Article 41

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Invisibility of Stream/Wetland Buffers: Can Their Integrity be Maintained?

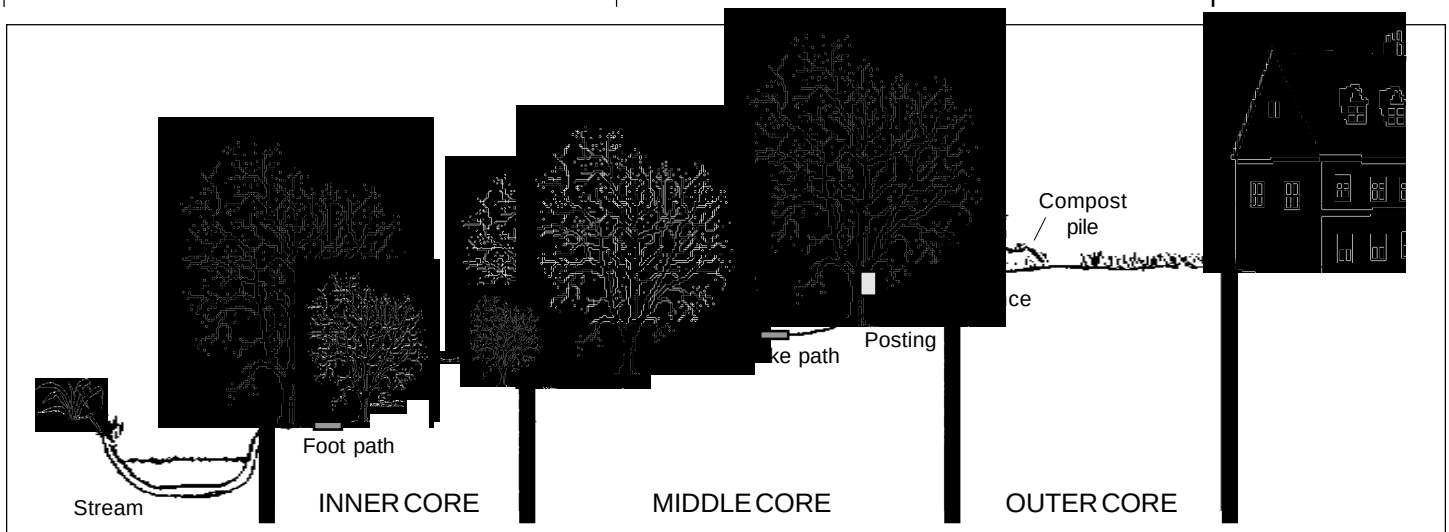
Stream and wetland buffers are an increasingly popular watershed protection technique due to their apparent simplicity, low cost, ease of implementation, and presumed capability to protect resource areas (Figure 1). As a result, local governments across the country have incorporated stream and wetland buffer requirements into their development review process. Two recent studies, however, suggest that buffers might have limited usefulness as a watershed protection tool as they are currently enforced.

The key problem is that buffer boundaries are often invisible to property owners, contractors, and even the local governments themselves. Without defined boundaries, urban buffers face enormous pressure from encroachment, disturbance, and other incompatible uses.

The first study involved a survey of how buffer programs were administered in 36 jurisdictions around the country (Heraty, 1993). In nearly every locale, developers were required to delineate a stream or wetland buffer on concept or final plans for purposes of development review. However, only half the jurisdictions required that buffer boundaries be clearly delimited on the plans for clearing/grading and sediment control.

This omission is significant as boundaries are needed on the plans to stake out the limits of disturbance around the buffer during construction. The absence of buffer limits on construction-stage plans increases the risk that contractors will encroach or disturb the buffer.

Local governments also contribute to the invisibility of buffers by not recording their boundaries on their own official maps. For example, Heraty found that only one-third of all survey respondents recorded buffer limits on their official property maps. Without buffer maps, local governments cannot systematically inspect



CHARACTERISTICS	INNER CORE	MIDDLE CORE	OUTER CORE
Width	25 feet, plus wetlands and critical habitats	25 to 50 feet, depending on stream order, slope, and 100 year floodplain	25 foot minimum setback to structures
Vegetative Target	Undisturbed forest. Reforest if grass	Managed forest, some clearing allowable	Forest or turf
Allowable Uses	***Very Restricted*** e.g., flood control, utility right of ways, footpaths, etc.	***Restricted*** e.g., some recreational uses, some stormwater BMPs, bike paths, tree removal by permit	***Unrestricted*** e.g., residential uses including lawn, garden, compost, yard wastes, most stormwater BMPs

Figure 1: Schematic of a Three-Zone Buffer