

VIMS' Role in Tidal Wetlands Permitting: A Case Study in Advisory Service

Ann Burruss knew she had a problem. The water in her house from Hurricane Isabel was long gone, but she was still losing her beloved marsh.

Burruss has lived on the northwest branch of the Severn River on Heywoods Creek for 50 years, 20 of those in her current home in Hayes, Virginia. "I've seen a lot of changes over the years. Thirty years ago there were oysters here and now they're long gone," says Burruss.

In 2003, the retired schoolteacher and member of the Gloucester County school board saw the most dramatic change yet, as Isabel took more than 5 inches of sediments from the wetlands around her home.

"Since Isabel, I've watched as the high tide has encroached closer and closer to the house and I knew that something had to be done," explained Burruss. "If the water kept coming up, I wouldn't have any yard left at all." Burruss needed help with erosion control.

In Virginia, since 1972, any work on tidal shoreline or wetlands, no matter how small, requires a permit. "Our goal is no net loss, avoiding any shoreline changes that we can, or at least minimizing the impact," says Pam Mason, Marine Scientist with VIMS' Center for Coastal Resources Management. Her

job is to review the permit applications for Gloucester and Matthews counties. Other VIMS staff review projects in the other tidewater counties.

In July, Burruss submitted a *Joint Permit Application for Activities in Waters and Wetlands of the Commonwealth of Virginia* to the Virginia Marine Resources Commission (VMRC), the state agency charged with overseeing the Commonwealth's Tidal Wetlands Act. The Act was established in 1972 to preserve the state's tidal wetlands.

VMRC in turn forwards the application to the local county Wetlands Board and VIMS for review. VIMS' role in the permit process is strictly advisory, providing technical and scientific advice to help the Wetlands Board make an informed decision about each project.

Burruss' original permit requested permission to construct 150 feet of timber bulkhead and 30 feet of riprap to protect the front of the house and yard from flooding and erosion, a project that would result in the loss of more than

2,400 square feet of wetlands.

After visiting the site, Mason submitted a VIMS report to the Gloucester County Wetlands Board and Burruss. She found that the original proposal was not necessarily the best solution to address Burruss' tidal flooding. Mason concluded that Burruss could protect her upland property and its associated ecological functions while still protecting much of the 2,400 square feet of tidal marsh.

As an alternative, Mason suggested the use of either a revetment or soil berm (levee) placed landward of the wetlands to provide the change in elevation requested. Either option would more closely follow the existing contour to reduce the wetlands loss. The revised project's lighter approach only impacted 730 square feet of wetlands, a third of the original plan.

"I was glad the suggestion was made and we were able to reach a compromise," says Burruss. She revised her project and submitted new drawings that were accepted by the Wetlands Board in August. "I was willing to try a dirt berm with the understanding that if I am still having problems in one year, I could put in a solid timber bulkhead."

