

Wiltshire Council Planning Consultation Response

26 August 2025

Wiltshire Council Drainage Engineer
Technical Services Drainage Engineer
Wiltshire Council

Officer's Name: Oliver Phippen

Application No: PL/2025/05830
Full planning permission
The construction and operation (including maintenance) of a 49.9MW solar farm to include ground mounted solar photovoltaic (PV) arrays, electrical substations, grid balancing infrastructure, cabling, BESS (49.9MW capacity), communications tower, other associated infrastructure and areas for biodiversity net gain (BNG) enhancement and landscape mitigation
Land at Flaxlands Farm, Royal Wootton Bassett, Swindon, SN4 8DY

Please note the particulars in connection with the above planning application are available to view on the planning website <http://www.wiltshire.gov.uk/planninganddevelopment.htm>

Recommendations:

☐	No Comment
☐	Support
☒	Support subject to conditions (please set out below)
☐	Object (for reasons set out below)
☐	No objections

Matters Considered:

Documents Reviewed:

- Application Form
- Site Location Plan
- Proposed Site Plan (Concept Design)
- Planning Design and Access Statement
- Flood Risk Assessment – Part 1 - Part 2
- Outline Drainage Strategy – Part 1 - Part 4
- Water Framework Directive Screening and Scoping Assessment

The application has been supported with a Site-Specific Flood Risk Assessment (FRA). It should be noted that our comments below are reliant on the accuracy and completeness of the FRA and we do not take any responsibility for incorrect data or interpretation made by the authors.

Discharge rates

The BESS and Substation areas are to be covered in a 300mm gravel layer. A perforated pipe network to assist with drainage is also proposed and is to drain to a detention basin. The applicant proposes to discharge from this basin at

Qbar. This is not in accordance with Wiltshire Council's betterment policy which requires 30% betterment to be provided in all return period events, including the 1 in 1 year return period event. Based on the greenfield rates for the BESS and substation area, the discharge rate should be limited to 1.96l/s.

Interception

The National Standards for SuDS require interception storage to be provided on all sites. This storage must ensure that the first 5mm of rainfall for the majority of rainfall events does not result in runoff from the site. The applicant is proposing a 300mm gravel layer, assumed to have 30% porosity, beneath the BESS and Substation areas, draining to a detention basin. Permeable surfacing is only assumed to provide interception storage where no additional area is drained to the surface. In this case, various units within these areas also drain to the permeable surface and therefore, the applicant must provide calculations that demonstrate that the first 5mm of rainfall can be captured by the gravel layers and/or detention basin and be managed via re-use, infiltration, or evapotranspiration, resulting in no discharge from the site. Further guidance on interception requirements can be found [here](#).

Exceedance flow routes

Runoff from solar panels will create a sheet flow which could erode channels at the toe of the panels. This channelised flow could increase SW flood risk to adjacent developments. Overland exceedance routes should be shown on the drainage plan (for the solar panel fields, BESS and Substation areas) for flows in excess of the 1 in 100 year plus climate change rainfall event.

Ground investigations

The geotechnical desk study indicates that infiltration is unlikely to be feasible on site. However, we still expect the applicant to carry out ground investigations, including infiltration testing, to formally rule this out as a means of discharge. We would also expect the applicant to carry out groundwater monitoring, that accounts for seasonal variation, to determine whether there will be any interaction between the proposed detention basin and groundwater.

Conditions:

The drainage team have the following conditions which need to be addressed by the applicant:

- 1. No development shall take place until a surface water drainage strategy, complying with Wiltshire Council requirements, NPPF, PPG, Non Statutory Technical Standards for SuDS and the National Standards for SuDS has been submitted to and approved in writing by the Local Planning Authority.**

In order to discharge the above drainage condition the following additional information must be provided:

- Evidence that the discharge rate from the detention basin will provide 30% betterment over greenfield rates for all rainfall events, including the 1 in 1 year return period event.
- Calculations demonstrating that interception storage is provided to ensure that the first 5mm of rainfall is managed on site with no discharge to surface waters.
- Cross section and standard detail drawings of any conveyance, infiltration, or attenuation SuDS features.
- Exceedance routing plan for flows in excess of the 1 in 100 year plus climate change (40%) rainfall event to demonstrate no adverse flood risk to the development of elsewhere.
- Evidence that the finished floor levels of any units are above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the SW drainage cover levels.

- 2. No development shall take place until ground investigations, including soakaway testing in accordance with BRE 365, have been carried out on site, and evidence has been provided to demonstrate that the results of these investigations have been considered in the drainage design which has been submitted to and approved by the local planning authority.**

In order to discharge the above drainage condition the following additional information must be provided:

- Evidence that soakage tests have been undertaken in accordance with BRE 365 to discount infiltration as a means of discharge.
- Evidence that the highest groundwater level (taking into account seasonal variations) has been determined, and that any interaction with SuDS features has been considered by the design.

3. **No development hereby permitted shall be occupied until details of the implementation, maintenance and management of the sustainable drainage scheme have been submitted to and approved by the local planning authority. The scheme shall be implemented and thereafter managed and maintained in accordance with the approved details.**

In order to discharge the above drainage condition the following additional information must be provided:

- Details of how the proposed and existing drainage features on the site will be maintained and managed after completion with confirmation from the relevant authority that they will adopt any systems that are being offered for adoption.
- Adequate measures during construction to control pollution to existing watercourses and groundwater.

Informatives:

- i. Wiltshire Council is the land drainage authority under the Land Drainage Act 1991. Land drainage consent is required if a development proposes to discharge flow into an ordinary watercourse or carry out work within 8m of an ordinary watercourse.

An ordinary watercourse is a watercourse that does not form part of a main river. The term watercourse includes all rivers and streams and all ditches, drains, cuts, culverts, dikes, sluices, sewers (other than public sewers within the meaning of the Water Industry Act 1991) and passages, through which water flows. Wiltshire Council's land drainage bylaws can be downloaded [here](#). The land drainage consent application form and guidance notes can be found on our website [here](#).

- ii. It is understood that these sites generally will not have a foul drainage connection; if a foul connection is required, the preference (in line with EA guidance) would be for discharge to an existing foul sewer, following consultation with the sewerage undertaker.

Megan Macpherson (AtkinsRéalis) working on behalf of Wiltshire Council Drainage.