

Do good seawalls make bad neighbors?

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Part I. Meet the Caldwell's

Roy, a small business owner, and Sharon Caldwell, a high school science teacher, live in a waterfront house on Mobile Bay in Alabama. Roy and Sharon moved to Mobile Bay 30 years ago with their two children, who are now in college. When the Caldwell's moved to Point Clear in 1983, they had a dense salt marsh along their shoreline, similar to the one shown below.



*Shoreline with salt marsh and oysters. The Caldwell's property looked similar to this shoreline in 1983.
Photo credit: R. Gittman*

Over the years, their shoreline began to erode and they began to lose much of the salt marsh vegetation along their shoreline. Now, the marsh is gone and they are beginning to lose the underlying sediment and their upland lawn vegetation. In the spring of 2013, their shoreline looked like this:



*The current condition of the Caldwell's shoreline. Mr. Holling's property is shown in the background.
Photo credit: R. Gittman*

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The Caldwell's neighbor, Mike Hollings, has contacted the Caldwell's several times in the past year because he is concerned that his bulkheaded shoreline is being damaged by the erosion occurring on the Caldwell's property. Mr. Hollings also notified the neighborhood association of his concerns about the Caldwell's property and requested that their shoreline be stabilized. After the most recent Hurricane in August 2012, Mr. Hollings indicated that he intends to file a lawsuit against the Caldwell's for damage to his property if they do not take action.



View of Mr. Hollings bulkhead adjacent to the Caldwell's eroded shoreline in the spring of 2013. The Caldwell's have placed sandbags next to Mr. Holling's property to temporarily prevent further erosion. Photo credit: R. Gittman

The Caldwell's are concerned about their legal liabilities and losing more of their property, but are not convinced if or how they should take action to prevent further erosion of their property. From talking with other neighbors in their community and contractors that offer solutions for coastal erosion, the Caldwell's have narrowed down their decision to five different options. These are to install: (1) a vertical wall, (2) riprap revetment, (3) planted marsh grasses, (4) breakwater and planted marsh, or (5) do nothing.

Part II. *What type of shoreline stabilization should the Caldwell's choose for their shoreline?*

Step 1: Rank the Caldwell family's options considering the information on the fact sheet.

1. First, get acquainted with the five shoreline stabilization options shown in the pictures below.
2. Next, read the fact sheet and discuss with your team how to best to use the information to make a decision.
3. Finally, record your rankings as a group and write a brief summary justifying your team's decision for each factor.

Step 2: Develop comprehensive ranking based on all factors combined.

1. Now you must decide on a final ranking of the shoreline stabilization options based on all of the factors that you have reviewed and discussed. You can do this any way you desire, but make sure to write down a short summary of your method for ranking and reasons for your decision.