

September 29, 2021

Dear Supervisor Storck:

I'm writing to support the proposed amendments to the Comprehensive Plan and the wetlands ordinance, which basically codify policy that was adopted by the Wetlands Board a decade or so ago.

I urge you to vote for them.

From what I hear, there seems to be a great deal of misunderstanding and misinformation about the wetlands ordinance and what adoption of these changes will mean. I thought it might be useful to address some of these concerns and questions.

Purpose of Wetlands Ordinance. Some people seem to misunderstand the primary purpose of the wetlands ordinance, which is not to protect the water quality flowing into the Chesapeake Bay (that is the purpose of the Chesapeake Bay Preservation Ordinance) but rather to protect wetlands, shorelines, and sensitive coastal habitats.

This is spelled out in the Fairfax County Code: "In fulfilling its responsibilities under this Ordinance, the [Wetlands] Board shall preserve and prevent the despoliation and destruction of wetlands within its jurisdiction while accommodating necessary economic development consistent with wetlands preservation" (see Section 116-1-9 of the ordinance, [here](#)).

Why and how to protect wetlands? The wisdom of protecting wetlands is supported by a vast research literature demonstrating the benefits of wetlands in mitigating flooding, providing essential habitat for many species of birds, fish, and other wildlife, improving water quality through absorption of nutrients and sediments, and protecting upland areas from erosion.

To preserve and protect wetlands, Virginia gives preference to living shoreline approaches to stabilizing shorelines. That preference is based upon a great deal of scientific, peer-reviewed literature that demonstrates the value of living shoreline approaches in providing habitat and preserving and protecting water quality, as well as preventing erosion. Many technical studies done by Virginia Institute of Marine Sciences can be found [here](#).

The rock sill built in the Potomac River to protect Dyke Marsh from further destruction due to storms blowing up the river is an example of a living shoreline. The rock sill slows the erosive force of waves and allows sediment to slowly build up behind the sill, to reclaim the marsh from the river.

By contrast, traditional hardened approaches—such as bulkheads and rip-rap—sever the connection between shoreline and shore, alter and destroy habitats (especially shallow water habitat) that provide essential nursery and spawning areas, protection from predators, nesting areas for birds, and foraging for fish and many aquatic species, birds, and other wildlife. Hardened approaches also increase erosive forces on adjacent properties.

How does the wetlands board decide to grant a permit? The appropriate approach for stabilizing a shoreline is considered by the wetlands board on a case-by-case basis. Every property is different—the slope of the land, the closeness of structures to the shore, the fetch, etc.—and one size does not fit all. Living shorelines cover a variety of methods, and may include placement of rock away from the shoreline (as was done in Dyke Marsh) to break the erosive force of waves, or grading a steep bank, or

planting vegetation to hold soil, slow down and absorb upland runoff, and absorb the force of waves against the shore. Here's a 12 minute [movie](#) that shows various living shoreline methods.

While the law gives preference to living shorelines, it does not mandate them, as some are claiming. The property owner may make the case for a different form of shoreline stabilization. In high energy environments, especially near houses or other manmade structures, hardened shorelines may be the only effective way to stabilize a shoreline. A [decision support tool](#) created by VIMS can help people decide what sort of shoreline stabilization is appropriate for their situation.

In the end, the wetlands board grants a permit when "The anticipated public and private benefit of the proposed activity exceeds its anticipated public and private detriment," as the law states.

Some cast doubt on the neutrality or legitimacy of Wetlands Board decisions by calling it a "political body." Members of the Wetlands Board are appointed by the Board of Supervisors, like hundreds of other boards, authorities, and commissions in Fairfax County. It is not a political body. In my experience on the board, political considerations never entered into or affected its deliberations or decisions.

Should old projects be grandfathered in? Some people argue that old projects should be grandfathered in, so that (for example) a homeowner who has built a bulkhead in the past has the right to rebuild it forever. This seems inadvisable and I oppose it. On Little Hunting Creek, for example, a number of bulkheads were built without benefit of a permit from the Wetlands Board or any other agency. Some were improperly constructed and jut out into the channel, beyond mean low tide. They are likely to have a short lifespan because of their improper construction and the infiltration of water behind them. They should not be grandfathered in; they will fail again in short order, causing repeated and unnecessary expense to the homeowner. Other bulkheads were built for aesthetic reasons, because a homeowner liked the look, not because they were needed to stabilize a shoreline. Illegal and damaging and unnecessary shoreline structures should not be rebuilt automatically at a homeowner's request unless they are actually needed to stabilize the shoreline.

Any new or replacement shoreline stabilization project requires engineering consultation and permitting expense. And should! The fact that the ancients built bulkheads and revetments does not mean they are the most effective way to control erosion, or preserve water quality, wildlife habitat, or the natural functions of creeks. If a property owner wants to install new stabilization or reinforce an existing one, the engineering should meet current standards. Moreover, the state law now requires new shoreline projects planning to include consideration of sea level rise, which was not required in the past.

On the other hand, a [decision tree](#) published by VIMS to aid property owners in decisions about shoreline protection treats already armored shorelines differently from others, which suggests that a form of grandfathering is already built into the process.

Finally, I note that the discussion so far has focused almost exclusively on the concerns of shoreline property owners. Many others also have an interest in preserving Fairfax County wetlands, and they also should be consulted, and their views reflected in decisions on this matter.

I hope this is helpful. Thank you for your consideration.

Elizabeth Martin