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Contact SUDS and Watercourses Team
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Date 30 September 2025

Dear Thomas,

RE: 25/01094/FP - Land To The Rear 34, Arlesey Road, Ickleford, Hitchin, Hertfordshire, SG5 3UU - Erection of nine dwellings including access, parking and landscaping.

Thank you for your consultation on the above site, received on 15 May 2025. We have reviewed the application as submitted and wish to make the following comments.

The application is a full application for residential dwellings. It is a non-major application and can be reviewed by the LLFA as per paragraph 174 of NPPF and paragraph 051 of PPG Flood Risk and Coastal Change.

We **object** to this planning application in the absence of an acceptable Flood Risk Assessment (FRA) / supporting information. Our reasons are given below.

1. Development lies partly within Flood Zone 2 and flood risk may be increased both on and off site
2. Detailed drainage layout and hydraulic calculations have not been provided to show that the risk of flooding can be adequately managed
3. There is no evidence the Sustainable Drainage Systems (SuDS) hierarchy has been followed in full.

Reason

To prevent flooding in accordance with National Planning Policy Framework paragraphs 173 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.

We will review our objection if the issues highlighted are adequately addressed.

The following points should be clarified and further information provided on the following:

1. Flood risk and confirmation of fluvial flood extent.

- The site has been assessed as being located in fluvial Flood Zone 1, however, the site is partly within Flood Zone 2, as shown on the Environment Agency's Flood Map for Planning. We recommend that the FRA is updated with the most recent Environment Agency's mapping.
- The sequential approach needs to be followed, using the following hierarchy:
 - How can the development first avoid the risk of flooding
 - How will it be mitigated (with evidence)
 - How will flood resistance and resilience be employed

The location of development should be checked against all sources of flooding.

The LLFA would recommend that the applicant provides an overlay of the fluvial flood extents and surface water flood extents on the drainage strategy to demonstrate there is no development or drainage elements located in the fluvial or surface water flood risk.

The FRA must demonstrate that the development is safe from flood risk for the lifetime of the development and that it will not increase flood risk elsewhere.

- If there is to be development within Flood Zone 2, floodplain compensation must be provided.
- Finished Floor Levels (FFLs) should be set at least 300mm above all sources of flood risk and maximum design water level, or a minimum of 150mm above proposed ground levels, for flood resilience. This will be beneficial for design storms, exceedance events and the long-term sustainability of the development.
- A plan showing the exceedance flow paths across the site should be provided.

2. Detailed drainage layout and hydraulic calculations.

A detailed drainage layout plan should be fully labelled and show details (e.g. pipe numbers, gradients, diameters, locations, and manhole details) of every element of the proposed drainage system (including all SuDS and pipes). Pipe numbers and nodes should be shown on the drainage layout and correspond with the supporting hydraulic calculations.

Whilst a drainage layout and hydraulic calculations have been provided, we note the following:

- Source control calculations for the attenuation have been submitted. At this stage for a full application, full network calculations should be provided for the entire drainage system and all SuDS components, including the permeable paving, roof discharge, to show the performance of the system in relation to the detailed drainage network.
- Details of all components of the drainage network should be indicated and labelled the same in both the calculations and drainage strategy for clarity.
- The swale should be designed to have 1 in 3 slopes.
- The hydraulic calculations submitted for attenuation in support of the application use outdated parameters. We recommend updated calculations using the following parameters are provided:
 - Calculations should be updated to FEH2013 or FEH2022 to support drainage modelling calculations. For the avoidance of doubt the use of FSR and FEH1999 data has been superseded and therefore, use in rainfall simulations are not accepted. (currently the calculations are informed by the outdated FSR data).
 - Network calculations for all events up to and including the 1% AEP+ 40% climate change event should be provided including an appropriate climate change allowance for the 3.33% AEP design flood event and with CV values of 1.
 - 10% urban creep should be added to all areas that could increase in size or become impermeable for example roofs, patio and driveways.
- Further commentary on the surface water outfall needs to be provided. If the applicant is planning to discharge into an existing watercourse, the following information is required:
 - Confirm the discharge location to the ditches are within the applicant's ownership (they are showing to be outside the redline boundary) or that the applicant has the relevant permissions to discharge. If they are not within the applicant's ownership, then an agreement in principle needs to be provided.
 - Condition of watercourse
 - Capacity of the watercourse. The applicant must demonstrate that the watercourse has sufficient available capacity to cope with the surface water from the site during a storm event.
 - Connectivity of the watercourse – does it have onward connectivity to the main river?
 - Confirmation should also be provided that the swale sits outside Flood Zone 2.

3. SuDS and Drainage Hierarchy

We are highly supportive of the proposed use of SuDS like permeable paving and swales. Evidence that all stages of the SuDS hierarchy have been followed is required. We recommend that further consideration of other forms of above-ground SuDS like rain gardens would provide some additional attenuation volume as well as distribute biodiversity and amenity benefits throughout the site.

Where possible, more SuDS features should be incorporated in the drainage strategy. If they cannot be incorporated, evidence should be provided to show why they are not viable. SuDS features should incorporate the 4 pillars of sustainable drainage which are water quality, water quantity, biodiversity and amenity benefits, as per the National Standards for SuDS (2025).

The FRA states that a site investigation was undertake. Please provide the evidence that the drainage hierarchy has been followed.

4. Additional advice

It should be noted that the proposed development will be “more vulnerable” and not ‘less vulnerable’ as stated in the FRA.

Informative

Source Protection Zone - SPZ1 - only clear roof water can be discharged to groundwater through infiltration (Policy G12). [The Environment Agency's approach to groundwater protection](#)

For further advice on what we expect to be contained within the FRA to support an outline 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.

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 \(hydrosolutions.co.uk\)](#)). Applications should use the most up to date FEH2013 or 2022 data. For the avoidance of doubt the use of FSR and FEH1999 data has been superseded, and therefore, use in rainfall simulations are not accepted.

Yours sincerely

Deborah Craig
Flood & Water Project Officer
Growth & Environment

Annex

The following document(s) have been reviewed, which have been submitted to support the application.

- Flood Risk Summary Statement & Sustainable Surface Water Drainage Strategy, prepared by Stomor Ltd, 08 April 2025, Ref - ST3472/FRSS-2503- Rev 1