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Lead Local Flood Authority
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Contact: Anna Mierzejewska
Email FRMConsultations@hertfordshire.gov.uk

Date 15 February 2023

Dear Miranda,

RE: 5/2022/2443 – Bricket Wood Sports And Country Club, Paintball Site & Bricket Lodge, Lye Lane, Bricket Wood, Hertfordshire, AI2 3TF

Thank you for your consultation on the above site, received on 12 January 2023 for the outline application for the demolition of existing buildings and construction of up to 115 dwellings and creation of new access. We have reviewed the application as submitted and wish to make the following comments.

We note the applicant has submitted the Flood Risk Assessment (FRA) and Sustainable Drainage Assessment report including the preliminary drainage layout and calculations.

Key Issues:

- Insufficient information has been provided in accordance with current National Planning Policy Framework (NPPF) (July 2021), the NPPF Flood Risk and Coastal Change PPG (update August 2022) and the Hertfordshire County Council policies to enable a technical assessment of the proposal to be undertaken. Therefore, it is not possible to establish whether a sustainable surface water drainage strategy can be delivered on the site or whether the proposed development will increase flood risk either onsite or elsewhere.

Therefore, we **object** to the above planning application due to a lack of suitable information being provided by the applicant.

Further information is required from the applicant in order for the LLFA to advise the Local Planning Authority the proposed development would not increase flood risk onsite and elsewhere and can demonstrate that appropriate surface water sustainable drainage techniques have been applied. The information lacking from the applicant includes the following:

1. The LLFA requires the submission of the site-specific topographical information is required at the Outline stage of planning to confirm the existing site levels and surface water features.
2. The provision of a comprehensive drainage strategy that demonstrates the application of the drainage hierarchy and the suitable selection of SuDS for the site and.
3. The proposed SuDS Layout plan was provided within the Sustainable Drainage Assessment. The surface water drainage scheme layout is proposing to use attenuation basin within the public area in the south-east of the site. It is understood the flows are proposed to be pumped to the watercourse located to the west of the development. The pumped systems for the surface water drainage should be minimised and used only where no other options are available. Robust technical justification is required. The LLFA would require both a backup pump and additional attenuation capacity (equivalent to 24 hours) for the pumped catchment to mitigate for the risk of pump failure. Further assessment of the residual flood risk to the downstream of the pumped catchment, to consider risks posed and where there is an increase in flood risk due to the proposed development.

It has been indicated the western part of the development drains directly to the proposed surface water rising main. A future detailed design should ensure there is no surcharging in the upstream system from the rising main. All flows from the western part of development should be attenuated.

The applicant also indicates that further investigation of the ground levels and connectivity of the near by watercourses is required along with landowner agreement to access the watercourses. This information and the supporting third party agreements are essential in demonstrating the viability of the proposals. The LLFA requires evidence of the third-party agreements in principle, the evidence of watercourse connectivity and the demonstration of ground and bed levels that would enable connectivity to the watercourse to be provided. These details are important to confirm the feasibility of the proposed drainage strategy.

Furthermore, the initial assessment of the permeability potential based on BGS impermeability mapping only, which indicates low potential requiring further investigation as referenced in the drainage report. The LLFA requests further onsite infiltration testing to BRE 365 to be undertaken to identify the actual permeability potential and to obtain the permeability rate to inform future design.

Discharge into watercourse has been considered which is located at a topographically higher level than the site. The SuDS assessment is only a desk-based study, and no consideration has been made to the flow direction of the existing catchment. Existing flow characteristics should be explored to establish where the site is currently being drained to and assess feasibility of utilising existing topography and natural flow paths for the future development. The Environment Agency's surface water mapping indicates a surface water flow path in the south-east corner of the site towards main river located to the east of the site (Hanstead Brook). Further investigation and information is required.

4. It is unclear whether the FEH rainfall data have been used to calculate the pre- and post-development flows off site. The LLFA requires that written commentary with supporting calculations is provided to clarify there is no increase in the surface water runoff due to the proposed development. The LLFA expects the most recent FEH rainfall method to be used.

5. It is unclear whether urban creep has been included in SuDS storage calculations. A 10% addition to impermeable area of residential areas should be provided. The LLFA requires evidence such as the adjusted calculations to be submitted to demonstrate its inclusion.
6. The applicant has not provided a water quality assessment for the proposed SuDS scheme in accordance with SuDS Manual Section 26. The LLFA requires this assessment to be submitted for each of the surface water drainage systems on the proposed development.
7. The provision of a SuDS Maintenance and Management Plan that defines the responsibility and maintenance schedule for the long-term management for each of the elements of the surface water drainage system in accordance with NPPF. This should identify who will be adopting these features for the lifetime of the development.

Reason

To prevent flooding in accordance with National Planning Policy Framework paragraph 167, 169 and 174 by ensuring the satisfactory management of local flood risk, surface water flow paths, storage and disposal of surface water from the site in a range of rainfall events and ensuring the SuDS proposed operates as designed for the lifetime of the development.

We will consider reviewing this objection if the above issues are adequately addressed.

For further advice on what we expect to be contained within the FRA to support a planning application, please refer to our Developers Guide and Checklist on our surface water drainage webpage <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/surface-water-drainage/surface-water-drainage.aspx> this link also includes HCC's policies on SuDS in Hertfordshire.

Erection of flow control structures or any culverting of an ordinary watercourse requires consent from the appropriate authority, which in this instance is Hertfordshire Lead Local Flood Authority and the Local Council (if they have specific land drainage bylaws). It is advised to discuss proposals for any works at an early stage of proposals.

In December 2022 it was announced FEH rainfall data has been updated to account for additional long term rainfall statistics and new data. As a consequence, the rainfall statistics used for surface water modelling and drainage design has changed. In some areas there is a reduction in comparison to FEH2013 and some places an increase (see [FEH22 - User Guide \(hydrosolutions.co.uk\)](#)). Any new planning applications that have not already commissioned an FRA or drainage strategy to be completed, should use the most up to date FEH22 data. Other planning applications using FEH2013 rainfall, will be accepted in the transition period up to the 1st April 2023. This includes those applications that are currently at and advanced stage or have already been submitted to the Local Planning Authority. For the avoidance of doubt the use of FSR and FEH1999 data has been superseded by FEH 2013 and 2022 and therefore, use in rainfall simulations are not accepted.

Please note if, you the Local Planning Authority review the application and decide to grant planning permission, you should notify the us, the Lead Local Flood Authority, by email at FRMConsultations@hertfordshire.gov.uk.

Yours sincerely

Anna

Anna Mierzejewska
SuDS and Watercourses Support Officer
Environment & Transport and Sustainable Growth

Annex

The following documents have been reviewed, which have been submitted to support the application;

- Flood Risk Assessment, by GeoSmart Information, Ref: 76027R1, dated 18 February 2022.
- Sustainable Drainage Assessment, by GeoSmart Information, Ref: 76027.01R1, dated 18 February 2022.