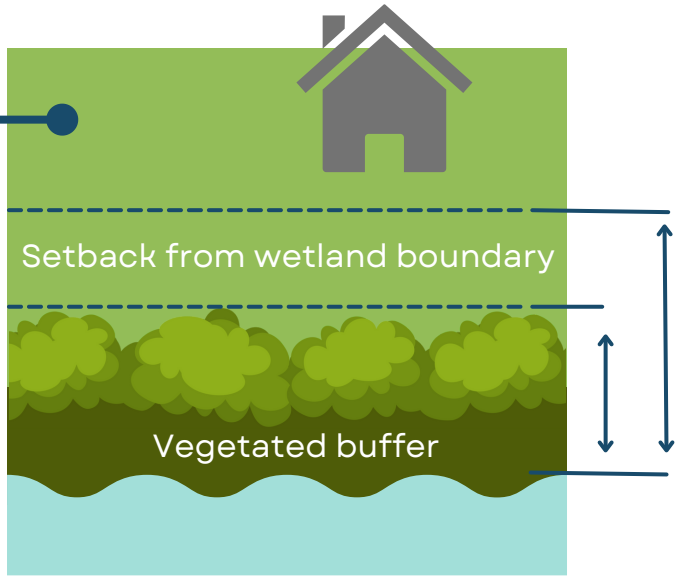
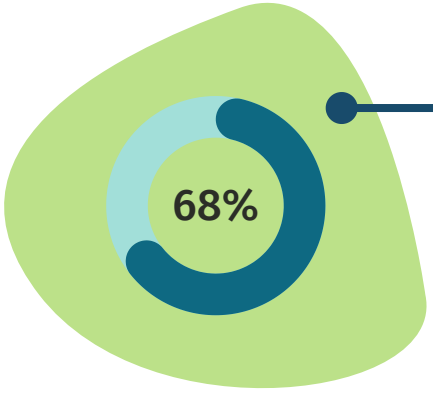
Key Facts for
Wetland Buffers

This handout summarizes science-based information on wetland buffer width, design, and benefits for coastal South Carolina communities

Buffers vs Setbacks

Both are regulated areas where certain activities may be limited. A **setback** defines a distance from a boundary where certain building activities are prohibited. **Buffers** are non-disturbance areas where natural vegetation must be maintained. Leaving existing native plants is the best choice for ease of maintenance and benefits provided.





Buffer Ordinances in SC

24 out of 35 coastal communities in SC currently have some sort of setback or buffer ordinance. The details of design, enforcement, and prohibited activities vary widely.

Buffer Width

Buffer ordinances currently range from **10 to 50 feet** in coastal SC. The reverse page summarizes the best available science for designing buffers to achieve corresponding benefits. There is a wide range of widths. Minimum numbers represent the lowest widths that may provide a function (e.g. sediment filtration). However, **minimum widths may not be adequate for achieving desired benefits. Buffer functions depend on many factors, including buffer lifespan, slope, adjacent land use, etc.**

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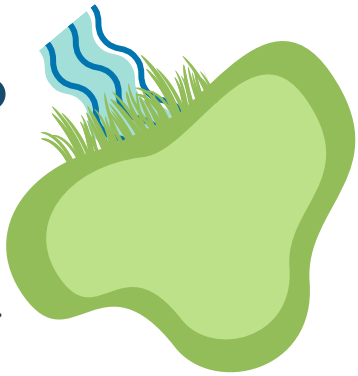
Widths are based scientific studies summarized in the
Planner's Guide to Wetland Buffers for Local Governments (2008)

Prevents erosion (15 to 100+ feet)

Vegetated buffers remove sediment and prevent erosion by slowing and filtering stormwater runoff. Wetlands provide storage space for water, reducing flood risk and protecting water quality. Buffers protect wetlands from negative impacts of sediments.



Benefits increase with width

"A significant percent of sediment in surface flows may be removed in a 15-30 foot buffer, but sediments may be more consistently removed by buffers of 30-100 feet"

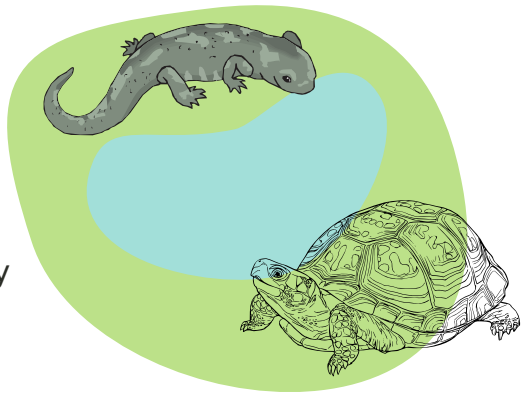
Reduces pollution (15 to 160+ feet)

Wetland buffers filter and absorb nutrients, such as nitrogen and phosphorus. Excessive nutrients in waterways may result in regulatory issues and expensive management interventions, but buffers help to maintain wetland filtration services.

Wider buffers have been shown to increase nitrogen and phosphorus removal, especially over a long-term lifespan for a buffer

Protects Wildlife (50 to 5000+ feet)

Buffers benefit wildlife that rely on wetlands by maintaining wetland health, reducing disturbance in edge areas, and allowing movement to other habitats. Widths vary depending on the species of concern and adjacent land use. Buffers are most effective when they achieve connectivity through wildlife corridors and are especially important near conservation areas



Access additional resources and citations by scanning the QR code

Questions? Contact Maeve Snyder at msnyder@baruch.sc.edu

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