

SBPF
FEBRUARY 2015 PROJECT STATUS
Key Questions

1. How did the geotubes fare during the blizzard? What about the jute terrace on a neighboring property?

We are pleased to report that the geotubes absorbed the impact from Juno and held up well. During the storm, some sand washed away from all three tiers and ends of the geotubes, mimicking what would happen during a normal storm, but the bluff was fully protected. Though the nearby jute terracing also performed well, what distinguishes the geotubes is that they are capable of withstanding several major storms in a row without being replaced. While Juno was an intense storm, it was fairly short. Jute terracing will frequently split in the middle of an intense storm or series of storms, when replacement can be difficult, resulting in zero erosion protection just when it is needed the most.

2. Will you be able to provide enough sand to cover the geotubes again? When will this take place?

Prior to the storm, we had begun replenishing sand (as part of our annual commitment to deliver sand cover that exceeds best practices); this was halted due to both Juno and subsequent storms. Sand maintenance has been completed with enough sand for two more normal storms now in place.

3. The impact of so many dump trucks needed for sand delivery seems to be a weakness. Is there another way of providing sand?

The current system requires about 900 dump truck loads per year, delivered only during the off-season. Trucking takes place in three to five day periods, two to three times per year. The impact is counterbalanced by the positive benefits of protecting our community in a way that assures adjacent beaches continue to receive the sand that would naturally erode and wash to other shores and beaches.

Other methods to limit days of trucking are being explored for a larger project, as is sand delivery from the sea.

4. People are always concerned about scour in relation to erosion control projects. What is scour? Is there a way to prevent it? If so, how?

End scour leading to flanking or exaggerated erosion at the end of a geotube or seawall can occur during large storms unless angled returns which redirect the wave deflection are installed on the ends. These returns are part of the Sconset Beach geotube project design, but ConCom opposition has prevented their installation so far. Once installed, these returns, combined with adequate sand cover, should prevent end scour. Of course, unprotected areas adjacent to the geotubes can be expected to continue to experience normal erosion, which over time will result

in protected coastal areas protruding farther seaward than unprotected areas. This is different from end scour.

Scour can also occur in front of the geotubes during large storms where waves crash against the system. The beach level often drops 4-6 feet under normal winter storm conditions; this process can be intensified in front of geotubes but the beach level naturally recovers quickly to its normal level after the storm ends.

5. Are geotubes a long term solution to the problem of erosion or simply a band aid for an issue that cannot be solved?

Our team of professional coastal engineers and other experts has every confidence that geotubes can limit the negative impacts of erosion. We believe that by continuing to monitor their performance and collect data we will learn more specifically how this approach can benefit Sconset Beach, on a long term, ongoing basis.

6. What solution for addressing the impact of road runoff from Baxter Road has been approved?

On February 4, 2015, the ConCom approved a system to direct road runoff to a series of catch basins tied to ground water infiltration along the road. This should significantly limit erosion currently threatening the bluff from above.

7. When will you be able to begin planting vegetation? How will that impact efforts to protect the Bluff?

The ConCom completed its hearing on February 4, 2015 on a standalone proposal to vegetate the face of the bluff above the geotubes. It is expected that a formal decision may come from the ConCom on February 18. In combination with effective management of road runoff, the vegetation should result in full stabilization as long as the toe of the bluff is protected, as is now the case with the geotubes. If approved, we expect to install vegetation this spring.

8. Why not install an offshore breakwater instead of geotubes?

Given the severity of the threat of sea level rise to Nantucket, we believe it is important to try a range of methods that could be successful. We believe that the geotubes hold the most promise for the imminent threat to Sconset Beach and Bluff and are focused on implementing and evaluating this method. We also support efforts by others to try other things.

9. Is the Conservation Commission moving forward with an appeal of the state DEP decision? How long would a full appeal process take? How does that dovetail with Settlement talks as initiated by the Board of Selectmen?

We are pleased that the Board of Selectmen has initiated Settlement talks that would allow us to maintain the current Geotube system as approved by the DEP. However, if no settlement is reached and the ConCom moves forward with an appeal, lawyers estimate 2 to 3 years to run its

full course at considerable expense to both the Town and SBPF. Meanwhile, the geotubes would remain in place.

If these talks are successful, we believe the Conservation Commission would drop its appeal.

10. What do you expect to be the result of the settlement talks?

It is our hope that the Settlement will allow us to move forward with a program that is in keeping with the DEP's approval, addresses road runoff and supports vegetation planting on the Bluff. We believe that the DEP's approval is well founded based on the facts and science and that any appeal to prevent our project is unlikely to be successful and would be costly to both us and the Town. We hope that a fair agreement can be reached, allowing us study what has been installed in order to learn how the geotube system works in practice and whether any unexpected negative impacts result. As we have noted many times before, should negative impacts be identified, funds are in escrow to remove the geotube system.