SPECIFICATIONS
RIPARIAN FOREST BUFFER
CODE 391

Zone 1 Establishment Zone 1 extends a minimum distance of 15 feet perpendicular to the water line or bank top of an active channel or water body and provides bank protection and moderates stream temperature (See Practices Standards 612 and 657).

Plant tree and shrub species suited to the site that will provide stream bank erosion protection and shade to moderate stream temperature (Figure 4). On upland soils, plant a mixed stand of southern pine (loblolly, slash) and hardwood species. Plantings will consist of species suited to the seasonal soil moisture status of the site. Species shall be selected based on their compatibility in growth rates and shade tolerance and suitability to seasonal soil moisture trends. An adequate upstream or adjacent seed source must be present when using natural regeneration to establish a buffer.

Site preparation prescriptions will be adequate to ensure tree survival, growth and development (See Practice Standard 490).

Future management of established buffers should maintain a diverse species composition. Occasional tree removal such as high value trees is permitted in Zone 1 provided the tree removal or harvesting disturbance does not compromise function of the buffer. Felling and skidding of trees shall be directed away from the watercourse or water body. Skidding within the zone should be minimal and done in a manner to prevent the creation of ephemeral channels perpendicular to the stream.

The planting method must ensure proper placement of trees and shrubs and that roots are planted at proper depth. Hand or machine methods may be used but the intended purpose should not be impaired. Machine planting will be done on the contour.

All zones of the buffer may be fenced to exclude livestock (See Practice Standards 472 and 382) to achieve and maintain the intended purpose. Watercourse crossings and livestock watering shall be located and sized to minimize the impact on vegetation and function. Harmful pests present on the site will be controlled or eliminated as necessary to achieve and maintain the intended purpose.

Zone 2 Establishment Zone 2 will be designed to provide multiple value functions such as wildlife habitat. It begins at the up-gradient edge of Zone 1 extending a minimum distance of 20 feet perpendicular to the water line or bank top or parallel to Zone 1..

Plant communities will be established to address targeted wildlife needs and existing resources of the watershed. Management for wildlife habitat, aesthetics, and timber are compatible secondary objectives as long as this management does not jeopardize the primary function of the buffer. (See Practices Standards 643, 644 and 645.). If wildlife habitat creation is a stated objective of the landowner, riparian buffers may be established along natural levees (high banks) of permanent or intermittent streams, lakes, ponds, wetlands or other watercourses to serve as wildlife corridors. Targeted wildlife species (whitetail deer and bear) will determine the width of the riparian buffer. (Figure I).

Zone 3 Establishment Zone 3 provides sediment filtering, nutrient uptake, and a transition zone to convert concentrate water flow to uniform sheet flow when crop land, pasture land and

other erodible areas are adjacent to the designed riparian forest buffer (Figures 2 and 3) .

Vegetation will be comprised of dense perennial grasses and forbs for stabilization, sediment control, and nutrient uptake and water flow dispersal (See Practice Standard 393). The vegetation in Zone 3 should be maintained in a vigorous condition. Mow and remove clippings as necessary to recycle sequestered nutrients, promote vigorous sod and control weeds

