Laxton and Moorhouse Solar Concerns flooding concerns to the Great North Road Solar Park photovoltaic system post Open Hearing 3

Summary

Laxton and Moorhouse Solar Concerns (L&MSC) wish to highlight the continuing flooding concerns with further evidence and rebuttal following heavy rainfall on27th February 2026 and further submissions by Elements Green on the matter.

Laxton and Moorhouse are both susceptible to flooding, highlighted in EN010162-000499 [1] and further discussed in EN010162-000587 [2].

The Flood Risk Assessment remains weak with no bounds of applicability (though previous documents have explicitly exempted themselves from effects on anything other than the solar plant). No Hazard Risk Matrix or Hazard Risk Index are provided to support contentions

Analysis that flooding is 'Negligible' in Moorhouse is not born out by recent evidence and should be reassessed and modelled to a level of credibility, rather than relying on a Desktop Study.

Contentions that grassland and soakaways are suitable for flood alleviation are no longer viable for this project, both through their own empirical evidence and detailed analysis of previously provided evidence.

The bizarre decision to place riparian planting where planned solar panelling has been removed along the beck is both acknowledgement of the flood risk in this area and evidence that no flood modelling for the village has been carried out. It should be acknowledged that this will exacerbate rather than alleviate flooding in the village.

Concerns regarding the increased flood risk to Moorhouse by this project, raised in EN010162-000499, EN010162-000500 and EN010162-000587 have not been addressed or mitigated in this latest assessment. The contention that Moorhouse will suffer increased flooding due to this project remains valid.

Introduction

As previously mentioned (EN010162-000499), the village of Moorhouse lies in a shallow hollow, through which runs the Moorhouse Beck. Planned placement of riparian planting along the beck and covering each side of its surrounding fields with solar panelling will undoubtedly raise the potential for flooding of village properties, something for which there is already significant threat. This has been implicitly acknowledged by Elements Green who have removed panelling immediately adjacent to the beck following their Preliminary Risk Assessment on flood risk to their own equipment. No assessment has been made on the flood effects to properties in the area.

The recent weekend of 27/02/26 has highlighted the flooding potential that would be exacerbated by solar panelling placement in this area. Some 25-30mm rain fell in Moorhouse on the evening of 27th resulting in high water in the beck, exampled in the photographs in Appendix A, taken at at 08:00 on 28th. It should be noted that water levels had dropped by at least 1m by midday on 28th after no further rain had fallen. To date, no analysis of flooding to the village of Moorhouse that would arise from the GNR Solar project has been evidenced.

Environmental Statement Volume 4 – Technical Appendices, Technical Appendix A9.1 – Flood Risk Assessment

As previously described, Moorhouse is uniquely situated within the proposed solar array in that it lies on the main drainage into the Trent for the array area. Positioned in a shallow valley, Moorhouse suffers from flooding to its properties, roads and hedgerows from Moorhouse Beck, highlighted in the Parish Flood report of 2023 [3].

Following these observations, provided both directly to Elements Green [4] and via the Inspectorate [1], Elements Green have submitted a further document on the Flood Risk, specifically: Environmental Statement Volume 4 – Technical Appendices, Technical Appendix A9.1 – Flood Risk Assessment [5].

The following points are raised regarding this document:

The Flood Risk Assessment (FRA) methodology, as previously observed (EN010162-000587), remains weak. Its description at A9.1.1.3 makes no reference to the boundaries within which the assessment remains valid, though the previous published FRA documents explicitly exempt themselves from effects on anything other than the solar plant itself, and acknowledge that even this has been achieved only from desktop study.

Three risk categories are identified (Negligible, Low, Moderate to High) but no indication is given as to how these are derived or justified. No Hazard Risk Matrix or Hazard Risk Index are provided to support contentions or arguments that could help define these categories, their confidence values and credibility. No measurement metrics or variance are provided. The concept of As Low As Reasonably Practicable (ALARP) is not referenced, though the concept, even if unknown, must have guided the arguments and assurances by which a 'high, medium, low' assessment could be formed [6]. The presumption that this is aligned with other solar farm assessments is a significant point for concern. It would not be tenable to copy something without understanding it, its applicability and value.

The assertion at A9.1.1.4 that Guidance and Legislation is met represents weak assurance. Such satisfaction would be an accepted mandatory baseline and the lack of credible and coherent argument beyond this is a significant failing. Where consequences should have reasonably been foreseen and have not been appropriately mitigated, a company would be culpable, even if pertinent regulations had been met. However, little evidence exists of any attempt to produce an holistic and all-encompassing safety case for the project.

Although the flooding issues for Moorhouse village have been raised directly with Elements Green, both through report and at the Village Meeting, as well as in documents submitted to the Inspectorate, it is disappointing that the risk to the village and outlying properties has not been considered even when assessing the risk of the beck at A9.1.2.2.2. The contention that wracking 'suggesting a capacity to convey substantial flows without becoming bankful' is clearly wrong, as exampled in the Parish flood report of 2023 [7] and the 2026 photographs in Appendix A.

