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# FENWICK SOLAR FARM

**Preliminary Environmental Information Report**  
**Volume III Appendix 1-2: EIA Scoping Opinion**

March 2024

Prepared for:  
Fenwick Solar Project Limited

Prepared by:  
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# **SCOPING OPINION:**

## **Proposed Fenwick Solar Farm**

**Case Reference: EN010152**

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Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

**11 July 2023**



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# 1. INTRODUCTION

- 1.0.1 On 01 June 2023, the Planning Inspectorate (the Inspectorate) received an application for a Scoping Opinion from Fenwick Solar Project Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Fenwick Solar Farm (the Proposed Development). The Applicant notified the Secretary of State (SoS) under Regulation 8(1)(b) of those regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development and by virtue of Regulation 6(2)(a), the Proposed Development is 'EIA development'.
- 1.0.2 The Applicant provided the necessary information to inform a request under EIA Regulation 10(3) in the form of a Scoping Report, available from:  
<http://infrastructure.planninginspectorate.gov.uk/document/EN010152-000010>
- 1.0.3 This document is the Scoping Opinion (the Opinion) adopted by the Inspectorate on behalf of the SoS. This Opinion is made on the basis of the information provided in the Scoping Report, reflecting the Proposed Development as currently described by the Applicant. This Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.0.4 The Inspectorate has set out in the following sections of this Opinion where it has / has not agreed to scope out certain aspects / matters on the basis of the information provided as part of the Scoping Report. The Inspectorate is content that the receipt of this Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects / matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects / matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 1.0.5 Before adopting this Opinion, the Inspectorate has consulted the 'consultation bodies' listed in Appendix 1 in accordance with EIA Regulation 10(6). A list of those consultation bodies who replied within the statutory timeframe (along with copies of their comments) is provided in Appendix 2. These comments have been taken into account in the preparation of this Opinion.
- 1.0.6 The Inspectorate has published a series of advice notes on the National Infrastructure Planning website, including [Advice Note 7: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping \(AN7\)](#). AN7 and its annexes provide guidance on EIA processes during the pre-application stages and advice to support applicants in the preparation of their ES.
- 1.0.7 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from:  
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

- 1.0.8 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (e.g. on formal submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.

## 2. OVERARCHING COMMENTS

### 2.1 Description of the Proposed Development

(Scoping Report Sections 1 to 4)

ID	Ref	Description	Inspectorate's comments
2.1.1	Paragraph 1.1.6	Site boundary	<p>The Scoping Report states that the site boundary is likely to be refined as the design of the Proposed Development progresses. The ES should describe any changes to the final boundary for the Development Consent Order (DCO), including an explanation of the reasons for the changes and should ensure that the scope of any assessments reflects the maximum extent of the Proposed Development.</p>
2.1.2	Paragraph 2.3.2	Project description and flexibility	<p>The description of the Proposed Development within the Scoping Report is relatively high level (at this stage) which does affect the level of detail possible in the Inspectorate's comments. The locations of principal development components within the application site have not been defined. In particular, the anticipated height and location(s) of the Battery Energy Storage System(s) (BESS(s)), which is likely to be a prominent feature of the Proposed Development, has not been provided.</p> <p>The Inspectorate notes the Applicant's intention to apply a 'Rochdale Envelope' approach to maintain flexibility within the design of the Proposed Development, namely relating to the photovoltaic (PV) panel type and configuration, arrangement of supporting infrastructure and the inclusion and arrangement of the BESS(s). Paragraph 2.3.41 of the Scoping Report explains that there are currently four potential options under consideration for the energy export connection to the National Grid, although these options are to</p>

ID	Ref	Description	Inspectorate's comments
			<p>be refined prior to the production of the Preliminary Environmental Information Report (PEIR) and DCO submission.</p> <p>The Inspectorate expects that at the point an application is made, the description of the Proposed Development will be sufficiently detailed to include the design, size, capacity, technology, and locations of the different elements of the Proposed Development, and a justification for these. This should include the footprint and heights of the structures (relevant to existing ground levels), as well as land-use requirements for all elements and phases of the development. The description should be supported (as necessary) by figures, cross-sections, and drawings which should be clearly and appropriately referenced. Where flexibility is sought, the ES should clearly set out the maximum design parameters that would apply for each option assessed and how these have been used to inform an adequate assessment in the ES.</p>
2.1.3	Paragraphs 2.3.33 to 2.3.36	BESS(s)	Paragraph 2.3.36 indicates that the BESS(s) may need auxiliary power for cooling. The ES should explain how this auxiliary power is to be provided and describe any infrastructure (including the maximum dimensions) that would be required.
2.1.4	Paragraph 2.3.41	Grid connection options	The third grid connection option indicates that “ <i>two underground 132 kV circuits</i> ” would be required. If this option is taken forward, the ES should explain if the two circuits are to be located within a single trench / cable run or are required to be in separate areas. On the basis that these works could have the potential to double the construction works required, the ES should provide justification for the option chosen.
2.1.5	Paragraph 2.3.42	Watercourse, railway and road crossings	Watercourses, railways and roads are proposed to be crossed during construction of the Proposed Development. The ES should identify which watercourses, railways and roads will be crossed and at which



ID	Ref	Description	Inspectorate's comments
			<p>locations, with reference to an accompanying figure(s). The ES should describe the types of crossings that are required, their scale and dimensions and the nature of any associated construction works.</p> <p>Sufficient details should be provided to inform a robust assessment of likely significant effects on relevant aspects / matters including watercourse hydraulics and ecological receptors. Effort should be made to agree the approach to watercourse, railway and road crossings with the relevant consultation bodies.</p>
2.1.6	Paragraph 2.3.43	Operations and maintenance hub	<p>The ES should provide details relating to the operation and maintenance hub including location and dimensions of buildings and storage areas. Any potential adverse impacts of the construction, operation and decommissioning of the operations and maintenance hub should also be assessed in the ES where significant effects are likely to occur.</p>
2.1.7	Paragraph 2.4.2	Construction and operation start dates	<p>The Scoping Report states that construction could start in 2026 at the earliest and is estimated to last approximately 18 to 24 months. However, no information is provided as to whether this would be delayed in the event that the grid connection date remains as 2032. If uncertainty remains on the connection date at the point of application, the ES must clearly explain the parameters used in the assessment, including the likely construction and connection dates.</p> <p>In the event that either construction or operation is expected to be delayed as a result of the 2032 connection date, the ES must explain how the future baseline has been defined for each aspect and how impacts have been predicted, given the uncertainty around timing.</p>
2.1.8	Paragraph 2.4.2	Construction timeline	<p>As detailed in ID 2.1.7 above, the earliest construction could start is in 2026 and is estimated to last approximately 18 to 24 months. The ES should explain how the construction timeline would enable</p>

ID	Ref	Description	Inspectorate's comments
			<p>connection in late 2027, should the request to bring forward the date of connection be approved.</p> <p>The ES should also provide an anticipated timeframe for each stage of the construction period (enabling works, construction and commissioning) as this will help correspond to the characteristics of the likely impacts and effects.</p>
2.1.9	Paragraph 2.4.3	Construction activities	<p>An overview of indicative construction activities is provided in paragraph 2.4.3 of the Scoping Report. This information should be set out in the ES including key construction milestones, the duration and location of the required construction activities, associated plant and machinery, and the proposed construction hours.</p>
2.1.10	Paragraph 2.4.5	Construction compounds	<p>The Scoping Report states that the Proposed Development would require temporary construction compounds within the site, however, the exact location is yet to be determined. To ensure a robust assessment of likely significant effects, the ES should provide details regarding the number, location and dimensions of construction compounds.</p>
2.1.11	Paragraph 2.4.9	Abnormal loads	<p>The Scoping Report identifies potential for road upgrades, widening and new road construction to accommodate abnormal loads or to ensure visibility splays at site access / egress points if required. Paragraph 2.4.9 states that the need for these works would be determined as the design develops.</p> <p>The Inspectorate considers that the impacts, which may result from such works, with appropriate mitigation measures, should be assessed within relevant aspect chapters of the ES where significant effects are likely to occur. The ES should also set out the predicted number of abnormal loads and expected routeing, and whether road upgrades / widening require an extension to the red line boundary.</p>

ID	Ref	Description	Inspectorate's comments
2.1.12	Paragraph 2.4.15	Biodiversity mitigation and enhancement	<p>The Scoping Report explains that a Framework Biodiversity and Landscape Management Plan will be submitted with the DCO application. The Framework Biodiversity and Landscape Management Plan should clearly differentiate between measures proposed to mitigate significant effects of the Proposed Development and measures proposed to support biodiversity net gain (BNG).</p>
2.1.13	Section 2.5	Operational and maintenance activities	<p>The proposals for ongoing management and maintenance of the land around and under the solar PV modules should be confirmed in the ES, including any animal grazing. Any potential adverse impacts of maintenance activities should also be assessed in the ES where significant effects are likely to occur.</p> <p>The Proposed Development description should also provide information as to why one to three permanent staff are required, as personnel required for deliveries and servicing, which are noted to be the main operational requirements, are listed as visitors.</p>
2.1.14	Section 2.6	Operational lifespan / decommissioning	<p>The Inspectorate notes that the operational life of the Proposed Development is assumed to be 40 years for the purposes of the Scoping Report and subsequent ES. However, the Scoping Report states there is potential for the operational lifespan to be longer depending on the condition of the equipment and length of the lease agreement. The ES should explain how the uncertainty around the design life of the Proposed Development has been accounted for in reaching the assessment conclusions. Any potential impacts that are likely to result in significant effects arising from the Proposed Development should it operate beyond the 40-year timeframe should be assessed in the relevant ES aspect chapters.</p> <p>It is noted that paragraph 2.6.4 states that all cabling will be removed, however paragraph 2.6.5 states that it is typical to leave cables in situ. The ES should be consistent in its description and</p>

ID	Ref	Description	Inspectorate's comments
			subsequent assessment of decommissioning activities where they are known.
2.1.15	N/A	Existing infrastructure	<p>The Applicant's attention is drawn to the scoping consultation response from National Grid Electricity Transmission Plc, which identifies a number of existing infrastructure assets within or in proximity to the application site, including overhead lines, underground cables and substation.</p> <p>The assessment in the ES should take into account the location of existing infrastructure and identify any interactions between it and the Proposed Development. Any significant effects that are likely to occur should be assessed.</p>

## 2.2 EIA Methodology and Scope of Assessment

(Scoping Report Section 5)

ID	Ref	Applicant's proposed aspects to scope out	Inspectorate's comments
2.2.1	Section 5.7	Standalone ES aspect chapters for air quality, glint and glare, ground conditions, major accidents and disasters, telecommunications and utilities, electromagnetic fields and materials and waste.	<p>The Applicant proposes to include a chapter in the ES that provides a summary of environmental aspects which have been considered in the EIA Scoping Report, but for which standalone chapters are not required as the absence of likely significant effects (LSE) is expected to be demonstrated without the need for detailed information.</p> <p>The Inspectorate is content that the Applicant takes a proportionate approach to assessment in the ES and agrees that standalone chapters are not required, provided these aspects are assessed within ES Chapter 14: Other Environmental Topics. However, the Applicant should ensure that assessments provided in the 'Other Environmental Topics' chapter are robust and follow the methodology set out in Section 5 of the Scoping Report. The ES should also provide sufficient detail on the baseline conditions and methodology used, and potential impacts and mitigation, where significant effects are likely to occur.</p>
2.2.2	Paragraph 5.8.3	Standalone human health assessment	<p>On the basis that the technical chapters of the ES will consider the potential effects of human health within their own assessments, the Inspectorate is in agreement that a standalone assessment on human health is not required. The ES should clearly signpost where impacts relating to human health have been considered in the relevant technical chapters.</p>

