

3 Beach Drive
811 Robin Hood Hill
Sherwood Forest, Maryland 21405

19 September 2016

Mr. Rick Hook
President
Sherwood Forest Club
Sherwood Forest, MD 21405

Dear Rick:

Thank you for your helpful letter regarding a living shoreline on Robin Hood Flats sent on August 3, 2016. We are writing today to share with you and the Board what we have learned about the feasibility of building a living shoreline on the Flats instead of a revetment.

As we wrote you previously, experts from the Maryland Department of Natural Resources (DNR) Shoreline Conservation Service (SCS) visited Sherwood on July 20. Following their visit, they prepared a detailed "Shoreline Erosion Site Inspection Report." That report is attached to this letter for your reference.

You will note that it is highly favorable towards a living shoreline on Robin Hood Flats, rating it as more likely to meet Sherwood Forest's goals than would a revetment. The authors bring significant credentials to the task. Bhaskar Subramanian heads the Shoreline Conservation Service and has a Ph.D. in shoreline conservation. His colleague Rebecca Swerida has a master's degree in marine biology and has studied submerged aquatic vegetation. She is a natural resources biologist at the Maryland Department of Natural Resources.

Summarizing the main points of DNR's report we will respond to selected points you made in your letter to us.

- DNR's main conclusion and recommendation is as follows:

A combination of over land flow and storm event wave activity is most likely the cause of erosion at this shoreline. It was determined that the site's erosion could be controlled with a Living Shoreline project while creating habitat and maintaining natural processes.

- Excerpted from "Recommendations," p. 7 of 13

- The DNR specifically addressed one of the concerns you expressed in your letter to us that "The Robin Hood Flats area was deemed not likely to be permittable in 2010 due to the presence of SAV [submerged aquatic vegetation]." DNR's experts obtained five years of aerial photographic records of the SAV off Robin Hood Flats and concluded that:

The presence of mapped SAV beds in the area of the Sherwood Forest shoreline does not exclude the possibility of a living shoreline project....

- Excerpted from "Additional Comments," p. 9 of 13

Separately, DNR provided a set of aerial photographs mapping SAV off Robin Hood Flats and measured the distance of the SAV from the shore. DNR concluded that even in the year the SAV came closest to the Flats it was several times beyond the distance that would be required to install a sill as an energy barrier as part of a living shoreline. A composite of those maps is attached to this letter.

- *You stated in your letter that a living shoreline would cost more than a revetment. **DNR estimates that the costs could be comparable and perhaps even cheaper.*** Please note that the erosion rates of the Flats' shoreline as measured by DNR using historical records back to the year 1865 fall within the "slight erosion" category. Specifically, DNR wrote: Historic Rate of Erosion (Mean): 0.36 feet per year (Slight Erosion).

- Excerpted from table, p. 2 of 13. See also map of "Historic Shorelines," p. 3

DNR estimates the cost per linear foot of a living shoreline should be 25 to 45 percent cheaper than for a revetment. DNR suggests cost estimate could be reduced by using the rock already in place on the Flats as well as in design choices.

- *Your letter suggested maintenance costs would be higher than for a living shoreline. **DNR indicates that there are limited maintenance costs including debris removal and planting of plants appropriate for shoreline protection, but these costs are small compared to construction costs.*** The bigger concern is that a revetment, according to DNR, is more likely to fail than a living shoreline. DNR's experts pointed out the existing hard shore on the flats is failing because of storm water runoff.

DNR made other very important points, which we urge you to consider:

- Sherwood already has a successful, if limited in scope, living shoreline at Robin Hood Beach.
- The existing riprap revetment structure installed this year on Robin Hood Flats is increasingly likely to be overtopped. (See "Low Profile Stone Sill" on p. 8 of 13). Overtopping is a reason for failure of the existing hard shore on the Flats and is likely to result in the failure of any newly installed revetment. Failure comes as flooding undermines the structure causing it to fail. **DNR noted that water has already on occasion accumulated behind the new revetment, which then serves as a kind of dam creating a reservoir behind the rock.**
- **Better use of native plants and a wider zone of vegetation on the Flats could help control overland erosion, which DNR concludes is a major cause of erosion on our shoreline.** DNR offered a source for reasonably priced plants.
- During DNR's visit it was noted that **the limited vegetation effort behind the new revetment did not choose appropriate species.** Grasses and low shrubs native to a

shoreline environment would be both more effective and more likely to survive. The decorative shrubs planted are inappropriate because they are neither salt tolerant—and there will be flooding from the river—and lack the ability to reduce erosion as well as the native species recommended by DNR (see p. 8 of 13). Addressing the issue of maintenance, these new plantings have required hand trimming of grasses growing around them and watering by hoses. Maintenance crews have applied herbicides to the revetment to kill vegetation.

We agree with DNR on these points, especially that of flooding behind the revetment, having observed flooding there ourselves during several high water events this year. We would add that we, and a number of our neighbors who actually live along the Flats, consider the new revetment to be both unsightly and devoid of life.

In addition, some of our neighbors have expressed anxiety about the flooding and the creation of yet more reservoirs to hold water as potentially contributing to mosquito breeding and the spread of the Zika virus-carrying mosquitos.

One final, important point. To ascertain whether the Maryland Department of Environment (MDE) would be willing to change the existing permit to one for a living shoreline, we hired an attorney name Jesse Iliff. Iliff represented Pines-on-the-Severn in its successful recent lawsuit to get MDE to approve its permit for a living shoreline. The attorney enquired of MDE on a “no-name basis” whether it would consider changing the permit to one for a living shoreline. *As you can see in the attached letter, our attorney learned that both MDE and DNR agreed to cooperate with an applicant if the community wishes to do so. **We are prepared to pay for the cost of the attorney’s fees to begin that process, if you are willing to pursue it.***

Thank you for your attention to our concerns. We have an opportunity to protect an area of the Severn shoreline that is uniquely Sherwood preserving it for our enjoyment now and in the future. We hope you will work with us to realize this opportunity. We would like to continue a discussion with interested club members, board members, and perhaps get the DNR experts back to do a briefing and answer questions.

Sincerely,

Elaine Nagey, 3 Beach Road, Sherwood Forest, Maryland

William Chandler, 811 Robin Hood Hill, Sherwood Forest, Maryland