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Contact Flood Risk Management Team
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Date 30 August 2024

Dear Peter

RE: 24/01666/SO – Scoping Opinion – Land to the South of Wymondley Substation and South of Sperberry Hill, St Ippolyts

Thank you for your consultation regarding the above application (received 8 August 2024) for a screening opinion relating to a proposed solar farm measuring 35.5 hectares with associated battery storage and ancillary infrastructure.

The LLFA would not wish to make any comments on whether the screening report is, or is not, required for this development, however, we would like to offer some guidance in relation to the flood risk and drainage that may concern the proposed site.

As the Lead Local Flood Authority, we will assess surface water drainage assessments and local sources of flood risk within a Flood Risk Assessment (FRA) for major planning applications. A surface water drainage assessment should be carried out to demonstrate that the proposed development will not create an increased risk of flooding from surface water to the development site and the surrounding area. This should be done in accordance with the National Planning Policy Framework (NPPF) and Planning Policy Guidance (PPG) along with the Hertfordshire LLFA guidance.

Since the site is over 1 hectare in size, a comprehensive Flood Risk Assessment (FRA), in line with Hertfordshire Lead Local Flood Authority guidance and the current NPPF guidance, would be required to be submitted as part of the planning application. We would expect any FRA submitted to support any further planning application to demonstrate the proposed surface water drainage system is designed to include the four pillars of SuDS within the site and the post-development surface water runoff rates and volumes for its lifetime for all rainfall events up to and including the 1 in 100 years plus climate change event. The FRA should also demonstrate that any existing areas of surface water flood risks are managed within the site without increasing flood risk.

The LLFA notes that the proposed development is within Flood Zone 1 for flooding from the rivers or sea. The Environment Agency's Long Term Surface Water Risk map indicates that there is a surface water flow path crossing the south of proposed site (flowing from west to east), with parts of the site at risk in the 0.1% AEP, 1% AEP and 3.33% AEP events as a result. This should be addressed in the FRA and any mitigation proposed should show that the risk of flooding is not increased. We highlight that the most sustainable form of flood risk management is avoidance and if the site passes the sequential test (for all sources of flooding), the sequential approach should be used within the site boundary.

The latest FEH rainfall method and up to date parameters should be applied in all hydraulic modelling calculations at the time of any calculations and assessment.

The site is in the Environment Agency Source Protection Zone I. The protection of the Source Protection Zone is required to be considered in the proposed drainage for the site. Special consideration is needed regarding the regulations for Source Protection Zone I. For reference, see the Environment Agency's approach to groundwater protection document for further information.

As this is a major development, the Sustainable Drainage Strategy should be considered at an early stage of the planning. The drainage system is expected to apply the four pillars of sustainable drainage (SuDS) of Water Quality, Water Quantity, Amenity, and Biodiversity. We would expect above-ground green SuDS techniques such as water reuse solutions, bio-retention areas, wetlands, ponds, basins, and swales, to be used frequently and as a priority within the proposed surface water design.

The LLFA expects the application of the surface water discharge hierarchy to the development of the sustainable drainage solution. We would expect that investigation into infiltration to be undertaken using the methods in accordance with the BRE 365 methods. However, if unfavourable infiltration testing results are obtained, any existing runoff rates / volumes be discharged at a pre-development greenfield scenario.

Where infiltration is demonstrated to be possible, the ground investigations should be carried out and provided within the FRA and drainage strategy. This should include a detailed assessment of the ground conditions, groundwater levels, and permeability of the underlying geology, with all infiltration tests being carried out in accordance with BRE Digest 365. If infiltration is not viable then an alternative surface water runoff drainage destination should be identified. If it is a watercourse, it should be evidenced that it connects to the wider watercourse network prior to any proposal to connect to a surface water sewer.

The assessment should also demonstrate there will be sufficient surface water quality treatment by implementing an appropriate amount of water quality treatment stages through the use of SuDS. An appropriate water quality assessment specific to and for each of the proposed surface water drainage networks is required to demonstrate the suitable water quality management arrangements are in place to prevent pollution from any potential contaminants from surface water runoff.

Details of the required maintenance of any SuDS features and structures and who will be adopting these features for the lifetime of the development must be provided in accordance with NPPF.

Informative:

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 \(hydrosolutions.co.uk\)](https://www.hydrosolutions.co.uk/FEH22-User-Guide)). Both 2013 and 2023 are currently accepted. 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, notify the us (the Lead Local Flood Authority), by email at FRMConsultations@hertfordshire.gov.uk.

Yours sincerely

Ellie

Ellie Miller
SuDS and Watercourses Support Officer
Growth and Environment

Annex

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

- Screening Opinion for the proposed development at Land opposite Wymondley Grid Station, dated September 2023