5 Information Bulletin

Chesapeake Bay Local Assistance Department

March, 1991 Number 5

Buffer Areas

When is the buffer area, for the purposes of a proposed development, established? Does shoreline accretion and erosion affect the location of the buffer? Is it adjusted over time to reflect physiographic changes in the shoreline? If a buffer is established for agricultural or forestal uses, does the buffer automatically apply to a subsequent use or development?

Regulatory requirements:

- *Section 3.2.B.4 includes a buffer area of at least 100 feet in width as a component of Resource Protection Areas.*

- *Section 2.2.A requires local governments to adopt a map delineating Chesapeake Bay Preservation Areas.*

- *Section 4.1.B provides for determining site-specific boundaries of Preservation Areas through the plan of development review process.*

- *Part IV. (Performance Criteria) applies to "any use, development, or redevelopment of land in Chesapeake Bay Preservation Areas." [§ 4.2]*

- *Section 4.3.B applies a buffer area, or a combination of a buffer area and Best Management Practices, to uses and developments adjacent to other RPA features.*

Buffer area delineations should be treated much the same as floodplain delineations or other zoning setbacks. Floodplains are typically revised when natural or man-made changes have occurred (erosion or accretion) or when more detailed studies are conducted. Zoning setbacks are determined on the basis of the local ordinance in effect at the time of development. Therefore, when a property owner wishes to change the use of a property, expand an existing use, or redevelop, the proposal must go through the plan of development process and the buffer area will be revised. Although redevelopment is an allowed use in the RPA, redevelopment is not exempt from the requirement of a plan of development process.

Based on these factors, the Department provides the following guidance:

a. Chesapeake Bay Preservation Area designation maps are planning tools for the purpose of indicating general locations of Chesapeake Bay Preservation Areas.

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How to Measure the Buffer Area

1. **Determine landward edge of RPA feature:**

a. **Wetland** - *Perform wetland determination and delineation to establish landward extent of RPA wetland.* Check with the local government office coordinating the plan of development review process. In many cases, a local government representative might be able to help with the field delineation. In other cases, an environmental consultant must be contracted in order to adequately perform the delineation.

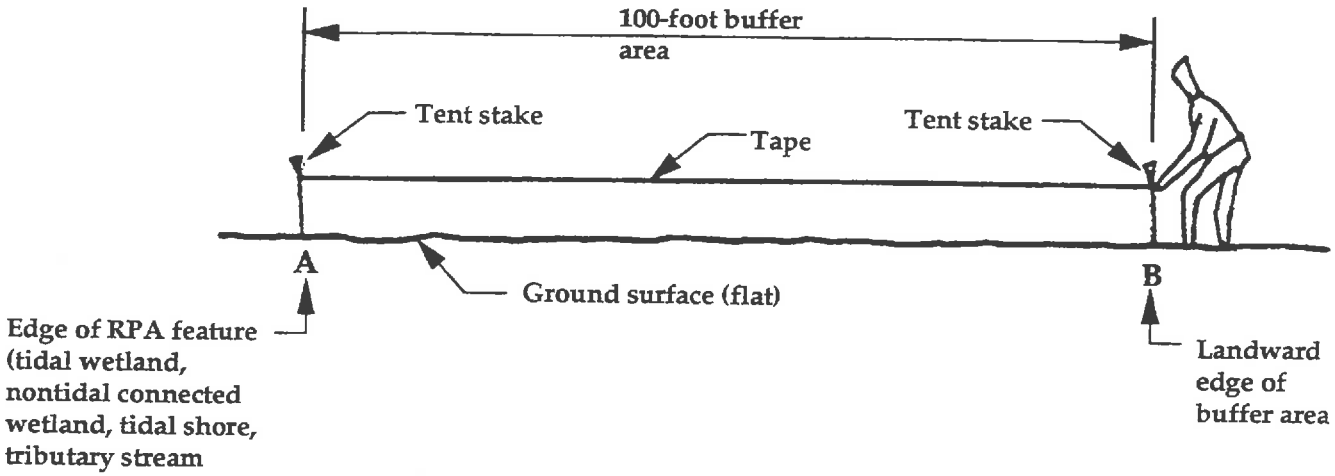
b. **Tidal shore** - *Determine the landward extent of the mean high water level.* In many cases, this determination can be made based upon observable evidence of the normal extent of mean high tide, such as debris lines or abrupt changes in vegetation.

c. **Tributary stream** - *Determine if the stream is an RPA tributary stream from the local government office coordinating the plan of development review process.* Determine from field observations the edge of ordinary high water or edge of defined streambed.

