
FOI RESPONSE Proposed Fillongley solar farm 11164768

Subject: Proposed Fillongley solar farm

The Fillongley Flood Group shall be grateful if the LLFA/Flood risk management team would provide the following information upon its response to the planning application submitted to North Warwickshire Borough Council by Enviromena for a solar farm 800 metres south of Park Farm Fillongley, and subsequent appeal; and also comment on issues raised as follows:

- 1. That you have taken into account the potential runoff, from the M6 motorway, which is discharged into the watercourse flowing through and adjacent to the site? Please provide documentary evidence of those calculations.**
- 2. If you have not taken into account the runoff calculations please explain why you have failed to do so?**
- 3. Please provide documentary evidence of the impact of the runoff from the M6 motorway on the site in its present condition and of the calculation for the predicted runoff from the solar panels?**

Questions 1, 2 and 3 are in relation to the same subject therefore the LLFA have provided the following response to address the above questions.

The Flood Risk Management Team as Lead Local Flood Authority are a statutory consultee in the planning process for all 'major' developments. As part of our role as statutory consultee, we are consulted by LPA's to review, comment and provide recommendations based on information submitted by the applicant.

To date, the LLFA have reviewed the below list of documents.

| Document | Revision | Date Reviewed |
|--------------------------|----------|---------------|
| Application Form | N/A | March 2023 |
| Covering Letter Redacted | N/A | March 2023 |
| Planning Statement | Rev B | March 2023 |

| | | |
|---|---------|---------------|
| Site Location Plan | Rev A | March 2023 |
| General Layout | Rev F | March 2023 |
| Landscape Strategy Plan | P05 | March 2023 |
| 11370 Land at Nailcote Farm Landscape and Visual Assessment | Rev B | March 2023 |
| Drainage Strategy | P05 | March 2023 |
| Flood Risk Assessment | P05 | March 2023 |
| Design and Access Statement | Rev 2 | March 2023 |
| Geotechnical and Environmental Report | Issue 1 | March 2023 |
| NFW-BWB-ZZ-XX-RP-CD-0002_LLFA Letter_S2 | P01 | November 2024 |
| Flood Risk Assessment | P07 | May 2025 |
| Drainage Strategy | P07 | May 2025 |
| Conceptual Drainage Strategy | P07 | May 2025 |
| 11370 Land at Nailcote Farm Landscape and Visual Assessment | Rev E | May 2025 |
| Landscape Strategy Plan | P17 | May 2025 |
| 3D Basins and Sections | P01 | May 2024 |
| Edenvale Young Ltd | Rev 1 | July 2024 |

The M6 motorway is located outside of the proposed development sites boundary and no changes are proposed to the motorway itself as such, the final approved flood risk assessment (NFW-BWB-ZZ-XX-RP-YE-0001_FRA, dated 29/04/2024) makes minimal reference to the M6 Motorway as the potential risk posed by this private drainage is considered to be low.

Paragraph 3.39 - Effect of Development on Wider Catchment, highlights that the proposed development will have a negligible displacement of the floodplain or impedance of flows. The raised nature of the solar panels enables flows to pass

beneath them freely, allowing the conveyance of water from upstream to downstream through the site as the currently operates.

4. **Please provide documentary evidence of the authoritative research for panels with a dual aspect and the runoff effect from the panels which has been relied upon by you in drawing conclusions on flood risk and runoff.**
5. **We understand that the Appellant's (Enviromena) flood risk assessment/drainage strategy did not consider or model the runoff from dual aspect panels. Given climate change and the likelihood of exceptionally dry/wet periods, when the land no longer acts as a sponge, the effect on runoff rate and increased flood risk does not appear to have been addressed. Please confirm that this is the case.**

Questions 4 and 5 are in relation to the same subject therefore the LLFA have provided the following response to address the above questions.

No reference has been made to panels with a 'dual aspect' in the planning statement, flood risk assessments or drainage strategy reviewed by the LLFA. The planning statement makes reference to the dual solar and agricultural use, rather than dual aspect solar panels.

