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## **Bear Consulting Response to NRW comments on 28/10/2025**

**Bear Consulting Document Reference: P0644rc06**

**Date: 13/11/2025**

**Please see Bear Consulting's responses in green.**

*During a 0.5% (1 in 200 year) plus climate change allowance (2115) flood event the development is predicted to flood to a depth of 628mm. We note that the actual flood level figure has not been submitted and only the potential flood depth. Therefore, we are unable to confirm and compare the flood levels against the Finished Floor Levels (FFL's).*

The finished floor level (FFL) of 8.370 mAOD has been provided. For clarification, Tables 5 & Table 6 (Page 12 in the report) now assess the relevant 1 in 200 year scenarios as requested. It is considered the proposed development remains within the acceptable frequency thresholds as defined in TAN 15 (2025). Further detail and justification for this assessment are provided in Section 5.1 (pages 11-12) of the updated report.

*We note that the FFL's have been confirmed as 8.370m AOD. The FCA concludes the FFL's are above any 1 in 200 year flood event, including breach. It does suggest that site specific assessment has not been made of the data. There is no information in the FCA regarding the parameters of the breach assessment to know if this is a sufficient assessment.*

The JBA "Caldicot and Wentlooge Coastal VDM – Model User Report", upon which the modelling results of this FCA are based, explains that the breach simulations analysis was carried out by the HR Wallingford using the EMBREA (EMbankment BREAch) model to simulate the breaching process for 12 embankments in the Caldicot model. The closest breached location is located at Goldcliff (Breach Number 32a), approximately 5km to the south of the site. Report has been updated to suit.

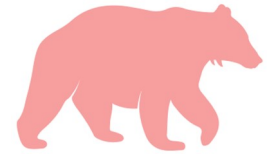
*During a 0.1% (1 in 1000 year) plus climate change allowance (2115) flood event the development is predicted to flood to a depth of 2152mm and flood velocities of 0.94m/s.*

*We note that the actual flood level figure has not been submitted and only the potential flood depth. Therefore, we are unable to confirm and compare the flood levels against the Finished Floor Levels (FFL's).*

*This depth of flooding would not be compliant with Figure 6 of TAN15.*

The analysis of the 1 in 1000-year flood event levels and associated flood velocity figures have been updated and clarified in Section 5.2 – Table 8 (page 14) of the updated report. An updated assessment has also been provided within the same section.





*The FCA concludes that all proposed building units on the site are considered extensions to the existing site use. We continue to advise that the proposed units are stand-alone units and should be designed to be flood free in this event as per TAN 15. Given that they are not constrained to adjoining existing units' levels, there may be scope to set the units higher. We would deem the proposals an extension to the existing site use rather than an extension to the units on site. We advise that this is for you as the competent authority to determine.*

The updated FCA has clarified and acknowledged that the proposals represent an extension of the existing site use and comprise stand-alone units. The finished floor levels (FFLs) have been set to match the existing building's FFL to facilitate vehicular access, essential for the operational requirements of the development.

*The FCA correctly establishes that the main source of flooding is tidal and used the Caldicot and Wentlooge Coastal Model to assess the flood risk. It does not identify any tidal flood risk associated with the River Usk, which is tidally influenced at this location, and given the much closer proximity to this source of flooding than the open coast, we would expect flood data from this source to be included. All sources of flooding should be reviewed. The Riverside Defences on the River Usk should also be assessed and breach information from this source provided.*

*Given the large tidal flood cell associated with the Coastal model, and the distance of the site from the open channel flood levels may be reduced compared to the tidal River Usk events which will be restricted to a smaller flood cell.*

The Caldicot and Wentlooge Coastal VDM – Model User Report prepared by JBA confirms that the tidal boundary for the Caldicot TUFLOW model runs parallel to the coastline and extends up the River Wye to Alcove Wood in Chepstow, and up the River Usk to the M4 Bridge in Newport. As shown in the report, the model boundary fully encompasses the proposed development site. Accordingly, the JBA modelling is considered to provide an appropriate representation of tidal flood risk associated with the relevant portion of the River Usk for the purposes of this assessment. This clarification has been incorporated within page 10 of the revised report.