

Hayle Beach Erosion

From the discussion we had in Bodmin a few months ago, I remember that Nick specifically asked how can we have accretion at Hayle beach when there has been such a lot of erosion? As a result of the Interim report from the Plymouth Coastal Observatory in August 2011, this question has been asked by many people

I designed the attached diagram to explain the phenomenon. See the cross-sectional diagrams, (Figure 1 & 2).

This on initial views looks like the beach has been accreting sand, when in fact beach levels have dropped dramatically. How can this be? Well look at it in context.

It is a cross-section showing % increases in beach extent. Beach levels/ heights can reduce dramatically whilst the beach extends out in a broad flat manner. My cross sections show how at face value it can look like accretion but is in fact erosion. The source of the sand that has increased the beach extent is the dunes and this is clearly shown on Profile B of my diagram.

I hope my diagram helps to explain the anomaly.

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