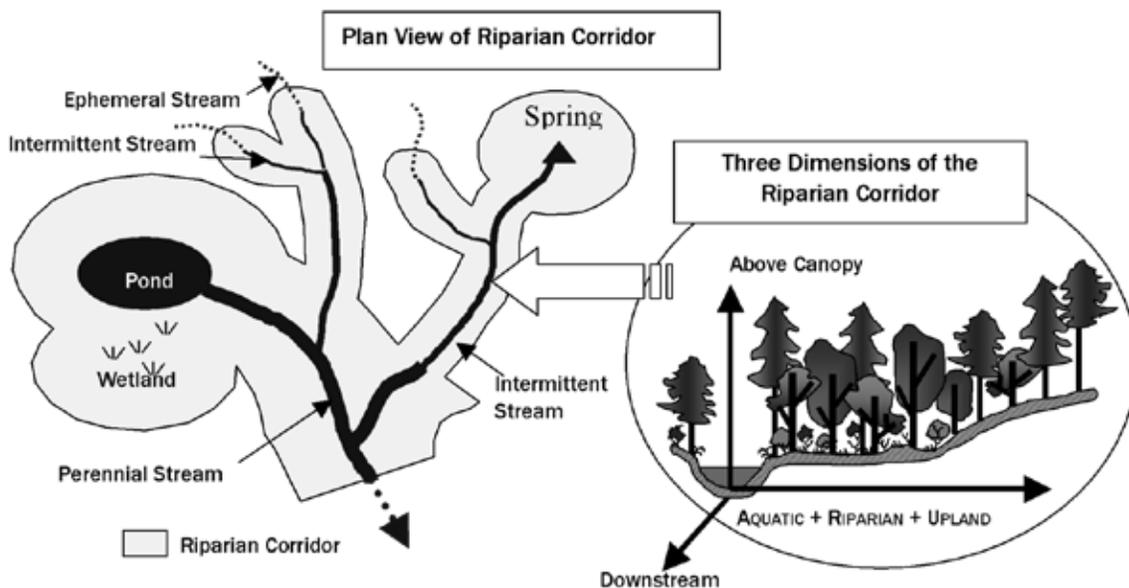


Figure A-1. Simplified Representation of a Riparian Corridor

OPERATIONAL DEFINITION FOR A RIPARIAN AREA

Riparian Areas are areas associated with the aquatic ecosystem and that portion of the terrestrial ecosystem that is substantially affected by the presence of surface and groundwater. Riparian areas consist of perennial streams, natural ponds, lakes, wetlands, and adjacent lands with soils, vegetation and landform indicative of high soil moisture or frequent flooding. Riparian areas have variable widths that are determined by ecologically significant boundaries rather than arbitrary distances. The extent of riparian areas is determined on-the-ground using features of soil, landform, and vegetation. No feature is used alone to delineate these ecosystems. Characteristics indicative of these areas are:

- Soils – dark colored Entisols, Inceptisols, and Mollisols;
- Landform – the 100-year floodplain;
- Vegetation – the presence of wetland plants classified as obligates or facultative wetland species as defined by the U.S. Fish and Wildlife Service in the National List of Plants that Occur in Wetlands: Northeast (Region 1). (Reed, P.B., Jr., 1988).

RELATIONSHIP WITH OTHER MANAGEMENT PRESCRIPTIONS

The Riparian Corridors overlap with other management prescription allocations. In order to establish precedence, the following rules apply:

Where the Riparian Corridor management prescription area overlaps with lands that have been allocated to the following Management Prescriptions, then whichever management direction is the most restrictive will apply:

- 1A or 1B – Wilderness and Recommended Wilderness Study,
- 2C2 or 2C3 – Eligible Scenic and Recreational Rivers,
- 8E7 – Shenandoah Mountain Crest
- 8E4a – Indiana Bat Primary Cave Protection Area,
- 12D - Backcountry Recreation Areas

For lands allocated to any of the other management prescriptions, where the riparian corridor overlaps with these allocations, the direction in the Riparian Corridor Management Prescription will take precedence.

RELATIONSHIP WITH BEST MANAGEMENT PRACTICES

This Forest Plan meets or exceeds State Best Management Practices. Current State BMP handbooks or manuals are incorporated as direction in the Forest Plan and are implemented for those resource management activities that are covered by the handbooks/manuals. Standards for activities not included in BMP handbooks/manuals are included in Chapter 4 of this Forest Plan.