2. **Measure 100 feet horizontally from the edge of the RPA feature:**

NOTE: To insure that the landward edge of the buffer area runs parallel to the edge of the RPA feature, this procedure will have to be performed in at least two locations across the site. If the edge of the RPA feature runs straight across the property with no curves or deviations, then a measurement taken at each property line will be sufficient. However, if the edge of the RPA feature is curved or deviates in and/or out, then measurements will have to be taken at each point of devation along its entire length to establish an accurate line for the landward edge of the buffer area.

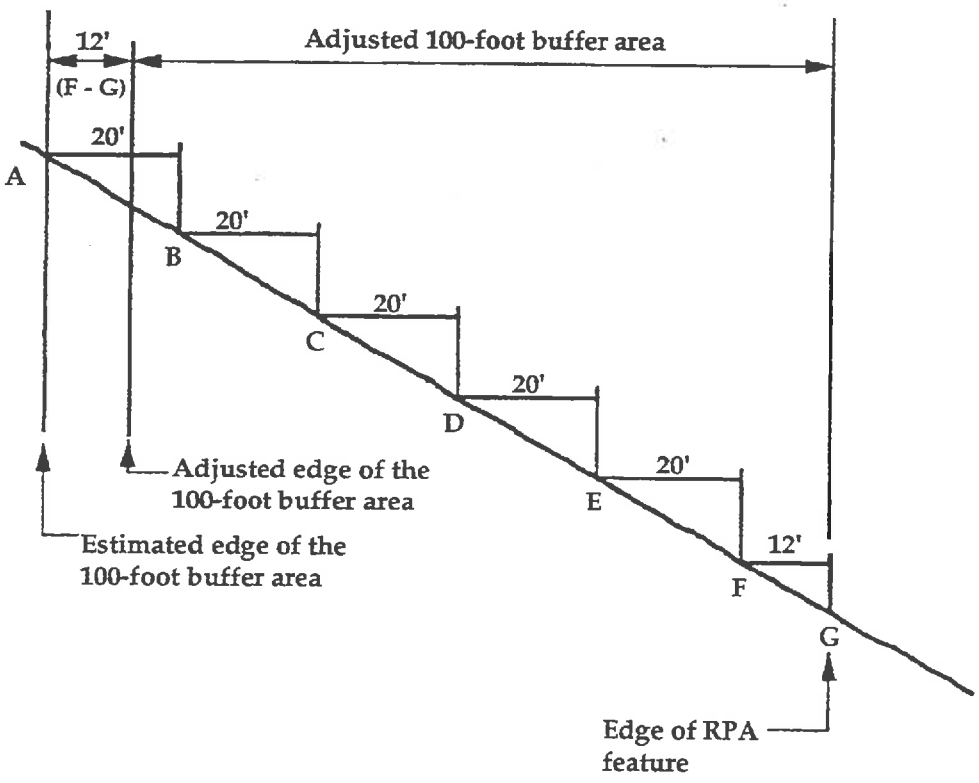
a. **Flat slopes** - Use a 25', 50', or 100' metal or fiberglass tape to measure **a horizontal** distance of 100 feet. In cases where a 25' or 50' tape is used, several measurements must be made in order to measure the full 100-foot buffer area. One person can do this task by staking down one end of the tape at the edge of the RPA feature **(A)**. Next, mark the extent of the 25', 50', or 100' increment with another tent peg or similar device .



SIDE VIEW

(2) When one person is available - First, from the edge of the RPA feature, estimate a **horizontal** distance of 100 feet up the slope. It is easier to determine the landward edge of the buffer area if a horizontal distance greater than 100 feet is estimated at first, since the final adjustment to the buffer width can be made by measuring downhill. Begin measuring downhill from the estimated landward edge of the buffer area **(A)** by staking down the uphill end of the tape and proceeding downhill to a point where you can comfortably hold the tape in a **horizontal** or level position. Mark this point on the ground in the same manner as described on page 2 for when two people are available. **Horizontally** measure the full 100-foot buffer area **(A - F)** and mark the point **(F)** with a tent peg or similar device. Next, determine the **horizontal** distance from the measured edge of the buffer area **(F)** to the edge of the RPA feature **(G)**. This distance **(F-G)** will need to be adjusted at the estimated edge of the buffer area **(A)**. As shown in the graphic below, this adjustment is made by measuring downhill from point **(A)** a distance equal to the distance **(F - G)**, which is **12'** in this example. If the **horizontally** measured 100-foot buffer area goes beyond the edge of and into the RPA feature, then the **horizontal** distance beyond the RPA feature will need to be adjusted at point **(A)** by **horizontally** measuring uphill an equivalent distance.

c. **Extreme slopes or cliffs** - When extreme slopes or cliffs are encountered, a certified land surveyor may be required to achieve an accurate 100-foot buffer measurement. Check with the local government office coordinating the plan of development review process. In most cases, a local government representative should be able to provide additional information for buffer layout in such extreme situations.



SIDE VIEW