



Photo 1



Photo 2



Photo 3

Subject: First Hand Report - Visualized

by Jim O'Connell

Hello all:

A few interesting tidbits about the beach, snow/sand fencing, & cobble berm responding to the E-SE-NE-N storm: (however the best is yet to come -tonight!).

Notice how the snow/sand fence swings up with the up-rushing wave in the photos, (then swings seaward with the wave backrush). ** That is the premise for our experimental snow/sand fence installation at the 1st pedestrian crossover! -- i.e. to swing with the stormwave & thus NOT be destroyed, while capturing wind-blown sand in non-wave conditions. However, approx 8" of sand has accumulated (pre-storm) at those fences -prohibiting them from swinging.

The 'left over' screened material from the re-building of the cobble berm (<4" pebble) was placed along the seaward dune scarp immediately north & south of the 3rd crossover (the dune had an approximate 3-4' vertical scarp). If we didn't place that material along the seaward dune scarp, I suggest we would/could have lost a considerable volume of that dune! It acted as a sacrificial lamb. That is a storm erosional hot spot! Waves did 'overwash' the new re-hab'd dune to the road where in the photo the wave up-rush ends. (photo 3)

The re-constructed cobble berm held up well -- but of course the storm was from the eastern quads. However, note in the photo that some of the smaller pebble (<4") was transported onto the road. The 'cobble' (>4") was not transported. Apparently, 4" - 8" cobble may be optimum in that location! (photo 4)

The 3rd vehicle crossover - as all of the crossovers -- are avenues for storm wave overwash. The 3rd crossover overwashed (under & around my auto!). (photo 5)

This photo reveals what may be Duxbury Beach Reservation's next major task: elevating the road in strategic locations. The road floods in predictable locations at elevated storm tides. With relative sea level rise accelerating, this road flooding will become more frequent - in the not to distant future. (photo 6)

Hope you enjoyed my selected Visual Lessons from a NE STORM!!

Tommorrow will reveal more... as do all storms -- if we observe -- & DBR continues to do so! -- as the DBR teachers who have come before us have shown!

Regards,
Jim O'Connell



Photo 4

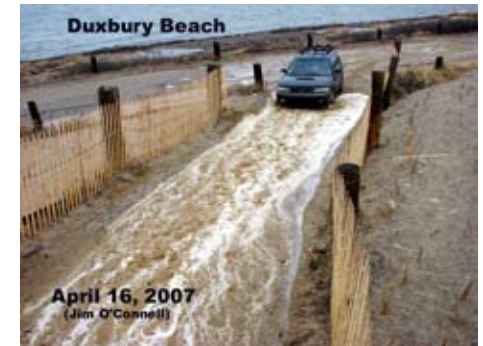


Photo 5



Photo 6