The addition of solar panels over a grassy field does not have much of an effect on the volume of runoff, the peak discharge, nor the time to peak (Cook and McCuen, 2013) meaning that they will respond in the same way as an undeveloped greenfield site.

Warwickshire County Council's local flood risk guidance for developers states that it is widely considered that greenfield solar farms have negligible impact regarding surface water runoff, providing appropriate mitigation measures are considered in the Drainage Strategy or Land Management Strategy. Construction activities, soil compaction/erosion and the introduction of impermeable areas have all been factored in and appropriate measures incorporated within the planning application.

Reference: Hydrologic Response of Solar Farms, Lauren M. Cook, S.M.ASCE¹; and Richard H. McCuen, M.ASCE², 2013

6. **Is your response to the Appellant/ Enviromena based upon the November 2023 Drainage Strategy by BWB and in particular part 3 - research by Cook and McCuen, and therefore your response have been based upon rainfall dripping from the entire length of the lowest edge of the panels.**

The individual solar panels have not been modelled, however appropriate mitigation measures have been proposed based on the Warwickshire County Council's local flood risk guidance for developers as well as factoring in research findings set out in the Cook and McCuen, 2013 paper.

- 7. There has been no response from you to the Edenvale Young Associates Report of 4th July 2024. In particular the LLFA and Appellant need to consider and comment on the conclusions of EYA's report numbers 19 to 26 listed below:**
- 19. The swale design as shown will not reduce the runoff rates anticipated. The design should be developed to ensure that water is captured and managed – such as by infiltration with check dams, and that the overflow mechanism is predicted and illustrated. The swales do not manage runoff as presently shown and would simply convey flows to the lowest points and cause unchecked erosion and silt mobilisation.**
- 20. The detention basins as shown will not attenuate flows in the existing watercourses. The inlets need to be designed to receive water from the watercourses and the outlets designed to mobilise storage – they do not, as presently shown. An indication of the benefits delivered by these ponds should be given, to provide monitoring.**
- 21. The scale and duration of grazing should be specified to ensure that the vegetation is effective in managing runoff.**
- 22. Tracks should be formed in permeable granular material, usually expected to have 30% voids.**
- 23. A project programme should be submitted showing the detention basins and swales installed as a first stage to bring benefits during construction. A project programme should be submitted showing the detention basins and swales installed as a first stage to bring benefits during construction.**

- 24. It is customary to ensure that the fields are vegetated prior to trafficking and the commencement of construction, and that trafficking is avoided in wet conditions when the soil characteristics in the long term can be damaged.**
- 25. It is important to FFG and the community of Fillongley that the LLFA ensures that recommended planning conditions are included in the Decision Notice, if approved, and that the conditions are fully considered by the LLFA.**
- 26. On other solar farms the Developer has agreed to have an annual walkaround with the community group to promote good relations and show that the maintenance is being undertaken. We suggest that FFG seeks to agree this with the Operator.”**

The local planning authority at North Warwickshire Borough Council requested the LLFA review the EdenvaleYoung Report (dated July 2024) on the 5th July 2024 to ensure that it did not provide any additional information that may change our recommendation. We maintained our recommendation that conditions be applied should approval be granted based on the LLFA's last formal consultation response which was submitted to the LPA on 30 May 2024.

Section 4 (LLFA recommended Planning Conditions dated 30th May 2024) of the EdenvaleYoung review provided states 'The three recommended conditions which require soakaway testing and detailed design, verification report and maintenance schedule to be approved are welcomed. These should be incorporated in the Decision Notice if approved and discharged appropriately following assessment.'

We fully supported this stance and committed to ensure that the site will be fully assessed and reviewed at the discharge of condition stage should permission be granted.

The planning application was reported to Planning and Development Board on 8th July 2024 with a recommendation for approval by the LPA.

The planning application was refused and the decision notice did not include flood risk or drainage as a reason for refusal.