ID	Ref	Description	Inspectorate's comments
2.2.3	Paragraph 5.6.10	Cumulative effects with other developments	A Zone of Influence (ZOI) of 5km is considered in the Scoping Report for other developments which have the potential to result in cumulative effects. The ZOI should be determined based on the potential for significant effects on receptors to occur and may differ across the environmental aspects. The ES should provide a clear justification for the extent of each ZOI and how it captures the effects from the Proposed Development. Wherever possible it should be agreed with the relevant statutory consultation bodies as part of discussions on the assessment methodologies. Evidence of agreement on these points should be provided in the ES.
2.2.4	N/A	Monitoring	The ES should identify and describe any proposed monitoring of adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.
2.2.5	N/A	Scoping table	The Inspectorate recommends the use of a table in the ES to set out key changes in parameters / options of the Proposed Development presented in the Scoping Report to those presented in the ES. It is also recommended that a table demonstrating how the matters raised in the Scoping Opinion have been addressed in the ES and / or associated documents is provided.
2.2.6	N/A	Effects which are assessed in other chapters	The Scoping Report states in several chapters that assessments relevant to a chapter may be undertaken in others (for example in-combination effects on heritage or ecological receptors due to noise and vibration are considered in Chapter 7: Cultural Heritage and Chapter 8: Ecology, rather than Chapter 11: Noise and vibration). The ES should clearly signpost between chapters to where the relevant assessments are presented.
2.2.7	N/A	Study areas	The Scoping Report typically presents different study areas within the same chapter for the three sections of the solar PV site, grid

ID	Ref	Description	Inspectorate's comments
			<p>connection corridor and Thorpe Marsh substation, and within some chapters proposes a different study area for construction and operation. The ES should present the relevant study areas for each aspect chapter on appropriate figures.</p>
2.2.8	Appendix A	Transboundary	<p>The Inspectorate on behalf of the SoS has considered the Proposed Development and concludes that the Proposed Development is unlikely to have a significant effect either alone or cumulatively on the environment in a European Economic Area State. In reaching this conclusion the Inspectorate has identified and considered the Proposed Development's likely impacts including consideration of potential pathways and the extent, magnitude, probability, duration, frequency and reversibility of the impacts.</p> <p>The Inspectorate considers that the likelihood of transboundary effects resulting from the Proposed Development is so low that it does not warrant the issue of a detailed transboundary screening. However, this position will remain under review and will have regard to any new or materially different information coming to light which may alter that decision.</p> <p>Note: The SoS' duty under Regulation 32 of the 2017 EIA Regulations continues throughout the application process.</p> <p>The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the Annex to its Advice Note Twelve, available on our website at:</p> <p><a href="http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/">http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/</a></p>

### 3. ENVIRONMENTAL ASPECT COMMENTS

#### 3.1 Climate Change

(Scoping Report Section 6)

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
3.1.1	Table 6-2	In-combination climate change impact assessment – sea level rise	The Applicant explains that the Proposed Development is located inland, more than 40km from the sea, in an area that is not susceptible to sea level rise. The Inspectorate agrees that significant effects are not likely to occur and an assessment of sea level rise in the in-combination climate change impact assessment can be scoped out of further assessment in the ES.
3.1.2	Table 6-3	Climate change resilience review – sea level rise	The Inspectorate is content to scope this matter out of further assessment in the climate change resilience review. This is on the basis that the Proposed Development is not located in an area that is susceptible to increased flooding as a result of sea level rise.

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.1.3	Section 6.7	Assessment methodology – in-combination climate change impact assessment	The Scoping Report does not provide a description of the methodology to be used in the in-combination climate change impact assessment. The ES should explain how the in-combination climate change impacts have been identified and the methodology that will be used to determine the significance of effects. Any use of professional judgement to assess significance should be fully justified within the ES.



## 3.2 Cultural Heritage

(Scoping Report Section 7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.2.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Description	Inspectorate's comments
3.2.2	Paragraph 7.2.3	Grid connection corridor – study area	<p>The Scoping Report states that a 1km study area has been applied to the grid connection corridor as the proposed works would be largely underground. However, the Scoping Report explains that above ground components of the Proposed Development may also be located in the grid connection corridor. As a result, a wider study area may be proposed once the locations and extent of above ground components are confirmed.</p> <p>The ES should contain a robust justification to support the final study area for the grid connection corridor, on the basis of relevant professional guidance and the extent of the likely impacts. The Applicant should make effort to agree the approach with relevant consultation bodies. The final study areas and locations of the heritage assets should be depicted on supporting plan(s).</p>
3.2.3	Paragraph 7.5.7	Designated assets	The ES should provide a list of all the designated assets located within the defined cultural heritage study areas. A figure showing the location of the heritage assets in relation to the Proposed Development should also be provided.
3.2.4	Paragraph 7.7.14	Archaeological surveys	The Applicant should ensure that the information used to inform the assessment is robust and allows for suitable identification of assets likely to be impacted by the Proposed Development. The Applicant

ID	Ref	Description	Inspectorate's comments
			<p>should make effort to agree the need for intrusive investigations (paragraph 7.7.14 of the Scoping Report indicates that geophysical or trial trenching may be carried out) with relevant consultation bodies. Where necessary, intrusive investigations should be completed prior to submission of the DCO application and reported in the ES.</p>

### 3.3 Ecology

(Scoping Report Section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.3.1	Table 8-6	Operational effects on aquatic invertebrates	<p>The Scoping Report states that the solar panels are unlikely to attract aquatic invertebrates, as a result the Applicant proposes to scope out effects on aquatic invertebrates during operation of the Proposed Development. However, due to the close proximity of the solar PV site to waterbodies, in the absence of information, such as the arrangement of solar panels or clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope out these matters from the assessment.</p> <p>The ES should include an assessment of the effects on aquatic invertebrates during operation of the Proposed Development or provide evidence to demonstrate the absence of likely significant effects including agreement with relevant consultation bodies.</p>
3.3.2	Table 8-6	Great crested newts (GCN)	<p>Table 8-6 states that effects on GCN are currently scoped in but may be scoped out of the detailed impact assessment in the ES as District Level Licensing (DLL) is likely to be used to offset the effects of the Proposed Development on GCN.</p> <p>The Inspectorate understands that the DLL approach includes strategic area assessment and the identification of risk zones and strategic opportunity area maps. The ES should include information to demonstrate whether the Proposed Development is located within a risk zone for GCN. If the Applicant enters into the DLL scheme, Natural England (NE) will undertake an impact assessment and inform the Applicant whether their scheme is within one of the amber risk zones and therefore whether the Proposed Development is likely to have a significant effect on GCN. The outcome of this assessment</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>will be documented on an Impact Assessment and Conservation Payment Certificate (IACPC). The IACPC can be used to provide additional detail to inform the findings in the ES, including information on the Proposed Development's impact on GCN and the appropriate compensation required.</p> <p>For the avoidance of doubt, the Inspectorate agrees that this matter may be subsequently scoped out of further assessment, subject to the process set out above and NE's agreement that it is appropriate. If the DLL route is not pursued, the Applicant should include an assessment within the ES, including baseline surveys in line with NE's Standing Advice for GCN which suggests considering the use of a 500m study area.</p>

ID	Ref	Description	Inspectorate's comments
3.3.3	Paragraph 8.2.3	Study area – nationally designated sites	<p>The Scoping Report states that Sites of Special Scientific Interest (SSSIs) within 2km of the site have been scoped into the assessment. However, as highlighted by NE in their consultation response (see Appendix 2 of this Opinion), the ES should also assess the potential for air quality effects on SSSIs outside of the 2km study area, where they are located adjacent to roads affected by a significant increase in vehicle movements during construction and decommissioning of the Proposed Development. The Applicant should seek to agree the study area with NE.</p>
3.3.4	Paragraph 8.5.15 and Table 8-6	'Other notable mammal' surveys	<p>The Scoping Report does not propose to conduct any specific surveys of brown hare, hedgehog, and polecat. However, paragraph 8.5.15 of the Scoping Report states that signs of brown hare and suitable habitat for hedgehog and polecat have been identified on the solar PV site. It is unclear why specific surveys for these species are not</p>

ID	Ref	Description	Inspectorate's comments
			proposed. The ES should assess effects on these species, based on robust survey data or provide justification for the lack of survey data including evidence of agreement with relevant consultation bodies.
3.3.5	Paragraph 8.7.12	Zone of Influence (ZOI)	The Scoping Report states that the ZOI for the Proposed Development is " <i>the area over which ecological features may be affected by changes as a result of the Scheme and associated activities</i> " and may vary between each ecological receptor identified. However, no information is provided explaining how the ZOI will be determined. The ES should describe the methodology and factors used to determine the relevant ZOI(s) and state the relevant ZOI for each receptor or group of receptors.
3.3.6	Paragraph 8.8.6	Veteran trees	Paragraph 8.8.6 of the Scoping Report states that arboricultural surveys will be undertaken to inform the detailed design stage of the Proposed Development. The ES should identify any veteran trees which may be affected by the Proposed Development and assess any significant effects where they are likely to occur. Any mitigation measures required to avoid / reduce impacts to ancient woodland and/or veteran trees, for example buffer zones, should be described in the ES and secured in the DCO.
3.3.7	Table 8-5	Surveys	The Scoping Report explains that ecological surveys will only include the grid connection corridor area once the location has been refined. However, Table 8-5 states that GCN Environmental DNA (eDNA) surveys within the grid connection corridor were undertaken from 15 April to 30 June 2023. The ES should ensure that ecological surveys are also undertaken within the refined location of the grid connection corridor. The final location of GCN eDNA surveys should be confirmed in the ES.

