

LIVING SHORELINE CASE STUDY

South River Shoreline

Maryland

INNOVATION TO INTEGRITY

Scott and Jan took a chance on a new approach to protect their home from erosion and runoff.

When Scott and Jan purchased their waterfront property in the early 1990's, they noticed a failing sea wall at their property line. At the time, living shorelines were less common. The couple believed there was no alternative to a sea wall and thus no options to address the eroding riverbank on their property. When Hurricane Isabel struck in 2003, they faced even more issues. A large deposit of sand surrounded their sea wall, which disrupted wave energy and prevented the sand from naturally depositing onto the shore. In another instance, a live tree fell into the water which destroyed a portion of the riverbank. Prolonged heavy rains drenched the ground and eventually saturated their yard, which created the conditions for the fallen tree.

"Looking at the original state of it, with this rotting sea wall with no tidal flow and a lot of stagnant water and muck behind it. The water on the house-side of the seawall is now much better quality"

– SCOTT, HOMEOWNER

Meanwhile, Scott and Jan had always been interested in environmental causes and were active members of the Arundel Rivers Federation. They learned about living shoreline solutions through their membership with the Federation and presentations hosted by the Chesapeake Bay Foundation. By way of living on the water, they became aware of a neighbor and marine contractor, John, who had completed numerous restoration projects on the river. The homeowners relied heavily on John as source of expertise. He devised an original project plan that would also cut down on potential costs. He proposed that sections of the sea wall be removed, with native grasses planted in between the gaps of the remaining wall. Rocks and stones would be placed on both sides of the sea wall for reinforcement. He was also responsible for submitting permits and coordinating with an engineer to design and install the living shoreline. Given the uncommon nature of the project and their expansive 600 linear-foot shoreline, it took several years for permits to be approved by the County and the State of Maryland.



Scott and Jan admit that their process may have been different compared to most homeowners, considering the length of their shoreline and the uniqueness of their hybrid design. Scott and Jan did initially apply for grants but found that if they wanted to pursue their specific design, they would have to fund it independently. Scott and Jan were willing to make an investment to execute their vision. Based on their experience, necessary funding for a living shoreline will vary based on shoreline length and wave energy. The overall construction of their living shoreline took about a month to complete.

"I was happy about the fact that we could have wetlands, wildlife and a habitat for animals, because if you've just got rip rap or a wall, you've taken away those opportunities for the wildlife."

– SCOTT, HOMEOWNER

The homeowners have had their living shoreline for twelve years now and have noticed a significant increase in native plants and wildlife. In addition to their living shoreline, they have also installed a rain garden at the front of their property to prevent runoff. They believe these two features in tandem have created a positive impact in protecting and beautifying their property. Since the initial installation, they have created more openings in the sea wall to make space for additional native grasses. Because of their living shoreline and the openings in their sea wall, they have created the conditions for a sandy beach. They now enjoy launching kayaks and paddle boards from their beach, something they never thought was possible before. Recently, they have been working with the Arundel Rivers Federation to address invasive plants on their property and introduce more native species. They believe their living shoreline was well worth the time and effort, and that other property owners who face similar challenges should consider a living shoreline. They also recommend that waterfront property owners invest in regular maintenance to further protect their living shoreline and rain garden investment. Along with a better protected property, Scott and Jan enjoy their property even more with wildlife sightings and more time spent on the water.