Mason was pleased that Burruss and the Wetlands

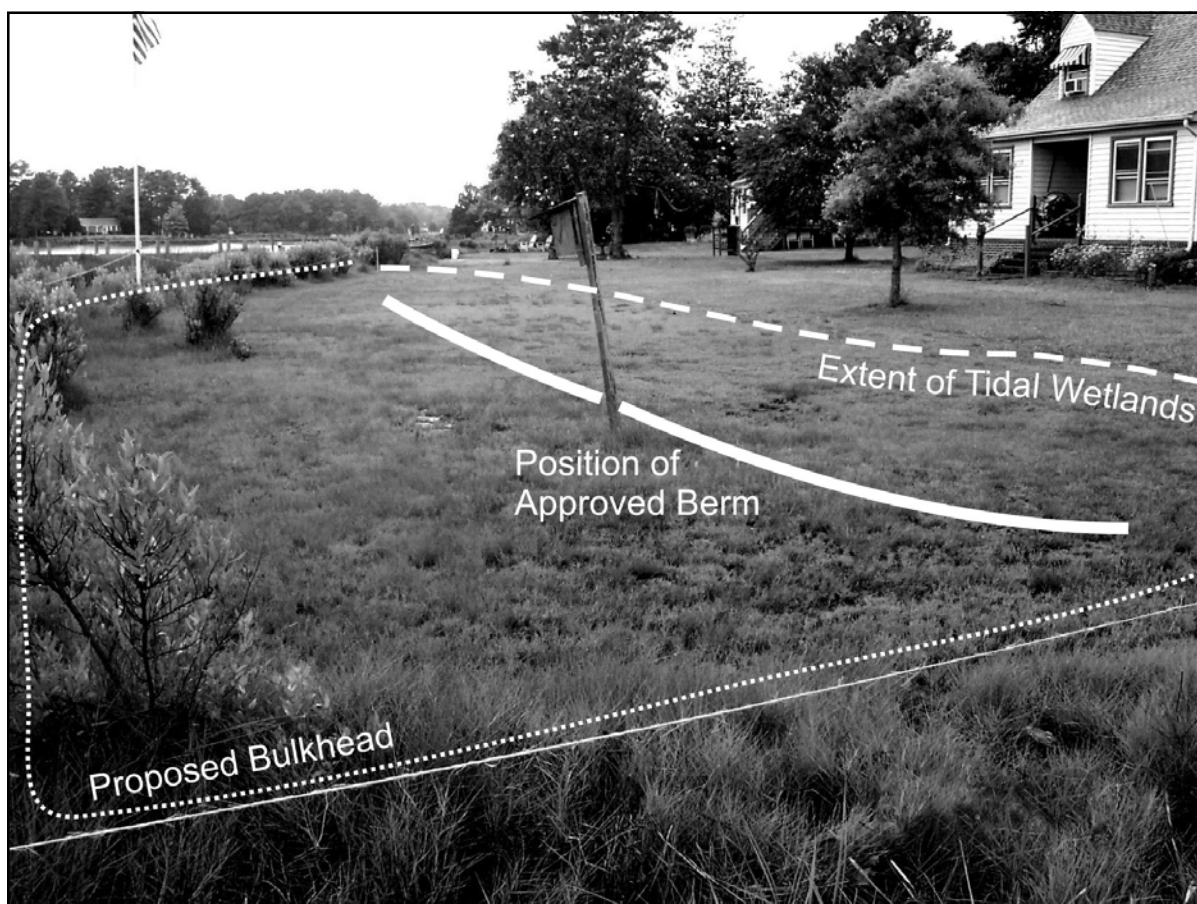
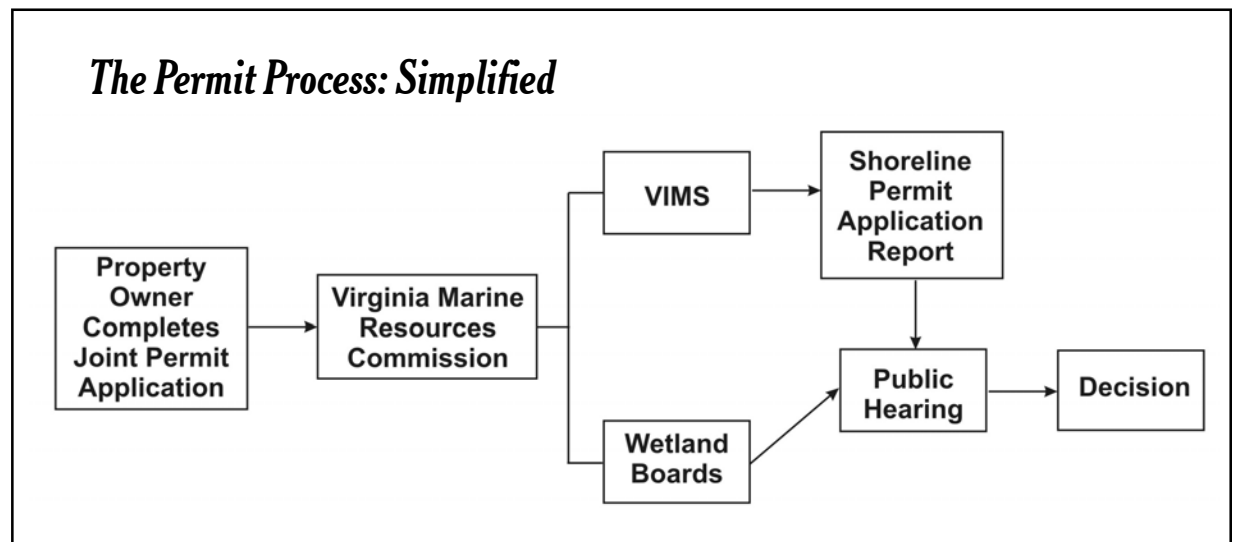
Board decided to take her advice to pursue another option. "One thing to remember is that landscapes and shorelines are in a constant state of change. One trend we have observed in the tidewater area is that the sea level has been rising," explains Mason. "Not all erosion is bad. Marshes need to trap sediment to keep pace with the relative water level. The only way they can do that is through sediment in the water. No sediment in the water, no marsh. So not all shorelines need to be hardened and protected."

"Our approach is: 'less is more.' We try to help homeowners determine and do just what they need to do. Many projects do not need to go property line to property line. From an ecological perspective, we prefer to take a softer approach, allowing as much of the biotic component to remain to continue the ecological function of the marsh."

Burruss' berm was completed in September and she is happy with the results. The entire process from application submission to completed berm took just 4 months and Burruss feels everybody gained.

"I feel very good that I could persevere and do all of this myself. I think the berm is great. I have the same herons, ducks, and marsh grass to enjoy. And now my grandchildren can play in my front yard and not in the mud." "Pam was extremely knowledgeable and really knows her business," adds Burruss. She was also favorably impressed with the Wetlands Board. "They were most helpful and I think they get a bad rap sometimes. The revised berm project cost considerably less than the original bulkhead project. And saving my front yard will also enhance my real estate value."

-by Leslie McCullough



The Burruss property with lines showing the proposed location of the timber bulkhead (dotted), the approved position of the soil berm (solid), and the landward extent of the tidal wetlands (dashed), which were routinely mowed.