ID	Ref	Description	Inspectorate's comments
3.3.8	Table 8-5	Wintering and passage bird surveys	<p>The Applicant should seek to agree the scope of wintering and passage bird surveys with relevant consultation bodies.</p> <p>The Inspectorate draws the Applicant's attention to the comments from NE in relation to vantage point (VP) surveys.</p>
3.3.9	Table 8-5	Grid connection corridor surveys	<p>The Scoping Report states that breeding bird, wintering bird and bat activity surveys within the grid connection corridor are not required. However, in the absence of detailed information regarding construction activities and the proposed construction lighting strategy, the Inspectorate considers that there is potential for effects on breeding and wintering birds and foraging and commuting bat species within the grid connection corridor during construction.</p> <p>The ES should ensure that ecological baselines are supported by robust assessments. Detailed breeding bird, wintering bird and bat activity surveys should be conducted for the Proposed Development site, including the grid connection corridor, or the ES should provide evidence of agreement from relevant consultation bodies that such surveys are not required.</p>
3.3.10	Table 8-6	Security lighting	<p>Table 8-6 of the Scoping Report explains that operational effects to other mammals include disturbance from security lighting. The effects of security lighting disturbance should also be considered in the ES for nocturnal species such as bats that have been scoped into the assessment.</p>
3.3.11	N/A	Confidential Annexes	<p>Public bodies have a responsibility to avoid releasing environmental information that could bring about harm to sensitive or vulnerable ecological features. Specific survey and assessment data relating to the presence and locations of species such as badgers, rare birds and plants that could be subject to disturbance, damage, persecution, or commercial exploitation resulting from publication of the information,</p>

ID	Ref	Description	Inspectorate's comments
			<p>should be provided in the ES as a confidential annex. All other assessment information should be included in an ES chapter, as normal, with a placeholder explaining that a confidential annex has been submitted to the Inspectorate and may be made available subject to request.</p>

### 3.4 Water Environment

(Scoping Report Section 9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.1	Paragraphs 9.5.47 to 9.5.50	Nutrient neutrality assessment	<p>The Scoping Report states that the site is not located within a local planning authority (LPA) area affected by nutrient pollution impacting on designated sites and there is no hydrological connectivity between the site and a designated ecological site whereby reduced water quality due to nutrient pollution is leading to adverse effects. Therefore, the Applicant proposes to scope out a nutrient neutrality assessment.</p> <p>The Inspectorate is content that the Proposed Development does not need to demonstrate nutrient neutrality through a nutrient neutrality assessment. However, where there is the potential for likely significant effects to occur in relation to nutrient and/or other emissions to water bodies, this should be assessed within the ES. The ES should also include a description of any measures proposed to reduce pollutant runoff into nearby watercourses, for example, design measures or best practice measures to be secured via the Construction Environmental Management Plan (CEMP).</p>

ID	Ref	Description	Inspectorate's comments
3.4.2	Paragraph 9.2.1	Study area	<p>The ES should provide justification for the use of a 1km study area for the water environment assessment and describe any waterbodies located outside of the established 1km study area that have also been included in the assessment, stating the distance from the Proposed Development, and explaining why the waterbody has been included.</p>



ID	Ref	Description	Inspectorate's comments
3.4.3	Paragraph 9.5.31	Ponds	Paragraph 9.5.31 of the Scoping Report lists the ponds located within the solar PV site study area. The ES should also include a list of the waterbodies located within the grid connection corridor search area that are likely to be affected by construction, operation and decommissioning of the Proposed Development.
3.4.4	Paragraph 9.6.4	Construction compounds	The Applicant should ensure that an assessment of the potential impacts from construction compounds on water environment receptors is included in the ES. The ES should also explain how the location of construction compounds, including the access, have been considered to reduce potential effects on the water environment and how any mitigation has been secured.
3.4.5	Paragraph 9.7.4	Mitigation measures	The Inspectorate notes the proposed use of mitigation measures, namely Sustainable Urban Drainage (SUDs). The design of such mitigation measures should be informed by relevant and up to date climate change allowances for the lifetime of the Proposed Development.
3.4.6	Figure 9-3	Figures	The Applicant should ensure that all features on the figures are clearly discernible, avoiding the use of coloured boundaries and features that are too similar to be differentiated. This issue is particularly evident when reviewing the flood zone and field boundary features on Figure 9-3 of the Scoping Report.
3.4.7	N/A	Flood Zone 3	Where relevant, the ES and Flood Risk Assessment (FRA) should differentiate between Flood Zones 3a and 3b in order to determine which parts of the site are located in areas considered as 'high probability of flooding' and 'functional floodplain'.

### 3.5 Landscape and Visual Amenity

(Scoping Report Section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.5.1	Paragraph 10.8.7 and Table 10-2	Standalone quantitative lighting assessment – construction, operation and decommissioning	<p>The Scoping Report proposes that impacts from lighting will be considered in the Landscape and Visual Impact Assessment (LVIA), rather than as a standalone quantitative assessment.</p> <p>On the basis that the effects from lighting will be assessed in the landscape and visual amenity chapter, the Inspectorate is content that a standalone quantitative lighting assessment can be scoped out of the ES. Any proposed mitigation measures should be described and appropriately secured. However, the ES should also address the effects of lighting in other relevant chapters, particularly ecology.</p>

ID	Ref	Description	Inspectorate's comments
3.5.2	Paragraphs 10.2.5 and 10.8.6	Impacts	<p>Paragraph 10.2.5 of the Scoping Report describes a preliminary study area of "up to 2km" from the solar PV site. In the absence of Zone of Theoretical Visibility (ZTV) mapping and an anticipated height and location(s) for the BESS(s), the Inspectorate considers that a study area of up to 2km may not be sufficient to address the extent of the likely impacts of the solar PV site.</p> <p>Section 2 of the Scoping Report describes available options for the panel module mounting structures. However, Section 10 of the Scoping Report does not describe a worst-case scenario for panel configuration in relation to LVIA whereas it has been defined for other aspects. The assessment of impacts to landscape and visual amenity (including the ZTV, study area and visualisations) should be based on the relevant worst-case having regard to module mounting structure,</p>

ID	Ref	Description	Inspectorate's comments
			panel configuration and any parameters applicable to the Proposed Development, including all proposed structures such as the BESS.
3.5.3	Paragraph 10.4.1	Viewpoints and visualisations	Proposed locations for viewpoints and visualisations have not been set out in the Scoping Report. The number and location of viewpoints and visualisations should be justified in the ES and effort should be made to agree these details (including whether a viewpoint from Askern Hill is required) with relevant consultation bodies, including the LPAs.
3.5.4	Section 10.6	Planting restriction impacts	It is unclear whether there would be planting restrictions over the grid connection corridor during operation.  Consideration should be given to the potential for operational phase effects to landscape and visual receptors as a result of any planting restrictions imposed by easements. The ES should assess any likely significant effects.
3.5.5	Paragraph 10.6.3 and Section 10.8	Mitigation planting	The ES should clearly present any assumptions made with regards to the height that the proposed mitigation planting would have reached by the assessment years, for the purposes of generating photomontages and reaching the assessment conclusions.

### 3.6 Noise and Vibration

(Scoping Report Section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.6.1	Paragraph 11.6.7 and Table 11-6	Operational vibration	Based on the Scoping Report stating that the equipment present during operation is of a type and would be used in locations such that operational plant would not generate perceptible levels of vibration, the Inspectorate is in agreement that an assessment of operational vibration can be scoped out of further assessment.
3.6.2	Paragraph 11.6.10 and Table 11-6	Operational traffic noise	The Scoping Report seeks to scope this matter out on the grounds that operational traffic movements will be limited and insufficient to result in significant changes to ambient noise levels in areas around the local road network. The Inspectorate agrees that operational noise from traffic can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.6.3	Paragraph 11.2.4	Grid connection corridor study area	<p>The Scoping Report states that the study area for the grid connection corridor will be 300m for construction, 50m from roads used by construction traffic and 500m for operational plant. However, paragraph 11.2.3 notes that works within the solar PV site require a study area of 500m for construction and operation.</p> <p>The ES should provide reasoning for the reduced study area for the grid connection corridor during construction or consider extending this study area to reflect the study area of the solar PV site. The ES should also present a study area for all elements of the Proposed Development.</p>

ID	Ref	Description	Inspectorate's comments
3.6.4	Paragraph 11.2.4	Construction traffic routes – noise and vibration study area	Paragraph 11.2.4 of the Scoping Report states that a study area of 50m either side of construction traffic routes will be used in the noise and vibration assessment. The ES should explain how the construction traffic routes and key roads have been identified for the purposes of the assessment.
3.6.5	Paragraph 11.2.5	Description of receptors	The Scoping Report states that selected noise receptors will be defined within the ES. The ES should explain how receptors have been identified and provide a figure showing their location, the assessment must address all potential significant effects.
3.6.6	Paragraph 11.2.6	Assessments within other chapters	The Scoping Report refers to assessments of noise and vibration on ecological and cultural heritage receptors. The Inspectorate considers that noise and vibration may also have the potential to lead to adverse effects on landscape and visual receptors (for example in terms of tranquillity), and as such the effects of noise and vibration on these receptors should be assessed.
3.6.7	Paragraph 11.8.4	Predictions of vibration	<p>The Scoping Report states that the ES will seek to rely on historic measurement data and that no predictions of ground borne vibration propagation are proposed.</p> <p>The Inspectorate is unclear as to why historical data only is to be used, or how an assessment of the effects from the Proposed Development can be undertaken if no predictions of vibration are undertaken. The ES should provide a justification of the chosen approach and describe how the likely significance of the effects has been determined.</p>
3.6.8	Figure 11-1	Baseline noise monitoring	The Inspectorate notes that the figure showing proposed noise monitoring locations and sensitive receptors does not currently include the grid connection corridor. It is also noted that not all of the identified sensitive receptors are to be subject to noise monitoring in

ID	Ref	Description	Inspectorate's comments
			<p>a nearby location (for example R6). The Inspectorate is concerned that the current proposals may not deliver a robust baseline. The Applicant must ensure that the noise monitoring provides adequate coverage across the entire area within the ZOI of the Proposed Development. As noted above, the ES should report on the predicted effects at all noise sensitive receptors within the project's ZOI. The Applicant is advised to seek to agree the noise monitoring locations with relevant consultation bodies.</p>

### 3.7 Socioeconomics and Land Use

(Scoping Report Section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.7.1	Paragraph 12.6.3 and Table 12-2	Mineral Safeguarding Area (MSA) – all project phases	<p>The Scoping Report indicates that there is an MSA, located within the 500m study area around the grid connection corridor search area. In the absence of any specific information relating to the location of the MSA, the Inspectorate is not in agreement that this matter can be scoped out of further assessment at present. This is on the basis that the presence of cabling, other infrastructure and potential standoffs, and the requirement to excavate / drill through the mineral resource during construction and decommissioning, has potential to result in impacts to the MSA.</p> <p>In the event that the chosen cable route(s) pass through the MSA, the ES should also describe why it was not possible to avoid this area (given the currently large search area).</p>
3.7.2	Table 12-2 and Paragraph 2.3.41	Best and Most Versatile (BMV) Land within the grid connection corridor – all phases	<p>The Scoping Report states that the installation of cables would only result in temporary construction impacts on BMV land in the grid connection corridor, and the cables would be buried to a sufficient depth to allow arable and pastoral farming to continue during operation of the Proposed Development. However, paragraph 2.3.41 states that the export connection to the National Grid may require above ground infrastructure within the grid connection corridor, of which the quantity / area required is unknown. It appears there is potential for the Proposed Development to result in the loss of agricultural land in the grid connection corridor beyond the impacts caused by cabling.</p> <p>Accordingly, the Inspectorate does not agree that this matter can be completely scoped out of further assessment. The ES should also</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>assess the extent of any BMV land which would be affected as a result of the installation of above ground infrastructure associated with the grid connection or provide evidence of the absence of LSE as agreed with relevant consultation bodies.</p> <p>In relation to the assessment of BMV, Scoping Report paragraph 12.5.29 states that <i>"a survey is proposed to be completed in areas where there are only underground cables"</i> whereas 12.7.4 states that <i>"however, areas where there would only [sic] underground cables are not proposed to be surveyed"</i>.</p> <p>Whilst the Inspectorate assumes that there is a typographic error in one of these paragraphs, the ES should provide clarity on the scope and rationale of ALC surveys.</p> <p>Where no surveys are proposed within areas of construction works for the Proposed Development, the ES should provide a justification for this, and how it can be assured that the ALC is adequately classified and how the area of construction works can be returned to its baseline ALC for agricultural use during operation, in particular for intrusive methods such as trenching.</p> <p>This is especially relevant in the event that any ALC surveys undertaken find that the current site-specific classifications are of a higher grade than the desk-based datasets indicate at present.</p> <p>Where ALC data is presented, it should include the entirety of the area required for the construction and operation of the Proposed Development, including any temporary access roads.</p>



