

I represent Laxton and Moorhouse Solar Concerns, a group of individuals from our locale that is affected by part of the proposed solar array.

GNR Solar Park size is significant, causing different and common problems across a wide area and 20 parishes, and there is much I could discuss and argue, but have assumed that you will want me to focus on the issues that are particular to L&M.

I'd like to draw your attention to flooding problems in the area, but will also use this to example a higher level and more fundamental problem with the proposal.

Laxton and Moorhouse suffer from flooding, as evidenced in my submissions to you and from the Parish Council's 2023 flood report.

Incidentally, in medieval times Moorhouse was known as 'Moorhouse on the Bog', but the digging of several drainage becks in the 1800's largely alleviated this problem, allowing the area to be developed for agriculture.

The area and housing within the villages remain sensitive to this problem.

This was raised with Elements Green, both in written submission and at public meetings at both Laxton and later, Moorhouse.

The issues lie primarily with flow down the main beck; flooding is usually short lived once the water escapes to the Trent. Unfortunately, the fields adjacent to the beck downstream of the village are all earmarked for solar panel arrays. (Fields N1 – N7).

Empirical research (Hydrological Processes – A first quartile publication in SJR) has shown that run-off can be 11 times greater than bare soil. This work was carried out in a sub-tropical climate (Sicily) more equivalent to our own temperate climate than the research used by Elements Green that derives from arid US area studies. Meta analysis on this topic acknowledges this (Environmental Research Infrastructure and Sustainability).

Thus the concern is that at periods of heavy rain, the flow of water from Moorhouse area will be directly impeded by the increased rapidity of flow into the outflow from the solar panel fields which will rapidly overcome the beck's downstream capacity, backing up into the village.

This was raised with Elements Green, who disagreed with the contentions, but in their final submission, had reduced the solar panelling adjacent to the outflowing beck and replaced it with riparian land.

A cynic might suggest that EG have removed their panels from the likely flood areas, as they have done around Muskham, but the replacement with riparian planting will again impede waterflow and exacerbate the flooding problem for the villages.

Equally, it should be recognised that it takes approximately 400,000ltr of water to grow an acre of wheat, equating to approximately 75m ltr of water to grow the wheat currently immediately around the outflow beck.

This 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 the local land is spongiform, hence the term 'Moorhouse on the bog' (and as witnessed in this last hot summer where local surface shape has shrunk and is now beginning to refill). 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 lose its ability to moderate rain water flow into the beck.

Arguments can ebb and flow, with our homes being the jeopardy for who is to be proved right in practice. But what is clear is there has been no risk based approach to this project. Concerns can have been aired, mitigations put in place, but there is no overarching safety case which compellingly assures that all hazards have been considered and credibly reduced to as low as reasonably practicable. The flooding issues around Moorhouse and Laxton are but a single example of the failure to fully consider and mitigate the risk implications of this project.