Equally, the contention also in this paragraph that 'As such, the risk of flooding from Moorhouse Beck is Negligible' is demonstrably wrong from the same evidence above and from Elements Green's own actions of removing solar panelling from adjacent to the beck.

The report states 'Plate A9.1.12 shows a cross section through the floodplain suggesting that should Moorhouse Beck overtop its banks then floodwater will spread over a wide flat area to shallow depths, and not interact with electrically sensitive infrastructure in Work Area 1, Solar PV.' This sentence appears to acknowledge the widespread effects that any flooding causes to the village area, but this has not stimulated any investigation or modelling of the effects that the panel placement in this area could play in flood stimulation and aggravation.

This report includes third party testing in the form of Infiltration testing at 4 sites. Although none of these sites are close to Moorhouse, they finish with Discussion similar to: 'The soils encountered beneath the topsoil were found to be typical of the weathered fraction of the underlying Mercia Mudstone Group. The strata conditions and subsequent drainage characteristics appear to be comparable across the site. In this instance, the infiltration testing has revealed that the soils have practically impermeable drainage characteristics. Therefore, soakaways cannot be recommended at this site and an alternative form of drainage should be adopted. '

Each draws the same conclusion that soakaways are not recommended. Each of the areas was described as 'Nominal thickness of topsoil overlaying clay representative' which also describes the strata in the Moorhouse area. Rain falling on this land will soak through the light topsoil, but sit on the clay substrata. Folds in this substrata will form under and overground streams and result in pooling. It is therefore of no surprise that in this shallow valley, the village was known as 'Moorhouse on the bog', until the drainage beck was created in the 1850's, allowing the fertile land to be used for agriculture.

Previous contentions that run-off can be alleviated through soakaways or grasses appear to have been omitted from the continuing arguments (though photographs at pages 49-51 remain), presumably given the evidence highlighted above that soakaways are inappropriate. Equally the original reliance on Milazzo et al [8] to counter the arguments by Baiamonte [9] regarding increased run-off from solar panels appear to have been rescinded, given that Milazzo's Conclusions specifically acknowledge that 'these general indicators are limited in scope' and that 'At present, their extent and regional impact is mostly unknown' when referring to claims that grasslands reduce flood impact.

It is also worth reiterating the point made in EN010162-000493 that it takes approximately 400,000ltr of water to grow an acre of wheat, equating to approximately 75,000,000ltr yearly to grow the wheat currently immediately around the outflowing beck. With panels installed, this water would have to outflow through the beck. It may be argued that the crop is not growing during the most likely times of flooding, but as described above, the local land is spongiform. It drains throughout the growing period, recharging in the rainy months and providing a resilience to the flood risk. Solar panels will not allow cropping or even natural evaporation under their shade and thus the spongiform land will loose its ability to moderate rainwater flow into the beck.

As such, the overall concerns regarding increased flood risk to Moorhouse, raised in EN010162-000499, EN010162-000500 and EN010162-000587 have not been addressed or mitigated, in this, or previous reports, and so the contention that Moorhouse will suffer increased flood risk due to this project remains valid.

References

[1] L. a. M. S. Concerns, "Laxton and Moorhouse Solar Concerns local objections to the Great North R," 12 12 2025. [Online]. Available: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010162-000499-NSIP%20objection%20letter%203.docx.pdf. [Accessed 2 2 2026].

[2] R. Allarton, "Richard Allarton objections to the Great North Road Solar Park," 12 12 2025. [Online]. Available: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010162-000587-NSIP%20individual%20objection%20letter.docx.pdf. [Accessed 2 2 2026].

[3] Laxton and Moorhouse Parish Council, "Drainage and Flooding October 2023," 2024.

[4] L. a. M. S. Concerns, "Laxton and Moorhouse Solar Concerns Objection to the Great North Road Solar Array," Submitted to Elements Green during consultation phase, 2025.

[5] "Great North Road Solar and Biodiversity Park," 19 2 2026. [Online]. Available: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010162-000991-GNR_6.4.9.1C_ES%20TA_A9.1_Flood%20Risk%20Assessment%20with%20Appendix_Rev%204_(Clean)%20v2.pdf. [Accessed 2 3 2026].

[6] HSE, "Guidance on ALARP Decisions in COMAH," [Online]. Available: https://www.hse.gov.uk/foi/internalops/hid_circs/permissioning/spc_perm_37/#ALARP-Demonstration-Requirements. [Accessed 2 3 2026].

[7] L. a. M. P. Council, "Drainage and Flooding October 2023," 2024.

[8] F. Milazzo. et al, “The role of grassland for erosion and flood mitigation in Europe: A meta-analysis,” *Agriculture, Ecosystems & Environment,* vol. 348, 2023.

[9] L. G. S. P. Giorgio Baiamonte, “Impact of solar panels on runoff generation process,” *Hydrological Processes,* vol. December, 2023.

Appendix A

Flooding pictures Moorhouse, 28th February 2026.

Beck adjacent to The Holdings driveway

Beck at Ossington Rd bridge

Beck along Sandy Lane off Ossington Rd

Fields along Sandy Lane adjacent to the beck