The Streamside Management Zones (SMZ) recommended in State BMPs are designated areas directly adjacent to streams and water bodies where land management activities are controlled or regulated to primarily protect water quality and aquatic organisms from upslope land uses. Provisions within the SMZ typically contain sediment filter strips, a base shade level, restriction on ground disturbance and protection of stream banks and streambeds. As described, Riparian Corridors are management prescription areas that maintain ecological processes and functions. SMZs may be the same width or smaller than the riparian corridor, however, in some cases they may extend beyond the corridor.

RELATIONSHIP WITH CHANNELED EPHEMERAL STREAMS

Ephemeral streams do not have true riparian areas but are hydrologically connected to perennial and intermittent streams. Channeled Ephemeral Stream Zones include and are directly adjacent to all scoured ephemeral channels. Standards for the Channeled Ephemeral Zone are found in Chapter 4 of this Forest Plan. The primary purpose of this zone is to maintain the ability of the land to filter sediment from upslope disturbances while achieving the goals of the adjacent management prescription area. In addition, the emphasis along ephemeral streams is to maintain channel stability and sediment control by keeping vehicles away from stream banks and maintaining, restoring, or enhancing large woody debris. The management direction in this zone reflects the adjacent management prescription and may be modified as a result of watershed analysis.

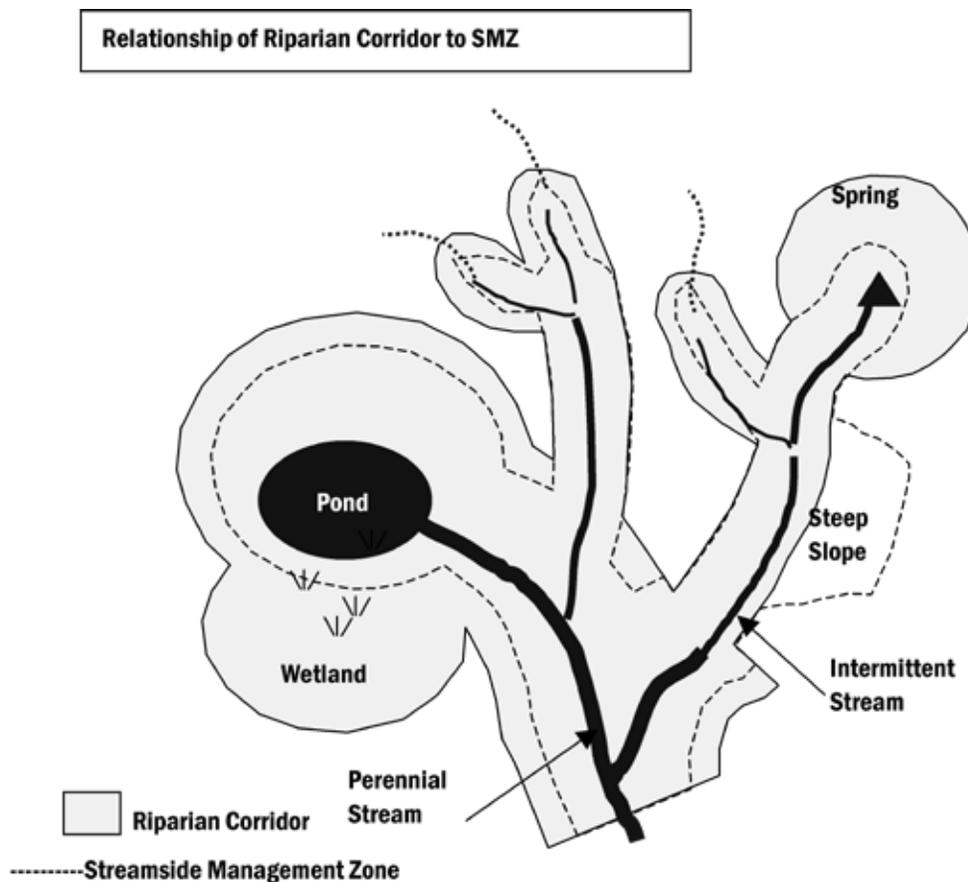


Figure A-2. Relationship of Riparian Corridor to Streamside Management Zone