Development of a multiple use vegetated buffer policy for the coastal zone

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Vegetated buffers are fast becoming a management tool used by resource managers for abatement of nonpoint source pollution. Little consensus with regard to what constitutes an effective buffer for the removal of pollutants exists, and essentially no consensus with regard to potential multiple use and multiple benefits. A description of a "best vegetated buffer" does not exist at present.

With regard to the implications for the use of vegetated buffers as a natural resources management tool, especially for use in the coastal zone, a literature review of the science, uses, values, and implications was undertaken. From that review, the following table was constructed in order to identify specific buffer widths that relate to generalized values for pollutant removal and wildlife habitat. The values reported here can be used by resource managers for determining buffer widths for a specific purpose in a generalized manner. In some instances it may be more effective to use models that incorporate site-specific criteria such as soil type, slope, and other site characteristics.

In general, however, the following criteria provide some generalizations that can be useful in determining approximate buffer widths for multiple use management along the coastal zone and other environments. The buffer widths given are taken from the published literature, and are therefore real and defensible. The benefits gained from the implementation of a given buffer width are defined, and are shown to have multiple uses when applied for management purposes.,

A compilation of buffer widths, pollutant removal effectiveness, and wildlife habitat values as generalized from a literature review.

Width (m)	Pollutant Removal Effectiveness	Wildlife Value
5	Approximately 50% for sediment and pollutants	Poor habitat value
10	Approximately 75% for sediment and pollutants	Minimal habitat value
15	75% or greater for sediment and pollutants	Minimal habitat value
20	Approximately 90% for sediment and pollutants	Fair habitat value; May have use as a travel corridor
30	95% or greater for sediment and pollutants	Fair habitat value; May have use as a travel corridor
50	95% or greater for sediment and pollutants	Good general habitat value
75	Maximal for sediment and pollutants	Good general habitat value
100	Maximal for sediment and pollutants	Good general habitat value; May protect significant habitat
200	Maximal for sediment and pollutants	Excellent general value; Likely support of a diverse community