ID	Ref	Description	Inspectorate's comments
3.7.3	Paragraph 12.5.14	Socioeconomic receptors	The Scoping Report states that there are no socioeconomic receptors within the solar PV site. The ES should explain why the agricultural land and any existing farm businesses that use this land are not considered to be receptors.
3.7.4	Paragraphs 12.5.25 and 12.7.9	Public Rights of Way (PRoWs) surveys	The Proposed Development will affect a number of PRoWs through temporary disruption and closure of routes. However, no surveys are proposed to understand the baseline use of these PRoWs. Unless appropriate mitigation to avoid LSE is secured within the DCO, surveys should be undertaken to establish the existing use of the PRoWs affected by the Proposed Development. This would allow an assessment to define the change in characteristics of tourism and recreational use of each PRoW.

### 3.8 Transport and Access

(Scoping Report Section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.8.1	Table 13-5	Hazardous loads during construction	<p>The Scoping Report states that there are no nearby road features which suggest that the transfer of materials poses a risk beyond what would be expected on the general highway network. In addition, the Scoping Report notes that the relevant measures employed to ensure safe vehicular transport of components such as panels and batteries to and from the site will be explained in the ES.</p> <p>The Inspectorate has considered the nature and characteristics of the Proposed Development and is content that an assessment on the transport of hazardous loads can be scoped out of further assessment.</p>
3.8.2	Table 13-5	Transport effects during operation	<p>The Applicant proposes to scope out operational transport effects on the basis that the number of vehicle movements would be significantly less than the construction phase, with one to three permanent staff on site and up to 20 visitors a month for deliveries and servicing of equipment. Paragraph 13.6.9 of the Scoping Report also states that any applicable mitigation measures would be included in a Framework Operational Environmental Management Plan (OEMP).</p> <p>The Inspectorate is content for this matter to be scoped out of further assessment based on the indicative traffic figures provided. The ES description of the Proposed Development should confirm the anticipated trip generation during operation.</p>
3.8.3	Paragraph 13.6.10 and Table 13-5	Transport and access effects during decommissioning	<p>The Scoping Report states that the number of vehicle movements during decommissioning would be no worse than the construction phase and considers that the effects and mitigation measures defined</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>for construction of the Proposed Development are applicable for decommissioning. As a result, the Applicant proposes to scope out an assessment of the transport effects during decommissioning.</p> <p>The Inspectorate accepts that a full assessment may not be possible at the current time due to uncertainties at this stage in the number of vehicles required during decommissioning. However, the ES should provide a description of this matter given the comments at paragraph 13.6.1 of the Scoping Report, that "<i>the greatest impact is likely to occur during the construction and decommissioning phases.</i>" Accordingly, the ES should include an assessment of these matters or provide information demonstrating agreement with the relevant consultation bodies and the absence of an LSE.</p>

ID	Ref	Description	Inspectorate's comments
3.8.4	Section 13.2	Study area	<p>The ES should confirm the final study area and key roads included in the assessment and explain how they have been identified. In addition to engagement with relevant consultation bodies, consideration should also be given to industry guidance, the extent of the potential impacts and likely receptors, both human and ecological. A plan illustrating the extent of the study area, and the expected route(s) of construction traffic, should be included in the ES.</p>
3.8.5	Paragraph 13.6.16	Mitigation – highway improvements	<p>If highways works / improvements are required as part of the mitigation for significant effects arising from construction transport, these should be fully explained within the ES and an assessment of any likely significant effects as a result of these works should also be presented, as relevant.</p>

ID	Ref	Description	Inspectorate's comments
3.8.6	N/A	Access routes	<p>As part of the description of the Proposed Development, the ES should describe the proposed site entrance(s) and the routes to be used for all vehicular access during construction and operation of the Proposed Development and this information should be clearly presented on supporting plans within the ES.</p> <p>The ES should describe and assess the potential LSE associated with any improvements / changes to the access routes which are either required to facilitate construction of the Proposed Development or are required for restoration purposes on completion of the works. For the assessment of impacts during construction, the ES should explain how the proposed access route(s) relate to sensitive receptors.</p>

### 3.9 Other Environmental Topics: Air Quality

(Scoping Report Section 14.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.9.1	Paragraph 14.2.12	Air quality impacts from operational traffic	Based on the anticipated permanent and visiting staff detailed within paragraph 2.5.3, the Inspectorate is in agreement that an assessment of air quality impacts from operational traffic can be scoped out of further assessment.
3.9.2	Paragraph 14.2.15	Air quality impacts during construction	The Scoping Report does not specify whether air quality impacts during construction are scoped in or out. In the absence of information such as evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. Accordingly, the ES should include an assessment of dust and emissions from construction plant, or the information demonstrating agreement with the relevant consultation bodies and the absence of LSE.
3.9.3	Paragraph 14.2.16	Air quality impacts from construction traffic	Whilst the HGV movements given in paragraph 2.4.7 (20 to 25 per day) are below the 200 movements per day threshold given in paragraph 14.2.16, the Scoping Report states that up to 400 construction workers with an as yet unspecified travel route, and an unspecified volume of non-HGV construction traffic, would be on site during the peak construction works. No threshold criteria are given for this, or evidence provided as to why this would not result in potentially significant effects. The ES should either provide an assessment of this matter or demonstrate why the number of car and LGV movements would not lead to LSE from changes to air quality.
3.9.4	Paragraph 14.2.18	Air quality impacts from operational emissions	Scoping Report paragraph 14.2.18 states that no emissions are anticipated from the onsite infrastructure. However, paragraph 2.2.36

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>(Proposed Development description) indicates that BESS may require auxiliary power. The ES should confirm whether any backup generators or other power sources which may emit emissions are required and include these in the air quality assessment where relevant, as this is not currently listed. The ES should either provide an assessment of this matter or a justification as to why LSE would not arise.</p>

ID	Ref	Description	Inspectorate's comments
3.9.5	Paragraph 14.2.2	Study area	<p>Paragraph 14.2.2 of the Scoping Report states that a study area of 50m either side of construction traffic routes will be used in the air quality assessment. As set out in ID 3.6.4 above, the ES should explain how the construction traffic routes and key roads have been selected for the assessment, and how it can be assured that construction traffic will adhere to these routes only.</p> <p>The study area in the ES should extend to 200m of the affected road network to ensure that all relevant ecological receptors have been identified. The Applicant's attention is drawn to the advice from NE on this point (see Appendix 2 of this Opinion).</p>

### 3.10 Other Environmental Topics: Glint and Glare

(Scoping Report Section 14.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.10.1	Paragraph 14.3.13 and Table 16-2	Assessment of impacts from glint and glare during construction and decommissioning	<p>Based on the nature of the activities, the distances to receptors and the implementation of the detailed CEMP and detailed Decommissioning Environmental Management Plan (DEMP), the Scoping Report proposes to scope an assessment of impacts from glint and glare during construction and decommissioning out of the ES.</p> <p>The Inspectorate has considered the nature and characteristics of the Proposed Development and is content with this approach. An assessment of impacts from glint and glare during construction and decommissioning can be scoped out of further assessment.</p>

ID	Ref	Description	Inspectorate's comments
3.10.2	Paragraphs 14.3.9 to 14.3.11	Study area and sensitive receptors	<p>The Scoping Report states that a 1km study area would initially be used for ground-based receptors (noting that this may be increased).</p> <p>The Applicant is advised to use the ZTV to be developed for the LVIA to identify ground-based sensitive receptors with potential views of the site, which may therefore be affected by glint and glare. This should include train drivers and boat users, where significant effects are likely to occur. The ES should justify the choice of study area and sensitive receptors with reference to the extent of the likely impacts. Effort should be made to agree these details with relevant consultation bodies.</p>

ID	Ref	Description	Inspectorate's comments
3.10.3	Paragraph 14.3.17	Mitigation	The Scoping Report confirms that if glint and glare is likely to be a nuisance or hazard, mitigation will be proposed, although further details are not provided. The ES should include a description of any necessary mitigation measures relevant to impacts from glint and glare and explain how such measures are secured through the DCO or other legal mechanism.
3.10.4	Paragraph 14.3.20	Glint and glare technical appendix	As noted above, the Inspectorate is content that a standalone ES chapter for glint and glare is not required. It should however be clear in the ES, with appropriate cross-referencing and explanation, how the findings presented in the glint and glare technical appendix have been integrated with relevant aspect assessments, including LVIA, cultural heritage, transport, and major accidents and disasters.



### 3.11 Other Environmental Topics: Ground Conditions

(Scoping Report Section 14.4)

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
3.11.1	Paragraph 14.4.7	Operational and maintenance activities	On the basis that there is limited potential for pollution incidents during operation and maintenance, and the Proposed Development will be subject to an OEMP and Emergency Response Plan, the Inspectorate is in agreement that an assessment of impacts to geology and ground conditions can be scoped out of further assessment for the operational phase.

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.11.2	N/A	N/A	N/A

### 3.12 Other Environmental Topics: Major Accidents and Disasters

(Scoping Report Section 14.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.12.1	Paragraph 14.5.10	Design evolution and resulting request to scope out	The Inspectorate does not consider that sufficient detail is given within the Scoping Report in order to be able to agree to scope out certain major accidents and disasters based solely on the scheme design evolution. The Inspectorate considers it appropriate to assess the major accidents and disasters scoped in within Appendix D and Table 14-1. Accordingly, the ES should include an assessment of this matter or the information demonstrating the absence of an LSE.
3.12.2	Table 14-1	Fire from BESS	The Inspectorate considers that the presence of the BESS may have the potential to result in other major accidents and disasters (in the event of a fire or other emissions), including but not limited to air quality, explosions and contaminated firefighting water run off etc. The major accidents and disasters assessment should therefore scope in fire and associated effects from BESS.
3.12.3	Appendix D	Long list of major accidents and disasters	Based on the information provided within the Scoping Report, the Inspectorate is in agreement that an assessment of the following major accidents and disasters, in relation to both the risk of the Proposed Development causing, and the Proposed Development's vulnerability to, can be scoped out: <ul style="list-style-type: none"> <li>• geological disasters – landslides, earthquakes, sinkholes;</li> <li>• hydrological disasters – limnic eruptions, tsunamis / storm surge;</li> </ul>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<ul style="list-style-type: none"> <li>• meteorological disasters – blizzards, cyclonic storms, droughts, thunderstorms, hailstorms, heat waves, tornadoes, air quality events (dependent on BESS comments above);</li> <li>• engineering accidents – bridge failure, tunnel failure or fire, mast and tower collapse, building fire or failure;</li> <li>• industrial accidents – defence, energy, nuclear, oil and gas, food, chemical, manufacture, mining;</li> <li>• terrorism / civil unrest;</li> <li>• war; and</li> <li>• disease – human or animal.</li> </ul>
3.12.4	Appendix D	Long list of major accidents and disasters	The Inspectorate notes that categories included in other chapters of the Scoping Report, and some events typically considered are not included within the long list, for example land or water pollution events. The ES should ensure that all possible sources of major accidents and disasters are considered for assessment, and where these are proposed to be scoped out, provide justification for this.