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service

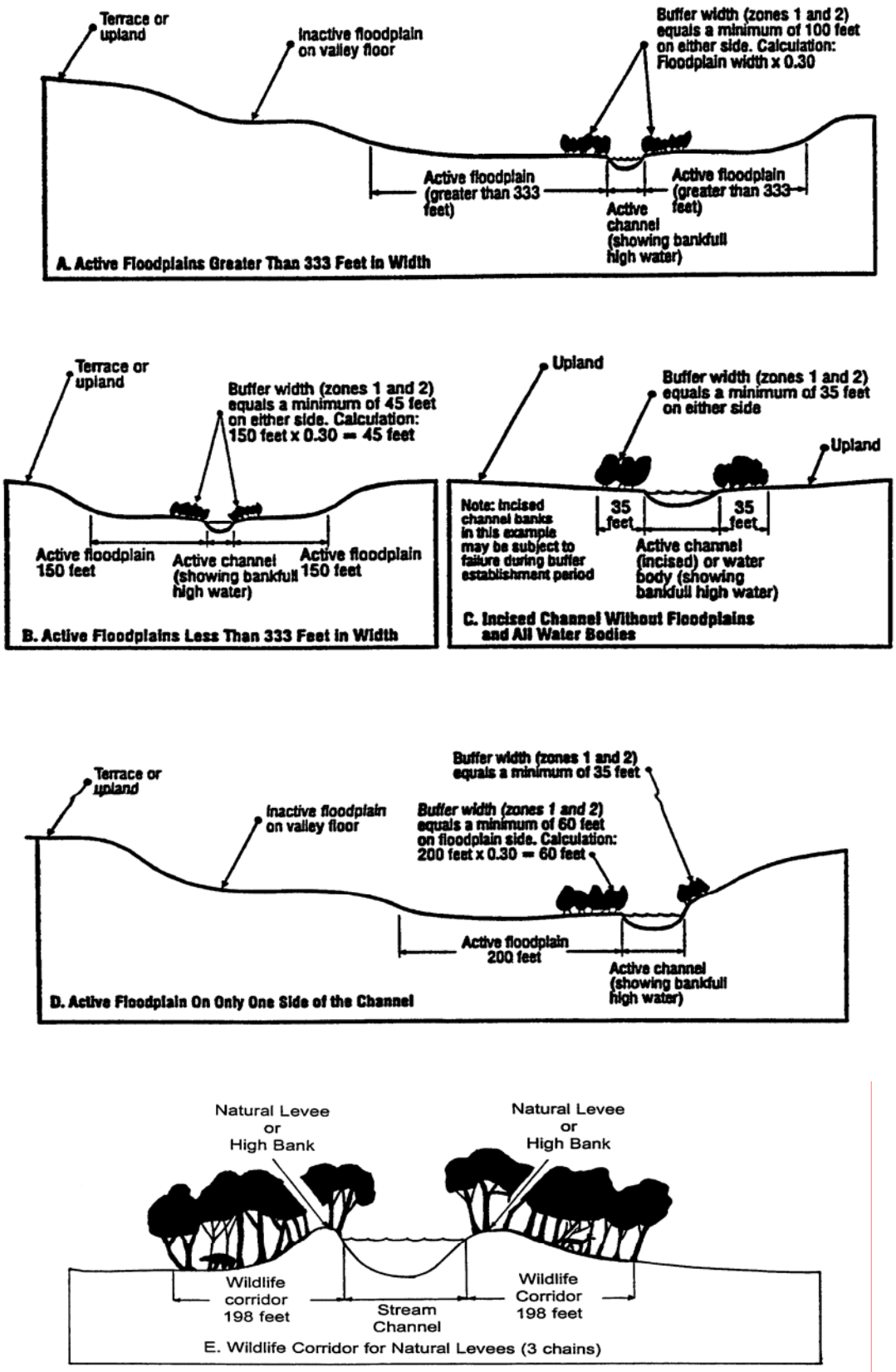

Figure 1. Examples of riparian forest buffer widths for watercourses and water bodies.

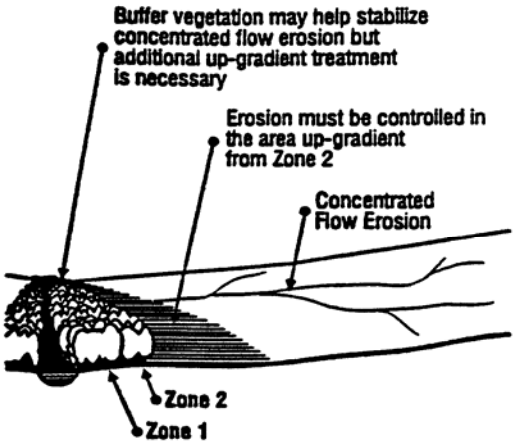

Figure 2. Control of concentrated flow erosion

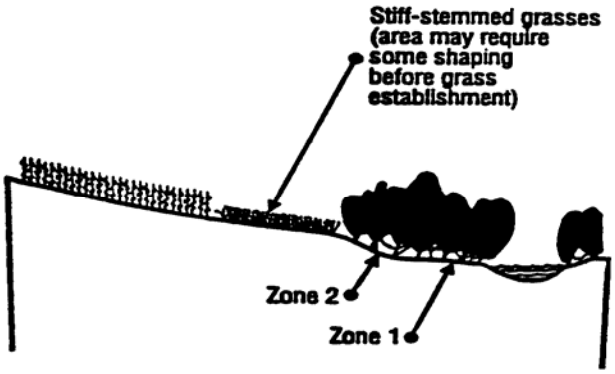

Figure 3. Sediment-trapping above zone 2.

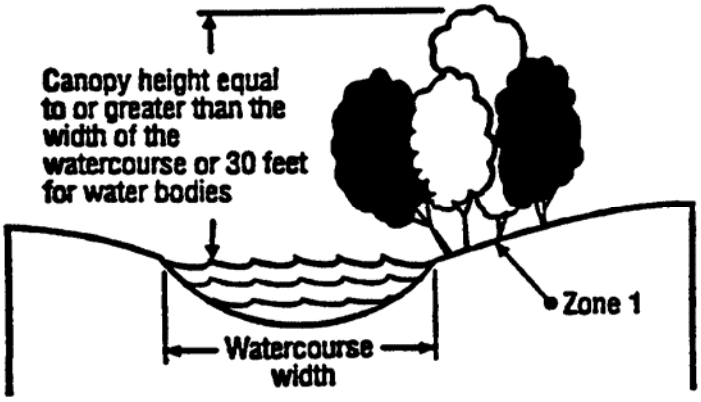

Figure 4. Canopy height for water temperature control.

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