Dear Aaron and the Development Planning Team,

Proposal: Installation of a solar park to export up to 25 MW (AC) electricity, comprising up to 40,000no. photovoltaic panels, up to 7no. inverters & transformers, 2no. electrical buildings, 1no. onsite control building, boundary fencing and gates, security cameras, and associated infrastructure and engineering operations 25/00652/FUL

Location: Land East of Billing Brook and North and South of Peterborough Road Haddon

Subject: Objection - Inadequacy of Flood Risk Assessment and Surface Water Mitigation – Haddon Road Solar Park

I wish to strongly object to the adequacy and reliability of the Flood Risk Assessment (FRA) submitted for this proposal (ER App F.-Flood Risk Assessment-15/04/2025). The FRA fails to comply with best practice and current planning policy for the following key reasons:

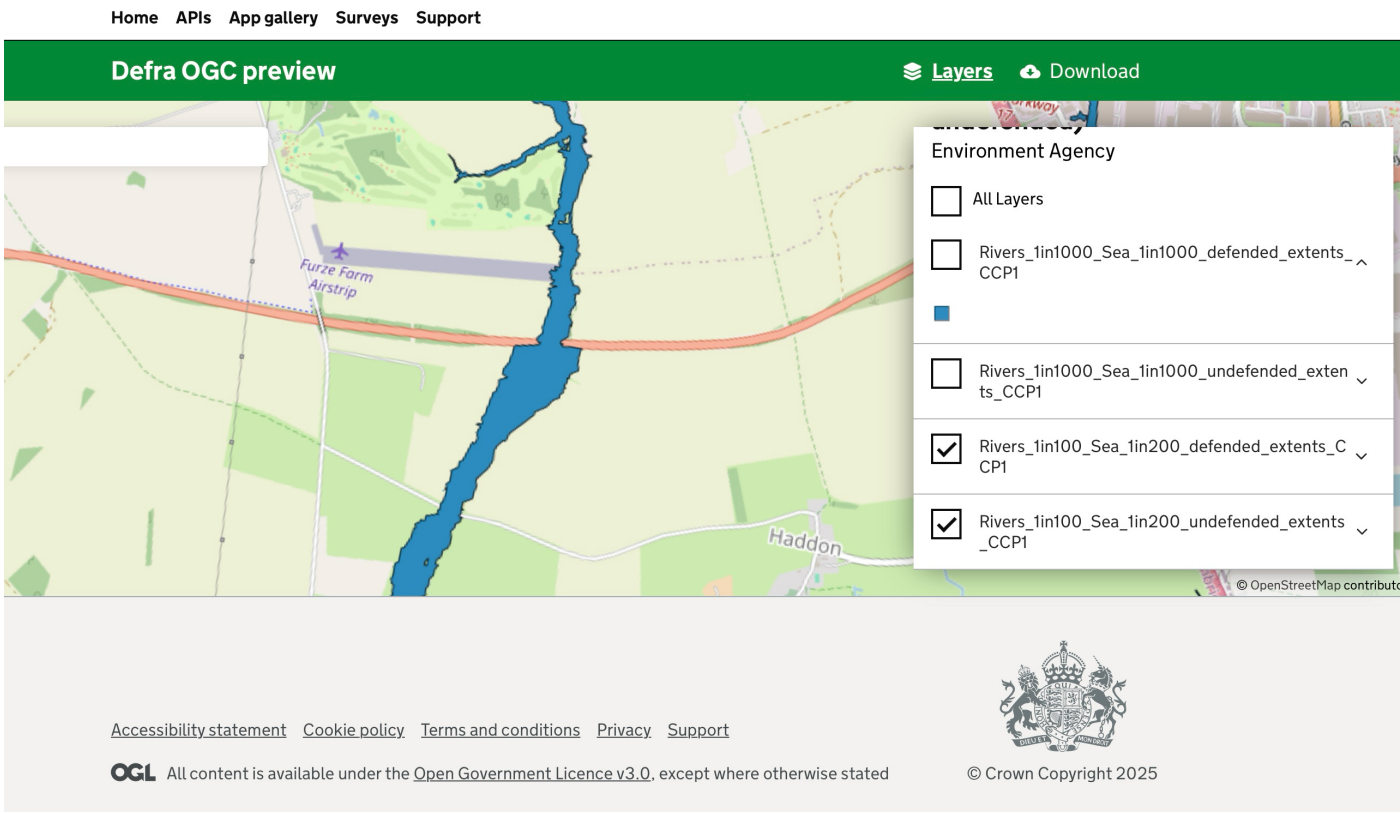
1. Material Omission of PV Panel Runoff