ID	Ref	Description	Inspectorate's comments
3.12.5	N/A	N/A	N/A

### 3.13 Other Environmental Topics: Telecommunications and Utilities

(Scoping Report Section 14.6)

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
3.13.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment.

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.13.2	N/A	N/A	N/A

### 3.14 Other Environmental Topics: Electromagnetic Fields

(Scoping Report Section 14.7)

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed aspect to scope out</b>	<b>Inspectorate's comments</b>
3.14.1	Paragraph 14.7.7	Electromagnetic fields (EMF)	<p>Based on the criteria and thresholds listed within paragraph 14.7.7, the Inspectorate is in agreement that an assessment of the impacts from EMF from underground cables can be scoped out of the ES. However, the statement in paragraph 14.7.4 of "<i>no overhead electricity cables would be used or constructed</i>" does not match the Proposed Development description in paragraph 2.3.41 which indicates two options involving overhead line drops.</p> <p>The Inspectorate draws the Applicant's attention to the UK Health Security Agency's (UKHSA) consultation response (see Appendix 2 of this Opinion) which requests the ES to confirm that the Proposed Development does not contain any EMF sources that have a potential public health impact or ensure that an appropriate health impact assessment of EMF is carried out in the ES.</p>

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.14.2	N/A	N/A	N/A

### 3.15 Other Environmental Topics: Materials and Waste

(Scoping Report Section 14.8)

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
3.15.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment.

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.15.2	N/A	Permitted landfill sites	The Environment Agency's consultation response has indicated that a permitted landfill is located within the grid connection corridor search area. The ES should include an assessment, where relevant, of the potential to impact on this landfill site, including the ability of the site to undertake ongoing groundwater monitoring.

## APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

**TABLE A1: PRESCRIBED CONSULTATION BODIES<sup>1</sup>**

<b>SCHEDULE 1 DESCRIPTION</b>	<b>ORGANISATION</b>
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Integrated Care Board	NHS Humber and North Yorkshire Integrated Care Board
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England
The relevant fire and rescue authority	South Yorkshire Fire and Rescue
The relevant police and crime commissioner	South Yorkshire Police and Crime Commissioner
	North Yorkshire Police and Crime Commissioner
The relevant parish council(s)	Moss and District Parish Council
	Sykehouse Parish Council
	Barnby Dun with Kirk Sandall Parish Council
	Thorpe in Balne Parish Council
	Owston Parish Council
The Environment Agency	Environment Agency
The Civil Aviation Authority	Civil Aviation Authority
The relevant Highways Authority	City of Doncaster Council Highways Authority

<sup>1</sup> Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

<b>SCHEDULE 1 DESCRIPTION</b>	<b>ORGANISATION</b>
The relevant strategic highways company	National Highways
The Coal Authority	The Coal Authority
The relevant internal drainage board(s)	Danvm Drainage Commissioners
	Selby Area Internal Drainage board
	Cowick and Snaith Internal Drainage board
	Black Drain Drainage Board
	Doncaster East Internal Drainage board
	Goole and Airmyn Internal Drainage board
	Thorntree Internal Drainage board
	Rawcliffe Internal Drainage board
The Canal and River Trust	Canal and River Trust
United Kingdom Health Security Agency	United Kingdom Health Security Agency
The Forestry Commission	Forestry Commission

**TABLE A2: RELEVANT STATUTORY UNDERTAKERS<sup>2</sup>**

<b>STATUTORY UNDERTAKER</b>	<b>ORGANISATION</b>
The relevant NHS Trust	Yorkshire and the Humber Ambulance Service NHS Trust
Railways	Network Rail Infrastructure Ltd
	National Highways Historical Railways Estate
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding

<sup>2</sup> 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (PA2008)



<b>STATUTORY UNDERTAKER</b>	<b>ORGANISATION</b>
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant water and sewage undertaker	Yorkshire Water
The relevant public gas transporter	Cadent Gas Limited
	Northern Gas Networks Limited
	Scotland Gas Networks Plc
	Wales and West Utilities Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Harlaxton Gas Networks Limited
	Indigo Pipelines Limited
	Last Mile Gas Ltd
	Leep Gas Networks Limited
	Squire Energy Limited
National Gas Transmission Plc	
The relevant electricity generator with CPO Powers	UK Power Reserve (Trumfleet) Ltd
	Thorpe Marsh Power Limited
The relevant electricity distributor with CPO Powers	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited

STATUTORY UNDERTAKER	ORGANISATION
	Harlaxton Energy Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd
	Leep Electricity Networks Limited
	Mua Electricity Limited
	Optimal Power Networks Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
	Northern Powergrid (Yorkshire) Plc
The relevant electricity transmittor with CPO Powers	National Grid Electricity Transmission Plc
	National Grid Electricity System Operation Limited

**TABLE A3: SECTION 43 LOCAL AUTHORITIES (FOR THE PURPOSES OF SECTION 42(1)(B))<sup>3</sup>**

LOCAL AUTHORITY <sup>4</sup>
City of Doncaster Council
Bassetlaw District Council
Rotherham Metropolitan Borough Council
Barnsley Metropolitan Borough Council
Wakefield Metropolitan District Council
North Yorkshire Council
East Riding of Yorkshire Council

<sup>3</sup> Sections 43 and 42(B) of the PA2008

<sup>4</sup> As defined in Section 43(3) of the PA2008

**LOCAL AUTHORITY<sup>4</sup>**

North Lincolnshire Council

Nottinghamshire County Council

## APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

<b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b>
Canal and River Trust
City of Doncaster Council <sup>5</sup>
Environment Agency
Health and Safety Executive
Historic England
National Grid Electricity Transmission Plc
NATS En-Route Safeguarding
Natural England
Network Rail
South Yorkshire Fire and Rescue
South Yorkshire Police (on behalf of South Yorkshire Police and Crime Commissioner)
The Coal Authority
United Kingdom Health Security Agency
Wakefield Metropolitan District Council
Yorkshire and Humber Drainage Boards (on behalf of Danvm Drainage Commissioners, Cowick and Snaith Internal Drainage board, Black Drain Drainage Board and Rawcliffe Internal Drainage board)

<sup>5</sup> The City of Doncaster Council's scoping consultation response includes responses from National Highways, Yorkshire Water and South Yorkshire Archaeology Service that were submitted directly to the Council. National Highways and Yorkshire Water were included in the Planning Inspectorate's statutory scoping consultation; however responses were not received directly to the Planning Inspectorate.

**Patten, Jack**

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**From:** Simon Tucker <[REDACTED]>  
**Sent:** 05 June 2023 10:47  
**To:** Fenwick Solar Farm  
**Subject:** RE: EN010152 - Fenwick Solar Farm - EIA Scoping Notification and Consultation

Thank you for your consultation on Fenwick Solar Farm

Having viewed the location of the project relative to the Trust's assets, the Canal & River Trust can confirm we have no comments to make on the EIA Scoping details provided.

Kind Regards

Simon Tucker MSc MRTPI  
Area Planner North East, Canal and River Trust

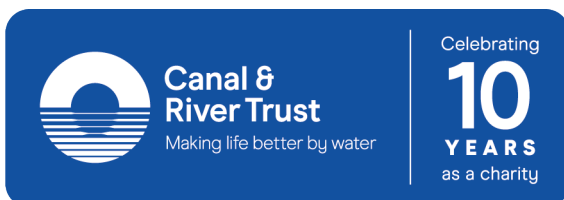
T [REDACTED]  
E [REDACTED]

**Canal & River Trust**  
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[www.canalrivertrust.org.uk](http://www.canalrivertrust.org.uk)

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# City of Doncaster Council

Environmental Services  
Operations Group 3  
Temple Quay House  
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**Tel:** [REDACTED]  
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**Website:** [www.doncaster.gov.uk](http://www.doncaster.gov.uk)  
**Our Ref:** 23/01167/CON  
**Date:** 28<sup>th</sup> June 2023

*Proposal* **Application by Fenwick Solar Project Limited (the Applicant) for an Order granting Development Consent for the Fenwick Solar Farm (the Proposed Development)**

Dear Sir/Madam.

I am responding on behalf of the City of Doncaster Council to your email communication of 2/6/2023 regarding the above. The Council have consulted the relevant consultees to request what information should be included within the Applicant's Environmental Statement (ES) and provided other initial comments as per the below.

## **Internal Consultees**

### Air Quality

Air Quality issues are covered in Section 14.2 of the scoping report. Officer agrees with conclusions of report in that there will be minimal vehicle movements associated with the operation. Nothing further to be included in the Environmental Statement.

### Open Space Officer

The proposal does not include open space nor impact any allocated public open. No further comments.

### Highways Development Control

Further information required as follows:

- The proposed access point locations into all areas of the solar farm;
- Type of delivery/construction vehicles which will serve the site;
- Tracking of the deliver /construction vehicles into the access points and nearby junctions;
- Routing strategy along the highway network between the motorway and the site;
- Expected daily numbers
- Tracking at sensitive junctions

### Transportation

The Transport Assessment (TA) is to be submitted within the ES. The TA must contain all the information required to enable the Officer to carry out a full assessment of the impact of the development.



### Highways Safety

Construction access is yet to be determined. All construction access will need to be confirmed as the design progresses, in consultation with the relevant authorities.

It is anticipated that existing local roads will need to be utilised, subject to the suitability of these roads. Many of the roads around the site are currently accessible to farm machinery and agriculture-related HGVs and may require upgrading/widening and new road construction to accommodate abnormal loads and ensure suitable visibility splays at the access/egress points. This will need to be determined as the scheme progresses and assessed as appropriate in the ES.

### Urban Design Officer

The main design issues will be the landscape and visual impact. The scoping report confirms that a LVIA will be carried out according to usual industry guidelines and good practice. The detail in the scoping report is considered to be acceptable.

### Planning Policy – Employment

No response.

### Planning Policy – Waste and Minerals

No mineral safeguarding issues, agree with findings of the scoping report.

### Planning Policy – Flood Risk

Majority of the proposed site lies within Flood Zone 1 and 2, though parts extend into Flood Zone 3. NPPF Annex 3: Flood Risk Vulnerability Classification, places the proposed use of a Solar Farm as 'essential infrastructure'. As the development site crosses various Flood Zones (1, 2 and 3) Table 2: flood risk vulnerability and flood zone incompatibility states that an exception test is required.

