

rappor



Land to North of Rectory Farm, Yatton

Persimmon Severn Valley

Summary Proof of Evidence

August 2024





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1 Introduction

- 1.1 My name is Simon Mirams C.WEM, CSci, MCIWEM, BSc (Hons). My Proof of Evidence ('PoE') – Flood Risk, has been prepared by Rappor on behalf of Persimmon Homes to support the appeal (Ref APP/D0121/W/24/3343144) in relation to outline planning application (Ref 23/P/0664/OUT) for the development of up to 190no. homes (including 50% affordable homes) to include flats and semi-detached, detached and terraced houses with a maximum height of 3 storeys at an average density of no more than 20 dwellings per net acre, 0.13ha of land reserved for Class E uses, allotments, car parking, earthworks to facilitate sustainable drainage systems, orchards, open space comprising circa 70% of the gross area including children's play with a minimum of 1no. LEAP and 2no. LAPS, bio-diversity net gain of a minimum of 20% in habitat units and 40% in hedgerow units, and all other ancillary infrastructure and enabling works with means of access from Shiners Elms for consideration. All other matters (means of access from Chescombe Road, internal access, layout, appearance and landscaping) reserved for subsequent approval.
- 1.2 I highlight here that to assist in reading my Proof that documents from 'Hydrock' and 'Brookbanks' alongside those of Rappor are referenced. The former are my previous employers under which relevant reports were prepared by me.
- 1.3 My Proof focuses on the Safe Access / Increase Flooding points raised within North Somerset Council's (NSC) Statement of Case (SoC). It is also informed by discussions with the Local Lead Flood Authority (LLFA) and the Environment Agency (EA) again on relevant matters.
- 1.4 The Proof has been structured to provide the flood risk scenario against which the appeal scheme is set. It summarises the relevant planning policy framework and material considerations then moves to a technical response to what are the two points raised in NSC's SoC:
 - (i) increased flooding;
 - (ii) access and egress.
- 1.5 NSC's SoC makes no reference to Statutory Consultees and their position in respect of the appeal scheme. I therefore comment on this in my Proof for completeness. I also draw upon the work undertaken in response to the Environment Agency's (EA) consultation response which involved a series of meetings with, and reporting through Technical Notes, the EA, Key documents, and meetings held since the first objection (Ref WX/2023/137123/01-L01, dated May 2023) as these provide useful background in identifying the evolution of the scheme (all as agreed) and how these has informed the proposed measures identified to overcome the identify level of risk.
- 1.6 From my work, and respect to the site itself, I conclude that mitigation measures are proposed that involve a combination of ground raising, raising of finished floor levels and a flood resilient approach to ensure all development is set above the predicted 1 in 200 years plus climate change flood level but also adopted a design for exceedance approach. This would ensure the development is safe throughout its design life.



2 Evidence of an Increase in Flood Risk

Response – Model Tolerances

- 2.1 It is my professional opinion that any tolerance within a hydraulic modelling should be specific to the study area, data, and complexities and therefore agreed and stated on a model-by-model basis. Presenting a ‘tolerance’ helps in the interpretation and application of the model and should accompany it. Typically, the larger the model, the larger the tolerance owing to greater limitations and greater complexities. Given the scale, complexity and known assumptions/limitation of the Woodspring Bay model a higher tolerance has been stated within the supporting modelling report and the EA agreed a higher tolerance would be ‘more reasonable’.
- 2.2 Whilst, as detailed in my Proof, the modelling generates a difference in flood depth, consideration has been given as to the cause of this between the pre and post development modelling rather than the assumption that this is an ‘increase’. For example, this could be reasonably attributed to numerical oscillations in the numerical stability of the model and could be because of (for example) uneven ground levels within the lidar causing a sudden numerical jump/change and therefore misrepresenting a change in flood level/depth of a very specific location and timestep within the model.
- 2.3 Through discussions the EA agreed that the model tolerances of the Woodspring Bay model would be in the order of 150mm (i.e. nearly ten times the difference between post and predevelopment), but they would only consider a 10mm difference ‘for planning’, within the EA Response (Dated 10th July 2024). However, the EA could not confirm the source of the 10mm allowance. Accordingly, the modelled difference in flood levels cannot be considered a definitive increase.

Response – Para 173 – Increased Risk

- 2.4 Whilst the acceptability of the increase/tolerance value remains a point of discussion, it is stated in Para 173 of the NPPF that development should ensure that flood risk is not increased elsewhere. This is supported by the Planning Practice Guidance which defines flood risk as the probability and consequence of flooding.
- 2.5 The Proof confirms that the modelling outputs have shown the proposed ground raising results in no increase in flood extent as no new properties or areas of land are ‘at risk’ during the 1 in 200 years plus climate change event and once the defences have been overwhelmed (i.e. residual risk). This highlights that the consequence of the shown numerical oscillations to existing landowners/properties would be negligible owing to the existing depths in the unlikely event of such flooding occurring.
- 2.6 Whilst this is the case, it should be noted that through the proposed ground raising, setting of finished floor levels with a freeboard above proposed ground levels, and the proposed flood resilience measures, this has been outlined as being suitable to meet the requirements of Points a through c of Para 173 but also provides confirmation that the site would be safe throughout its design and therefore in accordance with Para 170.

Exception Test

- 2.7 The Proof provides details, and confirmation, that the proposed measures to meet Part A of the Exception Test have altered from those within the originally submitted Flood Risk



Assessment (Ref:23257-HYD-XX-XX-RP-FR-0002) the current proposals (which have been discussed and agreed with the EA) are for a reduced raising of ground levels compared to the original strategy.

3 Access and Egress

3.1 The Proof provides information with respect to access and egress from the site. The Proof provides details of how this has been addressed within the submitted planning documents through a review of the timings of the flooding and confirms that from the first out of bank flooding flood water would take 15hours to first affect the site and safe access through the site onto the surrounding road network at this point can still be achieved.

3.2 Noting that the application is for Outline, the Proof outlines that the recommendation of the Flood Warning and Evacuation Plan could be secured (as is commonplace) via a pre-occupation condition.

3.3

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