The FRA's impermeable area calculation excludes the ~100,000 m² of photovoltaic (PV) panels proposed, counting only panel supports and a handful of small buildings. This is a fundamental flaw.
PV panels shed rainfall rapidly to concentrated drip lines, producing short-duration, high-intensity overland flow, particularly on sloping sites with impeded infiltration such as the Jurassic clay and glacial till of the Northern Wolds. The omission from 40,000 PV panels leads to gross under-estimation of post-development runoff rates and required storage.

2. Use of Outdated Flood Risk Evidence

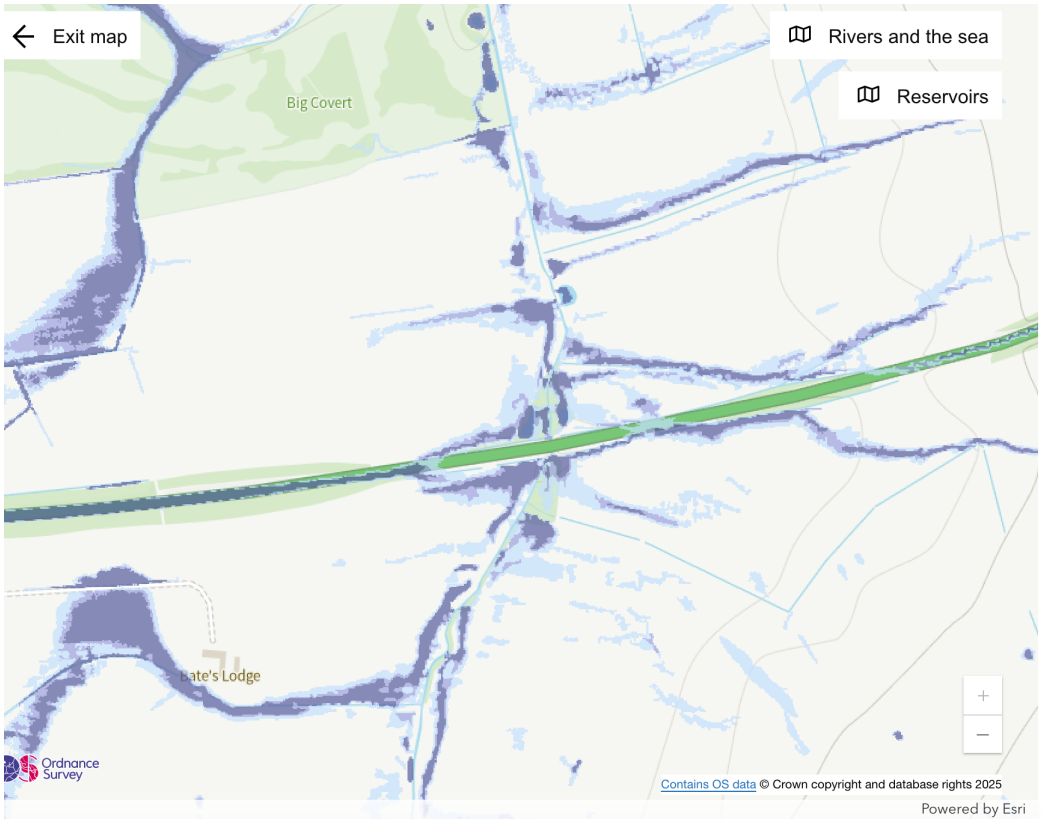
The FRA relies on 2017 SFRA data and older Environment Agency flood maps. Updated DEFRA flood maps from 14 August 2025 below show a significant increase in Flood Zone 2 and 3 extents along Billing Brook, abutting both sides of the A605. This new data is directly relevant yet ignored.