The NPPG states that for nationally or regionally important infrastructure the area of search to which the Sequential Test could be applied will be wider than the local planning authority boundary. Currently in terms of Solar Farms, the Council's Technical Developer Guidance (April 2022) states that if a proposal meets one of the categories set out in Table 9 then it avoids the need for a sequential test. With regards Solar Farms the table says development proposals identified as "essential infrastructure" will not require a sequential test, however a site-specific flood risk assessment will be required, and should consider how they can remain operational during times of flooding.

An exceptions test should demonstrate why that development has to be in a flood risk area and how it will provide wider sustainability benefits to the community that outweigh flood risk. The exceptions test must show that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall (NPPG).



# City of Doncaster Council

## Tree Officer

The following information required within the ES:

- A tree and hedgerow survey in accordance with BS5837 (2012), the findings of which should be shown to have informed the design, layout and access to maximise retention of the best of the surveyed elements.

In terms of hedgerows, ecological, cultural and historic information will need to be submitted (so as to be able to assess hedgerows against the criteria set by the Hedgerow Regulations 1997).

## Public Rights of Way

Generally agree with the findings of the scoping report. Though the ES should include reference to equestrians as there is no specific mention of equestrian users which are key receptors and must be considered.

## Contamination

Section 14.4: Ground Conditions on the submitted scoping report confirms a Preliminary Risk Assessment (PRA) will be carried out in accordance with the EA's Land Contamination Risk Management guidance, which is most welcomed. It is noted there are no obvious historic sites of concern within the footprint of the proposed development. It is understood the need for large-scale earth works is unlikely, however if required, a MMP will be submitted, to which I concur. The PRA will consider human health and controlled waters, and form the foundation for the CEMP, DEMP & MMP (if required).

All the relevant best practise and appropriate guidance is referenced within this excellent report, as such I have no questions or requested for further information.

## Ecology

The scoping report covers all of the significant ecological issues. However this does not address wider concerns regarding the development of solar farms in agricultural areas and the cumulative impacts upon rural environments. The report does not refer to the reduction of open landscapes that provide landscape quality ecological pathways and corridors and the loss of high quality agricultural land. At Table 6.2 of the scoping report it identifies in combination effects as follows: *'The Scheme in combination with climate change has the potential to have an impact on the prevailing biodiversity in the surrounding area.'*

The ES should include an assessment of the in-combination effects of the proposal with other solar farm proposals, either granted, to be determined and future proposals. The Ecologist has great fears that a 'tipping point' of cumulative impacts on ecological networks will be missed and we will be looking back to a time when such effect should have been more at the forefront of assessments.

The Council are seriously alarmed at the number of proposals and future proposals that will not be subject to an analysis of the cumulative impacts. The area around the proposal site is intrinsically rural with no main roads or large urban areas. The widespread nature of solar farm could have a significant impact on this character and ecological functionality.





# City of Doncaster Council

It would seem that there is no strategic planning attached to the distribution of solar farms and it may just be a matter of large land owners seeing the economic advantage in converting large areas of land to solar farms. However, it appears to be a haphazard approach to solar farm location and will be looked back on with regret.

Even with the implementation of biodiversity net gain assessments the Ecologist fails to see how over a district level scale that biodiversity can be protected and pathways that provide ecological networks and species populations can be usefully sustained.

## Planning Policy - Renewable Energy

The site lies within the Countryside Policy Area. Policy 58 is supportive of solar wind farms in principle subject to the criteria set out in Part B, though still needs to be read in conjunction with the other Local Plan policies.

## Conservation

No heritage assets are directly affected in this flat landscape but the site surrounds two farm complexes of listed and other heritage assets and there will be potential setting impacts on others further afield. The proposal also includes a grid connection search area though some heritage assets of national significance are excluded from this.

The Scoping Report follows the standard approach with a section on cultural heritage (Section 7) and another on visual impact (Section 10). This brings into consideration the large number of heritage assets that are potentially affected. The cultural heritage section follows a standard methodology which is acceptable though parts are too archaeologically focussed. The South Yorkshire Archaeology Service (SYAS) should review this and be consulted as part of the cultural heritage assessment.

As far as the above ground heritage assets are concerned, the assessment should go further than discussing intervisibility between heritage assets and the site (particularly for those assets in Fenwick) and to relate this to their heritage significance. This can also be linked to the viewpoints selected for the visual impact assessment.

## Drainage

No comments to make.

## Planning Policy – Agricultural Land

NPPF Paragraph 174 and Local Plan Policy 60 refer to the protection of the best and most versatile agricultural land. From an agricultural land perspective, the policy above seeks to conserve and minimise the loss of Doncaster's extensive area high quality arable farmland. Agriculture is the main land use within the Doncaster making up nearly two thirds of the total land area.

This vital resource is coming under increasing pressure from 'renewables' development proposals and this cumulative pressure should be seriously considered when making a decision to grant applications on high value agricultural land. Policy at all levels is very clear



# City of Doncaster Council

and states *'where significant development is unavoidable, preference will be given to the use of poorer quality agricultural land in preference to higher quality land'*. Care should also be taken to avoid damage or disturbance to soils of high environmental value and other soils that contribute significantly to ecosystem services.

Looking at the Defra Agricultural Land Map (Appendix one; Map two page 5 of this response) this shows that the proposal area is predominantly in grade 4 agricultural land and as such, there are no national or local policy constraints associated with the proposal.

The linear area of the very northern boundary of the proposal area is however grade three agricultural land (Appendix one; Map one page 4) and will need require further consideration (potentially including the consideration of alternatives or exclusions) to determine whether the soil is grade 3a or 3b in line with national and local policy, to conserve and minimise the loss of Doncaster's extensive high quality arable farmland. Alternatively, the boundary could be amended to exclude the area identified as grade 3 soil from the proposal.

## **External Consultees**

### NATS Safeguarding

NATS operates no infrastructure within 10km of the site in question, thus anticipates no impact from the proposal and has no objections.

### Health & Safety Executive

The proposed development would not store or process hazardous substance and is not located within a safeguarding zone of an explosives site. The development is not located within HSE's land use planning consultation zones for major accident hazard pipelines. Therefore, there is no requirement to consult HSE.

### Environment Agency

To respond direct.

### South Yorkshire Fire

No comments to make.

### National Highways

Further information required including/relating to:

- Decommissioning Management Report to secure and mitigate any potential impact on the strategic road network;
- Locations of any operations or construction site access;
- The impact of the proposal on the strategic highway network over both the operational and construction phase in terms of absolute two-way flows over both morning / evening network peak hours. This is opposed to either total daily flows or proportional flows (percentage increase) in relation to baseline flows at any specific junction;



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- Confirmation of the expected 'peak' arrival / departure profile of construction vehicles, including construction staff, deliveries and associated movements during an identified 'peak' construction period, and how long this period may continue for, opposed to the generation of average movements or total daily / monthly movements;
- Specific first principles data underpinning any proposed development trip generation. For reference, National Highways would expect the first principles data to reflect a comparable solar development of comparable scale in a geographical location that largely reflects rural nature of the scheme area and the scope of construction considered;
- The model methodology to be used. Moreover, consideration will need to be given to whether, and in what proportion, workers will originate from the local area or whether they will be staying in local hotels immediate to the scheme sites;
- The anticipated distribution of HGVs associated with the delivery of construction materials and associated infrastructure;
- Appropriate collision data/analysis;
- Operational impacts and, if required, mitigation strategy, will need to be agreed with National Highways.

Any impact associated with the operation and maintenance can likely be scoped out of subsequent highway assessments, once these values are confirmed. The Applicant should engage with and adhere to the guidance contained within DfT Circular 01/2022: The Strategic Road Network and the Delivery of Sustainable Development.

At the point at which development highway impact can be agreed with National Highways, the composition of any junction specific modelling, if necessary (inclusive of future year growth rates, inter alia), can be agreed at this point.

National Highways would expect that the standard procedure will be followed by the Applicant, however, it is noted that potential carriageway width, height and weight restrictions for the movement of such vehicles will need to be discussed and agreed with National Highways. As such, National Highways would advise that the Applicant directly discusses any matters pertaining to AIL movements with the National Highways Abnormal Indivisible Loads team ([AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk](mailto:AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk)).

The highway assessment study area should extend to any SRN junction where a potential impact needs to be considered (to aid discussions National Highways suggest 30 two-way trips being a starting point for consideration).

National Highways consider it unlikely that matters relating to potential glint and glare impacts will incur any safety issue at the SRN for highway users. Nevertheless, National Highways welcome confirmation that the effect of glint and glare on the immediate landscape will be considered within forthcoming planning documentation.

Yours Sincerely,

Jessica Duffield

Principal Planning Officer



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**28<sup>th</sup> June 2023**

**Development and Planning  
City of Doncaster Council  
Civic Office  
Waterdale  
Doncaster  
DN1 3BU**

**FOR THE ATTENTION OF: Jess Duffield**

**Dear Jess,**

**23/01167/CON Application by Fenwick Solar Project Limited (the Applicant) for an Order granting Development Consent for the Fenwick Solar Farm (the Proposed Development), Fenwick Solar Farm**

**Thank you for sending on details of the above consultation. SYAS has met with the applicants and their archaeological consultants, having initial discussions about the proposals and archaeological requirements to support an application.**

**The scoping report identifies possible impacts to designated and non-designated heritage assets alongside the potential for previously unrecorded heritage assets to be present. Impacts to the heritage assets could be direct i.e. physical or indirect i.e. to the setting. Consequently, all matters relating to the historic environment are to be scoped into the EIA and a detailed methodology is presented. SYAS agrees with this proposal. An archaeological desk-based assessment will be undertaken supplemented by appropriate fieldwork consisting of, as a minimum, geophysical survey and trial trenching. In addition to guidance noted, such work should also comply with 'SYAS Standards & Guidance for Archaeological Desk-Based Assessments & Building Appraisals' and 'SYAS Standards and Guidance for Archaeological Field Evaluation'. In particular, it will be important to include a detailed and thorough assessment of any extant earthworks, for example- ridge & furrow, within the site using appropriate expertise. This should take account not only of the character, age, state of preservation, group value and associations of the different parcels but also any historic and aesthetic value.**

Little detail is available on mitigation proposals at this stage but preservation *in situ* through design or exclusion from the scheme should be given the highest consideration. There is also little mention of public benefits in relation to the historic environment. The Environmental Statement should begin the process of exploring how public benefits may be delivered to the local community through any archaeological investigation as mitigation for any impact on their cultural heritage. Opportunities for the enhancement of public awareness of the history and archaeology of the site should be identified and described.

Finally, the inclusion of impacts to the historic environment through the decommissioning process is welcome. Often this part of the scheme is not fully considered but has the potential to cause harm to any features that were preserved *in situ*.

Please contact SYAS, should there be a problem with the above recommendations.

Yours sincerely,

Andy Lines  
Archaeologist

Development Management  
Civic office  
Waterdale  
Doncaster  
South Yorkshire  
DN1 3BU

Your Ref: 23/01167/CON  
Our Ref: Z003038

Yorkshire Water Services  
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For telephone enquiries ring :  
Francis Davies on 0345 120 8482

29th June 2023

Dear Sir/Madam,

**Fenwick Solar Farm, Fenwick, Doncaster - EIA Scoping Opinion - Proposed Solar Farm**

Thank you for consulting Yorkshire Water (YW) on the above proposed development we have the following comments.

