

<b>TO:</b>	Horsham District Council – Planning Dept
<b>LOCATION:</b>	Land to the West of South Hill Farm, Storrington Road, Thakeham, RH20 3EN
<b>DESCRIPTION:</b>	Erection of 5no. detached dwellings with associated access, car ports and landscaping.
<b>REFERENCE:</b>	DC/25/0053
<b>RECOMMENDATION:</b>	More Information
<b>SUMMARY OF COMMENTS &amp; RECOMMENDATION:</b>	
<p>The following information has been reviewed:</p> <ul style="list-style-type: none"> <li>Storrington Road, Thakeham - Flood Risk Assessment and Drainage Strategy, (Judwaa Consulting Ltd, September 2023, Issue 1)  <u>Included Appendices:</u> <ul style="list-style-type: none"> <li>Appendix A: Proposed site plan</li> <li>Appendix B: Topographical survey</li> <li>Appendix C: Percolation test report and BGS extracts</li> <li>Appendix D: UKSuDS Water Quality toolkit output</li> <li>Appendix E: Southern Water sewer map records</li> <li>Appendix F: Greenfield runoff rate calcs</li> <li>Appendix G: Proposed drainage strategy layout</li> <li>Appendix H: Proposed drainage Calculations</li> </ul> </li> <li>Consultation Response Letter (Southern Water, 30/01/2025, reference number: DSA000040599)</li> </ul> <p>We have reviewed the information provided by the applicant in support of the planning application. The proposed surface water drainage strategy does not allow the satisfactory management and disposal of surface water from the site. The proposed discharge rate is not suitably restricted. As the surface water is to be combined with foul water via a proposed combined sewer, and discharging to an existing foul sewer, there is a risk of the drainage network becoming overwhelmed and could present a contamination risk. Consultation with Southern Water is required and approval is required prior to connection. Provision of outstanding items are detailed in the Main Comments section.</p>	
<b>MAIN COMMENTS:</b>	
<p>The following information is required:</p> <ul style="list-style-type: none"> <li>Measurement of total site area, pre- and post-development permeable and impermeable areas with supporting catchment plans and calculations must be provided. The Flood Risk Assessment and Drainage Strategy describes that the post-development impermeable area is greater than pre-development. However, the change is not quantified.</li> <li>The proposed flow rates must be restricted to the greenfield 1 in 1 year event up to and including the 1 in 100 year event with climate change. <ul style="list-style-type: none"> <li>The greenfield runoff rates in Appendix F of the Flood Risk Assessment and Drainage Strategy have not been provided pro-rata to the post-development impermeable area. The proposed discharge rate is considered to be unacceptable as this would increase flow above greenfield rates.</li> </ul> </li> </ul>	

- Practically, discharge rates should be limited to the 1 in 1-year greenfield rate or 1l/s, whichever is greater. However, if discharge is via permeable paving or other guarding SuDS device preventing debris reaching the control and so reducing the risk of blockage, discharge rates below 1 l/s will be able to be achieved.
- Clarification in Table 5 'Proposed Discharge Rates' within the Flood Risk Assessment and Drainage Strategy is required. Please clarify if the "Brownfield" heading should be Greenfield. In addition, please clarify if the "1 in 100 + 40%" event should be the 1 in 100 + 45% event. This is required as Greenfield runoff rates should be used, and the appropriate climate change peak rainfall allowance is +45% in accordance with the EA Climate Change allowances for Peak Rainfall.
- Southern Water require a formal application for a connection to the public foul sewer. As the strategy proposed is for a new connection for surface water into the existing foul water network, consultation with Southern Water is recommended. Approval is required from Southern Water for connection to the network, and the drainage strategy is reliant on this approval. It is illegal under Section 109 of the Water Industry Act 1991 to make a connection to the public sewer without approval.
- As surface water is proposed to be connected to the public foul water sewer, which is not in or adjacent to the development site, it is requested to demonstrate permission in principle or third-party agreement.
- Confirmation needs to be provided on how foul water will be managed so that it cannot back up into the surface water sewer system, which would present a flood and contamination risk.
- The storage volume required to be attenuated in the 1 in 100 + 45% climate change event has not been provided.
- FEH2022 rainfall data should be used in drainage modelling.
- The Coefficient for Volumetric Runoff (Cv) values used within drainage modelling for both the network design, and summer and winter simulation rainfall events should be set to 1.
- A detailed drainage layout plan should reference all assets showing characteristics such as; pipe sizes and materials, gradients, and manhole type, depth, size, SuDS dimensions, materials and depths.
- The Proposed Drainage Strategy Layout provided in Appendix G of the Flood Risk Assessment and Drainage Strategy shows the proposed area of permeable paving and sewer network. Discharge of future drainage conditions will be required to demonstrate that the drainage can discharge via gravity across the third party land. Construction details of all drainage features are also requested.
- Consideration of how exceedance flows for events greater than the 1 in 100 year + 45% climate change event will be managed and mitigated on site without increasing flood risks (both on site and outside the development) is requested and conveyance routes for flows exceeding this event should be provided on a plan.

- There is a risk of design head being exceeded that would result in higher rates of discharge through the flow control and increase flood risk. The design head and control should be considered in the context of the exceedance strategy.
- The Proposed Drainage Calculations provided within Appendix H of the Flood Risk Assessment and Drainage show manhole S1 and S2 are surcharging during the 1 in 1 year event, 1 in 30 year event and the 1 in 100 +45% climate change event. As the proposed discharge is to the foul sewer there is a high flood risk, therefore we require that the system does not surcharge during the 1 in 1 year event. We also require the proposed tank storage to accommodate the 1 in 100 +45% climate change event. This is to ensure the system does not present a flood risk.
- The Proposed Drainage Strategy Layout provided in Appendix G of the Flood Risk Assessment and Drainage Strategy shows manholes are proposed in close proximity of proposed trees/shrubs. There are also trees/shrubs proposed directly over sewer pipes. The impact of tree roots on sewers and manholes should be taken into consideration. Manholes must also be located so they are easily accessible.

**ANY RECOMMENDED CONDITIONS:**

Further information is requested prior to conditions being recommended.

<b>NAME:</b>	A Furness / Y Riley S Knowles / E Edney R Fisher
<b>DEPARTMENT:</b>	Horsham District Council - Drainage
<b>DATE:</b>	11/02/2025