The extract below from Defra OGC preview (Defra Open Geospatial Consortium, accessible through the Data Services Platform) on 14 August 2025 shows that flooding today is more extensive than reported by the Applicant and expands into the proposed site and is particularly significant abutting both sides of the A605. With 100,000m2 of impermeable PV panels angled downhill and falling 25m (83ft) in height, the potential for vastly accelerated flash flooding and the expansion of flood zones 2 and 3 around Billing Brook is bound to occur.



The UK Government's long term flood risk predictions at the site location between 2040 and 2060 (which is available but was not applied by the developer), shows expanded flood zones 2 and 3 into the proposed site and a high chance of flooding each year >3.3% before the introduction of 100,000m2 of impermeable glass PV panels. Clearly introducing the PV panels will greatly increase run-off and expand the flood zone areas and increase flooding into neighbouring farms. Given the 40-year term of the application and the NPPF requirement (para. 173), the developer failed to properly assess flooding today and in future given frequent objections and photographic evidence submitted by local residents during 22/00668/FUL and 25/00652/FUL of known risks of flooding at the proposed site and the neighbouring farms.

Below is an extract on 14th August 2025 from Technical Map-Check your long-term flood risk-GOV.UK.



3. Failure to Reflect Actual Site Flood Behaviour

In the past years, Billing Brook has overtopped repeatedly, flooding the A605 and adjacent agricultural land. Photographic evidence below confirms that the local flood hazard is more severe than stated in the FRA, which claims “no extra risk of flooding to adjacent areas”. The first photo was submitted in objections to 22/00668/FUL and was from winter 2023. The second photo is typical of annual overtopping annually and again was submitted in objections to 22/00668/FUL and 25/00652/FUL.

4. Inadequate Climate Change and Hydrological Modelling

Although a 40% climate change allowance is mentioned, no robust modelling of catchment response under extreme rainfall is presented. The site's 25m fall from west to east greatly accelerates runoff into Billing Brook, reducing time to peak and increasing flood risk downstream - effects not quantified.

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5. Unsuitable and Undersized SuDS

The proposed swales are dimensioned for an increase of just ~362 m² impermeable area (equivalent to a tennis court in area), whereas actual contributing runoff area (including PV panels) is orders of magnitude larger. Heavy clay soils with impeded drainage are unsuitable for infiltration-only measures without additional attenuation and controlled discharge. The proposed system is significantly under-designed and risks failure in prolonged wet weather.

Technical Annex – Quantitative Comparison of Runoff Volumes

Impermeable Area Used in FRA
The Applicant's FRA counts only **362.36 m²** of impermeable surfaces (panel supports, cabins, and buildings).

Actual PV Panel Area
Each panel: 2.210 m × 1.130 m = **2.4973 m²**
40,000 panels → **~99,892 m²** impermeable PV surface area.

Runoff Volume – Example 50 mm Storm

Scenario	Impermeable Area (m²)	Runoff Volume @ 50 mm Rainfall (m³)
Developer's FRA	362.36	18.12
Actual (PV panels included)	99,892	4,994.60

Underestimation Factor:

4,994.60/18.12 = 276

Implication:
The FRA's drainage design is based on a runoff volume nearly **three orders of magnitude smaller** than the true post-development potential. This means the proposed swales are undersized by a factor of over 250, making them incapable of handling the actual storm runoff from the site.

Conclusion
The FRA is incomplete, based on outdated data, and underestimates the hydrological impact of the scheme. It therefore fails the NPPF requirement (para. 173) that development must be safe for its lifetime *without increasing flood risk elsewhere*.
Given the site's elevated position, steep slope, and direct drainage to a watercourse with a history of overtopping, the development without a substantially revised FRA and robust attenuation measures presents an unacceptable risk of increased flooding to the A605 and neighbouring land.

This objection on the adequacy and reliability of the Applicant's assessment for another key planning requirement for Flood Risk reveals a concerning pattern of under-statement and under-representation to facilitate development which have also been revealed by the Independent LVIA for Landscape and Visual Impacts (challenging the developer's LVIA assessments) and objections from Sibson Flying School and local residents on Aircraft Safety.

I support the Planning Officer defending the appeal and respectfully request that the Planning Officer and the DMC give this FRA deficiency substantial weight in defending the appeal alongside aircraft safety and landscape harm.

Eur Ing Brett Walsh BEng CEng MICE MBA, Local Resident and Elton Parish Councillor
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