

ASSESSING FLOOD RISK TO NEW HOUSING ON HAYLING SEAFRONT

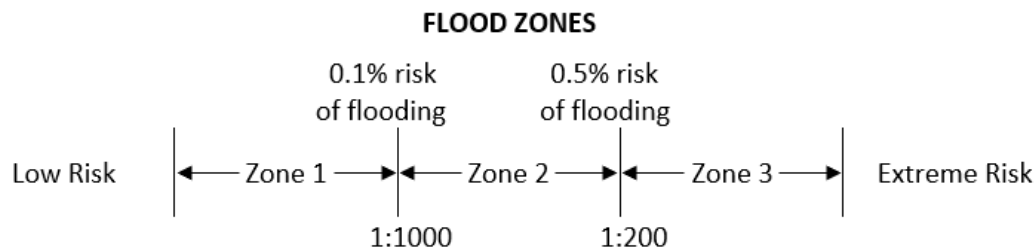
WE HAVE been looking at Havant Borough Council's Strategic Flood Risk Assessment of the Local Plan Sites dated 2018, and became interested in plans for building new homes in what can only be described as an area of high flood risk. (This document can be viewed by searching on your browser for *Strategic Flood Risk Havant Borough Council* and then going to *Appendix C*.)

In our view, these assessments are not complete, and raise questions on a broader scale.

- The flood risk assessments for the four Hayling Island locations in the document (HY16-19) highlight incorrect statements which say the entire coast is categorised as *Hold the Line*. This is not true. A substantial section of the beach has been re-categorised as *No Active Intervention*, as is a significant section of the west coast of Hayling Island, which is owned by Hampshire County Council. Also, the east coast from Northney down to Cockle Rythe, although designated as *Hold The Line*, has the caveat of *No Public Funding Available*.

A *Hold The Line* status does not of itself ensure any funding under the existing Government Housing Flood Protection Algorithm. Only the Eastoke shingle banking qualifies. The residents of the Kench (a *Hold The Line* area) are constructing and funding their own flood defences, and Langstone residents have been asked to contribute to the sea defences there. In order to protect Hayling Island, alternate funding sources will need to be established.

- The document's references to a 1:200 year protection is problematic, and can easily mislead.



You will see that each zone includes a wide range of flood risk. If you were standing in a Zone 2 area, you could well be only one centimetre above the adjacent Zone 3 site. Flood Zone 3 does not mean a 1:200 year risk – it is just the lowest point in the range, for example the official definition of Zone 3 is “*Land having a 1:200 OR GREATER annual probability of sea flooding.*”

- Moving to the Beachfront flood risks. The inner harbour's 1:200 extreme flood levels of 3.4 mtrs AOD (*Above Ordnance Datum*) in 2020 out to 4.5 mtrs AOD in 2115, only forms one element of the Beach Coast risk – additional elements include beach slope, long-distance swells, local storms, low pressure, tide height, wind strength and direction. These can combine to generate bimodal wave forms with much higher sea levels and flood risks. The key element of the tidal impact of bimodal waves – long-distance swells – is not easily forecasted. Therefore any early warning for these hazardous risks is unlikely. Pic 1 clearly shows a combination of swell waves and the local storm impact, resulting in the overtopping of the beachline, taken at the Inn on the Beach in 2014.

Coastal Partners are engaged in a detailed investigation of the bimodal impacts. The results will be available with their Coastal Strategy being published next year.

However, the following facts are known.

The shingle barrier at Eastoke is 5.6 mtrs AOD. Pic 2 shows rectification works after serious erosion on the barrier nearing completion at Eastoke Corner on 24 February 2021. Pic 3 shows the result of 2m high overtopping and erosion in the same area on 12 March 2021 only a few weeks later. The rest of the beach, from Eastoke Corner to West Beach, is 4 to 5 mtrs AOD. We know that the Environment Agency predicts a sea level rise of 1 mtr

AOD out to 2100. This is based on the warming of the planet being held to 1.5°C. We wait for the outcome of COP26 to see if that is achievable. Logic would indicate that the Eastoke Barrier would have to be raised to 6.6 mtrs AOD to achieve the same level of protection. The rest of the beach does not enjoy this protection barrier, so the flood risk all along the Seafront is unknown, and has not been estimated in the document's flood risk assessments.

The subtlety of separating the small areas by Flood Zones has little merit as all the sites are between 3-4 mtrs AOD, and all, in reality, will flood together.

It is also critical to note that the Environment Agency requirements are for Flood Risk mitigation for the lifetime of the development (100 years.) We believe that Coastal Partners are currently working on a time horizon of half that in their planning.

We would also ask how the Sustainable Drainage Systems and the Sewage Systems required for new developments will be designed to continue to function during these events.

- We believe we have demonstrated that the Council's document does not present accurate flood risk assessments of their housing proposals. In addition, the question should be asked why sites in unpredictable and high flood risk areas are being designated for residential building.

- We stress that this article is not a critique of the Seafront Regeneration Project, which we agree is a long overdue project to improve the major leisure destination within the Borough.

Dave Parham, Save Our Island



Pic 1: Showing the long bimodal waves coming in that day



Pic 2: Showing the rectification works at Eastoke



Pic 3: Showing the erosion at Eastoke 2 weeks after Pic 2 was taken