

Written representation for Issue Specific Hearing 11 (ISH11) on Flooding, Water and Coastal Processes

5. Outline Drainage Strategy [REP2-033] Outstanding issues relating to the Outline Drainage Strategy:

Note: IDB has not had time to review the updated Drainage Strategy submitted at Deadline 7, prior to ISH 11.

The current drainage strategy relies on infiltration being possible in most cases. Although the applicant has informally provided the IDB with ground investigation reports and calculations, we agree with and support Suffolk County Council's oral representation that much of this does not comply with BRE 365 methodology and those that do have no accompanying plan to indicate where the investigations took place. This means that the IDB has not seen the evidence required to be confident that the level of infiltration assumed will be achieved and that the currently proposed basins and swales are appropriate. Having said this, the IDB will defer to Suffolk County Council (the Lead Local Flood Authority) on both of these issues.

(a) Main Development Site, including Water Management Zones

We have the following points to make:

- The discharge rate from attenuation basins is proposed at 1l/s/ha which the IDB supports, however the discharge rates have been determined using the entire catchment of each WMZ. For example WMZ6 has a catchment of 47.77ha, and therefore proposes a discharge rate of 47.77l/s. However, the calculations only account for an impermeable area of 27.7ha (which still discharges at 47.77l/s). The consequence of this is that the remaining 20.06ha of the 47.77ha catchment is not represented in the model. Working on the assumption that the unrepresented 20.06ha continued to discharge as in the greenfield scenario, this greenfield discharge would runoff in addition to the 47.77l/s which is supposed to represent the entire catchment, therefore increasing runoff rates beyond the design. According to best practice we understand that either the greenfield runoff rate should be amended to represent only



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the impermeable area served, or the entire catchment should be represented in the source control calculations.

- WMZ's 4 is proposed to have an additional discharge of 1l/s/ha to help reduce the half drain times, however, the location of this additional discharge has not been stated.
- Very little detail has been provided on WMZs 7, 8 and 9. The IDB is informally aware that there will be at least 3 separate phases (early construction, late construction and operation) all with varying details, none of which have been provided to the IDB to date.
- The realignment of the Sizewell drain remains of significant interest to the IDB. Again, limited information has been provided by the applicant. The Board has designated this watercourse as an 'adopted watercourse' using its permissive powers to ensure that the drain is adequately maintained. With the realignment and the installation of the proposed works (the Main Development Site) the Board is concerned that IDB access to the watercourse may not be appropriately considered, thus possibly leading to:
 - a) unforeseen environmental impacts if maintenance needs to be undertaken from the western bank
 - b) changes to layout within the red line boundary if maintenance is to be undertaken from the eastern side.
- TMO and CDO – The IDB is concerned about the lack of clarity as to when this discharge of surface water to the sea will be used. Specifically:
 - Officers of the Board understand and accept that the main use of the TMO and CDO is for events greater than the 1:100+CC, however, the use of the TMO and CDO to support the long drain down times of the attenuation/infiltration basins in some of the WMZs (half drain down times often exceed the 24h maximum recommended in national guidance) raises some concern. The Board would however ultimately defer to the Lead Local Flood Authority regarding basin design.
 - Appendix E TMO Operations Summary (D3) [REP5-120] states that when the Sizewell Drain is "overtopped" the TMO will be used. The IDB would like to point out that this overtopping is difficult to define due to the marshy topography. The same document (confirmed via discussions with the applicant) also states that it is likely to be the Environment Agency who will be asked to stipulate a suitable water level to act as a trigger point for the TMO to be switched on or off (section 2.3.3). The IDB is unsure whether the EA is aware that this may become their responsibility.

(b) Drainage strategies for Associated Development Sites

No Comment

6. Water Monitoring and Response Strategy [AS-236] Outstanding issues relating to the Water Monitoring and Response Strategy.

- According to the Water Monitoring and Response Strategy trigger levels are to be secured through the formal permitting and licencing regimes. The Board would therefore like further clarification on the relationship between the trigger levels proposed in the Water Monitoring Plan [REP7-075] and any formal permitting and licensing regimes, such as Land Drainage Consents under the Land Drainage Act 1991.
- The Board would like further information on whether East Suffolk Internal Drainage Board would be able to contribute to discussions held by the Environment Review Group, if trigger levels are reached within the Internal Drainage District.