The application relates to a site area of 323ha, circa 12km North of Doncaster. The red line boundary as shown in Appendix A, figure 1 of the Scoping report excludes the settlements of Riddings Farm and Fenwick Hall. The northern part of the application site is located within Source Protection Zone SPZ3 (Total Catchment)

The Scoping report details that matters of the water environment including but not limited to surface water features, water quality, and hydrogeology and groundwater will be scoped into any Environmental Statement (ES). The report also states that any ES will be accompanied by a Flood Risk Assessment (FRA) and Construction Environmental Management Plan (CEMP). Yorkshire Water welcomes the inclusion of these topics and supporting FRA and CEMP.

At this early stage in the development process YW would highlight that the application site is crossed by multiple 4-inch live water main likely serving the central settlements of Riddings Farm and Fenwick Hall. Our mapping shows that these assets follow the route of the highway network of Lawn Lane and Bunfold Shaw Lane. However, a 4-inch water main does divert from Bunfold Shaw in the direction of West Lane. The presence of this infrastructure must be taken into consideration affording protection as may be necessary.

The application site is show as being remote from the sewer network.

Yours faithfully

**Francis Davies**  
Pre-Development and Planning Manager



Jack Patten - EIA Advisor  
The Planning Inspectorate  
Environmental Services  
Operations Group 3  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

**Our ref:** XA/2023/100007/01-L01  
**Your ref:** EN010152  
**Date:** 30 June 2023

[via email: [fenwicksolar@planninginspectorate.gov.uk](mailto:fenwicksolar@planninginspectorate.gov.uk)]

Dear Jack Patten

**EIA SCOPING CONSULTATION: FENWICK SOLAR FARM,  
LAND EAST OF FENWICK AND SOUTH OF THE RIVER WENT, NEAR  
DONCASTER**

Thank you for consulting the Environment Agency on the Environmental Impact Assessment (EIA) Scoping Opinion for the above proposed development. We have reviewed the Fenwick Solar Farm Environmental Impact Assessment Scoping Report, produced by AECOM (dated June 2023).

Insofar as it relates to our remit, we broadly agree with the topics that have been scoped in and scoped out of the EIA, and would like to make the following comments:

**Chapter 2 – The Scheme**

**2.3.42** We welcome the intention to use trenchless methods of cable installation at certain locations, such as river / water features. However, the report does not provide any further detail on how watercourses are proposed to be crossed. Crossings over statutory main rivers would be subject to flood risk activity permitting (advice to the applicant is provided further below).

**2.3.50 and 8.6.1 (Chapter 8)** We welcome the intention to achieve biodiversity net gain (BNG) levels greater than the minimum 10%. We would welcome the opportunity to engage with the applicant regarding the opportunities for provision of BNG on and off the site to enhance local habitat. Further comments are provided below.

**Chapter 8 – Ecology**

We are generally satisfied with the information provided and proposed scope, insofar as it relates to our remit, in regard to aquatic ecology and water-dependent habitats.

A significant proportion of the study area is characterised as Floodplain Grazing Marsh, a priority habitat. Much of it is degraded, and some of the better examples are covered

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Cont/d..

by statutory (SSSI) and non-statutory designations (e.g. Local Wildlife Site). This habitat should be identified through the Phase 1 Habitat Survey and Habitat Condition Assessment.

## **Biodiversity net gain**

We support the applicant's intention to provide biodiversity net gain (BNG) as part of the proposals. New developments should not only protect watercourses and their riparian corridors, but also provide overall net gain for biodiversity. Net gain for biodiversity is defined as delivering more or better habitats for biodiversity and demonstrating this through use of the latest [Defra Biodiversity Metric](#). It encourages development that delivers biodiversity improvements through habitat creation or enhancement after avoiding or mitigating harm.

This approach is supported by section 4.5 of Overarching National Policy Statement (NPS) for Energy (EN-1), and paragraphs 174 and 179 of the National Planning Policy Framework (NPPF).

The Environment Act 2021 looks to ensure that the overall impact from development on the environment is positive. The Act includes measures to strengthen local government powers in relation to net gain and a minimum requirement of 10% biodiversity net gain. Although we recognise that provision of BNG is not yet mandatory for Nationally Significant Infrastructure Projects, we encourage the applicant to consider an approach to development that results in measurable net gains in biodiversity, having taken positive and negative impacts into account.

The enhancement of biodiversity in and around development should be led by a local understanding of ecological networks, and should seek to include:

- habitat restoration, re-creation and expansion;
- improved links between existing sites;
- buffering of existing important sites;
- new biodiversity features within development; and
- securing management for long term enhancement

The [Planning Practice Guidance \(PPG\)](#) provides guidance on the application of net gain and Institute of Ecology and Environmental Management, together with CIRIA and the Institute of Environmental Management and Assessment have published guidance on how to deliver net gain in practice. These can be downloaded [here](#).

For any BNG proposals which affecting main rivers, the applicant should consult us at the earliest opportunity.

## **Additional ecology comments**

While our Defra partner, Natural England, is the statutory consultee for advising on impacts on protected species, we wish to highlight the following as part of our wider biodiversity remit:

- Great crested newts (*Triturus cristatus*)
  - 8.5.15 Species – The desk study identifies records of great crested newts (GCN). The Environment Agency has been working with partner organisations over a number of years to conserve and promote recovery of a fragmented metapopulation of GCN within the study area. Work has included survey, and the restoration, creation and enhancement of a



network of ponds

- There are confirmed populations present around Old Ea Beck, within Thorpe Marsh Nature Reserve, Thorpe Marsh ash fields, near the confluence of Ea Beck and River Don (left bank), downstream of Fishlake, River Don (left bank), and in the Topham area, River Went (right bank). We can provide further details to the applicant on request.
- It is possible that other suitable habitat in the vicinity also supports local GCN populations. However, all indications are that the metapopulation is small and fragmented, and therefore vulnerable. Development in this vicinity presents further risks to the vulnerable populations through loss of suitable habitat, new barriers to movement, and the 'sterilisation' of future development of potential habitat corridors.
- Table 8.5: Scope of Proposed Ecology Surveys states the intention to apply for a District Level Licence, which would result in GCN being scoped out of the detailed assessment in the Environmental Statement. However, this approach would not necessarily mitigate the impacts on the local population of loss of breeding habitat and associated terrestrial habitat. The development risks weakening the existing local metapopulation, risks further fragmentation of habitat, and reduces the opportunities for reconnecting the existing populations.
- Topham area
  - The area in the vicinity of Topham Farm is potentially ecologically-sensitive. There are known populations of further protected species present in addition to the above, and a confirmed nesting attempt by Marsh Warbler (*Acrocephalus palustris*), a UK Red list species, in 2023. Due to the proximity to the proposed solar farm, ecological impacts at Topham should be carefully considered.

As such, we would recommend the applicant has further discussions with Natural England in regard to the above and mitigating the impacts of the development.

## **Chapter 9 – Water Environment**

**9.4** (Consultation) We note that a Freedom of Information Request has been submitted to the Environment Agency to obtain baseline information to inform the water environment assessment. We also note that consultation with the Environment Agency is intended as the scheme design progresses, which is welcomed.

**9.5.59** (Water Resources) We note that information on pollution incidents, water abstractions and discharges will be obtained from the Environment Agency and presented in the Environmental Statement (ES).

**9.6.11** (Operations and Maintenance) We note the intention to prepare a full water environment impact assessment, to be supported by an FRA, a surface water drainage strategy and a Water Framework Directive (WFD) assessment. Mitigation measures applicable to the scheme's operation will be included in a Framework Operational Environmental Management Plan (OEMP) prepared as part of the Development Consent Order (DCO) application.

The WFD compliance assessment must assess any potential impacts on the watercourses and demonstrate that the required enhancements will be delivered. Any development that has the potential to cause deterioration in classification under WFD or that precludes the recommended actions from being delivered in the future is likely to be considered unacceptable to us. You will find actions associated with the WFD by

searching for your watercourse on the [EA Catchment Data Explorer](#). For further guidance on undertaking a WFD compliance assessment, please refer to [GOV.UK](#).

**9.9 (Summary of Elements Scoped In and Scoped Out)** We agree with the elements scoped into the water environment assessment: groundwater; hydromorphology; surface water; flood risk. Please see the following specific comments relevant to groundwater, ground conditions, waste, and flood risk:

## **Groundwater**

Due to the large scale of the proposed scheme the site is underlain by several different geologies. The superficial deposits include the Hemingbrough Glaciolacustrine Formation, Brighton Sand Formation, River Terrace Deposits, Alluvium, Till and Head deposits and Alluvium. Bedrock beneath the superficial deposits is largely the Sherwood Sandstone or Chester Sandstone Formation with some areas of Roxby Formation. The sandstones are classified as Principal aquifers, while the Roxby Formation is a Secondary B aquifer. The alluvium is classified as a Secondary A, as are the permeable layers of the Brighton Sand Formation and the Head deposits in the southeast of the study area are designated as a Secondary (undifferentiated) aquifer. The remaining superficial deposits are classified as unproductive aquifers.

The site is therefore of mixed vulnerability, with the most vulnerable areas being where it just crosses into two groundwater Source Protection Zone 3 areas, one in the south and one in the north. Groundwater is anticipated to be relatively shallow in the proposed development area.

Other parts of the report make reference to activities that could impact on groundwater.

- **2.4.3** provides detail about the construction of the scheme. This includes “*appropriate construction drainage with pumping where necessary.*” Dewatering may require an abstraction licence and information about this is provided at the end of the response.
- **2.3.42** states that horizontal directional drilling may be used to navigate beneath water courses. This work could involve the use of drilling muds and their use may require risk assessment to ensure they do not pose a risk to controlled waters. Table 9-9 confirms that risks to groundwater from construction, operation and decommissioning will be scoped into the EIA.
- **9.6.5** states that, “*the nature of the Scheme means there would be limited physical disturbance of aquifers and groundwater, limited to driving the solar PV module mounting structures to a depth of 1-2 m, with tracker systems having a pile of 3 to 5 m depth, and shallow cable trenches for cable routes. The need for piling or deep HDD has yet to be determined but will be confirmed in the ES.*”

We therefore assume that the EIA will include potential impacts from directional drilling and any foundation works that may be required and any other elements of the construction that may have the potential to cause or mobilise contamination.

Based on the information submitted, and provided the above comments are considered, we are satisfied with what has been scoped in and out in terms of groundwater protection. The proposed assessment methodology is acceptable.

## **14.4 Ground Conditions**

Although Ground Conditions have been scoped out of the EIA, section 14.4.9 states that a preliminary risk assessment (PRA) report will be prepared for the scheme and included in the ES. Any recommendations resulting from the PRA will be incorporated in

the CEMP. The assessment will be complied in line with our 'Land Contamination Risk Management' guidance. We welcome this approach.

**14.8.17 (Waste)** It is stated that, *“There are no allocated / safeguarded waste and mineral sites, or historic and permitted landfills within the Site boundary.”*

Thorpe Marsh Power Station (ref. EPR CP3091SC) is a permitted landfill that lies within the cable route corridor area. The site was permitted largely for the disposal of pulverised fly ash from Thorpe Marsh Power Station. Waste deposition took place during the power stations operational life between 1964 and 1994. The site is located at Marsh Lane, Barnby Dun, Doncaster, DN3 1ET (SE606096).

We are aware of a number of monitoring boreholes which are sampled regularly for groundwater quality purposes, within the landfill site boundary. It is important that these boreholes are not disturbed or destroyed by any development of the site. Discussion of this should be included in the EIA.

### **Flood risk**

The site falls within Flood Zone 3a (high probability of flooding) and Flood Zone 2 (medium probability of flooding), on the Environment Agency Flood Map for Planning (rivers and sea), and several statutory main rivers and ordinary watercourses are located adjacent to and within the site. We are therefore pleased to see that flood risk will be considered further within the ES

The flood risk vulnerability classification of the proposal is 'essential infrastructure', as defined in [Annex 3](#) of the National Planning Policy Framework (NPPF). The Sequential and Exception Tests will therefore be required to be passed, as outlined in NPS EN-1 and National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG). In line with the [footnotes to Table 2](#) of the PPG, 'essential infrastructure' located within Flood Zone 3a should be designed and constructed to remain operational and safe in times of flood.

The Scoping Report does not have substantial information in relation to flood risk. However, we note the intention to submit a flood risk assessment (FRA) as part of the DCO application. The FRA must demonstrate that the proposal will remain operational during the lifetime of the development and that appropriate mitigation measures/flood resilient construction techniques have been incorporated into the development for its lifetime, which has been given as 40 years.

An FRA should be submitted that includes, but is not limited to, the following points:

- The solar farm and supporting infrastructure should not increase risk to others and compensatory flood storage may be required to account for any loss of floodplain.
- We recommend that any critical electrical equipment is set above the predicted flood levels.
- We would advise that the Battery Energy Storage Systems are located in areas of the site with the lowest risk of flooding, where possible.
- If buildings will be required, finished floor levels should be raised as high as practicable above ground levels and ensure that occupants are kept safe in a flood event.
- Flood risk impacts of decommissioning and the subsequent state of the floodplain.

We note that the applicant intends to produce a Framework Decommissioning Environmental Management Plan (DEMP), that should be informed by the FRA. We will require sight of the DEMP to enable us to consider the flood risk impacts and how the floodplain will be returned to its natural state thereafter. Early engagement on this issue would be advisable.

We note that the applicant has requested flood data from us to inform their FRA. However if the applicant intends to undertake any of their own hydraulic modelling (e.g. to take into account [correct climate change allowances](#)) we should be contacted at the earliest opportunity to discuss any modelling requirements and to avoid any issues which may present a risk to the project.

The indicative cable route appears to pass through/under, or near, several flood defence assets. Details of how these defences will be protected should be provided as part of the FRA, and we would expect early prior engagement from the applicant to discuss such proposals in more detail. Such proposals may be subject to flood risk activity permit (FRAP) requirements.

The Lead Local Flood Authority (LLFA), Doncaster Council, should be consulted in relation to impacts on ordinary watercourses, local flood risk issues, groundwater flooding and management of surface water run-off.

### **Main river buffer zone**

Development adjacent to main rivers should be designed with a naturalised buffer zone of at least 8 metres from the bank top/retaining wall or landward toe of any defences to protect and enhance the conservation value of the watercourse and ensure access for flood defence maintenance. This increases to 16 metres for a tidal main river, and the requirement for a buffer zone also applies to culverted watercourses

The buffer zone should be designed and managed for the benefit of biodiversity and should be undisturbed by development with no fencing, footpaths or other structures. It should not include formal landscaping, and should include the planting of locally appropriate native species. Mowing regimes should be low intensity, allowing plants to flower. Light spill within the buffer zone from external artificial lights should be kept at an absolute minimum and be located and directed so that light levels of 0-2 lux are maintained. The buffer zone will help provide more space for flood waters, provide improved habitat for local biodiversity and allows access for any maintenance requirements.

### **River naturalisation and culverted watercourses**

There may be opportunities to remove existing ordinary watercourse culverts as part of the proposal. De-culverting and river restoration will provide environmental improvements and contribute to the delivery of BNG, will help deliver [Water Framework Directive \(WFD\)](#) improvements and will also reduce the risk of flooding. We strongly recommend you consider all options to remove any culverted sections of watercourses as part of your development proposals, restoring watercourses to their natural state. If de-culverting is not possible we would expect to see adequate evidence for this. Works that affect the ordinary watercourses may require the prior consent of the Lead Local Flood Authority (LLFA), which is Doncaster City Council.

## **Environmental Permitting Regulations**

There are a number of additional permits or consents that the applicant may require under the Environmental Permitting Regulations (EPR), and these are discussed below:

### **Flood Risk Activity Permit**

The proposal has the potential to impact statutory main rivers. The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)
- on or within 16 metres of a sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in the floodplain of a main river if the activity could affect flood flow or storage and potential impacts are not controlled by a planning permission

For further guidance please visit <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits> or contact our National Customer Contact Centre on 03708 506 506. We advise that the applicant consults with us at the earliest opportunity where the proposal

Where a Flood Risk Activity Permit (FRAP) is required, it is unlikely that our consent will be granted for works that do not allow access for maintenance or repair purpose or that have an unacceptable impact on flood risk or the natural environment. The permanent retention of a continuous unobstructed area is an essential requirement for emergency access to the river for repairs to the bank and for future maintenance and/or improvement works.

Where development or works are proposed that would require a FRAP, it is recommended that detailed pre-application planning advice is obtained from us any concerns can be resolved up front.

There is no mention at this stage regarding whether the applicant will seek to disapply The Environmental Permitting Regulations in regard to flood risk activities. Whilst disapplication is common practice in DCO proceedings, we still require to be formally notified of this intention. If disapplication is formally notified to us, we still require discussions with the applicant around the proposals and will secure our interests by way of approval of plans through Protected Provisions. There is no guarantee that we will agree to disapply EPR.

### **Dewatering / Abstraction**

If dewatering is required, the development may require an environmental permit if it doesn't meet the exemption in The Water Abstraction and Impounding (Exemptions) Regulations 2017 Section 5: Small scale dewatering in the course of building or engineering works.

[Temporary dewatering from excavations to surface water: RPS 261 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/flood-risk-activities-environmental-permits)

If the development doesn't meet the exemption and requires a full abstraction licence the Applicant should be aware that some aquifer units may be closed for new

consumptive abstractions in this area. More information can be found here, [Don and Rother abstraction licensing strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/don-and-rother-abstraction-licensing-strategy)

Please note that the typical timescale to process a licence application is 9-12 months. The applicant may wish to consider whether a scheme-wide dewatering application rather than individual applications would be beneficial. We suggest talking to our National Permitting Service early in the project planning.

## **Discharge of water**

The applicant may also need to consider discharge of groundwater, especially if it is contaminated. If the developer identifies the need to discharge to surface water during construction, then a permit may also be required. More information can be found here: <https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits>

A permit does not mean they can deteriorate the watercourse and may not be granted. Only clean, uncontaminated water should be discharged to surface water or groundwater and any permits need to be planned for well in advance of construction.

Discharging run-off to watercourses has the potential to transport pollutants such as herbicides/ pesticides/ nitrates/ phosphates and silt and should be a last resort with mitigation in place to reduce the impact.

Additional guidance in relation to discharging and permits is available at the following links:

- <https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits>
- <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

The use of drilling muds for the directional drilling may require a groundwater activity permit unless the 'de minimis' exemption applies. Early discussion about this is also recommended.

## **Waste management**

### **Waste on site**

Excavated materials that are recovered via a treatment operation can be re-used on-site under the CL:AIRE Definition of Waste: Development Industry Code of Practice. This voluntary Code of Practice provides a framework for determining whether or not excavated material arising from site during remediation and/or land development works are waste.

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on site operations are clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

The Environment Agency recommends that developers should refer to our:

- Position statement on the Definition of Waste: Development Industry Code of Practice and;
- website at <https://www.gov.uk/government/organisations/environment-agency> for further guidance

## Waste to be taken off site

Contaminated soil that is, or must be disposed of, is waste. Therefore, its handling, transport, treatment and disposal is subject to waste management legislation, which includes:

- Duty of Care Regulations 1991
- Hazardous Waste (England and Wales) Regulations 2005
- Environmental Permitting (England and Wales) Regulations 2010
- The Waste (England and Wales) Regulations 2011

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically in line with British Standards BS EN 14899:2005 'Characterisation of Waste - Sampling of Waste Materials - Framework for the Preparation and Application of a Sampling Plan' and that the permitting status of any proposed treatment or disposal activity is clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

If the total quantity of waste material to be produced at or taken off site is hazardous waste and is 500kg or greater in any 12 month period the developer will need to register with us as a hazardous waste producer. Refer to our website at [www.gov.uk/government/organisations/environment-agency](http://www.gov.uk/government/organisations/environment-agency) for more information.

## Air Quality

Where development involves the use of any non-road going mobile machinery with a net rated power of 37kW and up to 560kW, that is used during site preparation, construction, demolition, and/ or operation, at that site, we strongly recommend that the machinery used shall meet or exceed the latest emissions standards set out in [Regulation \(EU\) 2016/1628](#) (as amended).

Use of low emission technology will improve or maintain air quality and support LPAs and developers in improving and maintaining local air quality standards and support their net zero objectives.

We also advise, the item(s) of machinery must also be registered (where a register is available) for inspection by the appropriate Competent Authority, which is usually the local authority.

The requirement to include this may already be required by a policy in the local plan or strategic spatial strategy document. The Environment Agency can also require this same standard to be applied to sites which it regulates. To avoid dual regulation, this advice should only be applied to the site preparation, construction, and demolition phases at sites that may require an environmental permit.

Non-Road Mobile Machinery includes items of plant such as bucket loaders, forklift trucks, excavators, 360 grab, mobile cranes, machine lifts, generators, static pumps, piling rigs etc. The Applicant should be able to state or confirm the use of such machinery in their application.

## Environment Agency Land

There are some areas of land, specifically around main rivers, which are land owned by the Environment Agency. Due to the large scoping area, it is unclear at this stage

whether this land will be affected by the proposals, but we would welcome ongoing discussions with the applicant about this.

---

### **Further Environment Agency advice – note the applicant**

Should the applicant wish us to review any technical documents or want further advice to address the environmental issues raised, this would fall under our charged for planning advice service outside of statutory consultation.

Further engagement will provide the applicant with the opportunity to discuss and gain our views on the proposals, and resolve an issues which may present a risk to the delivery of the project, for example. It should also result in a better quality and more environmentally sensitive development.

As part of our charged for service we will provide a dedicated project manager to act as a single point of contact to help resolve any problems. We currently charge £100 per hour, plus VAT. We will provide you with an estimated cost for any further discussions or review of documents. The terms and conditions of our charged for service are available [here](#).

We will be unable to offer this service where we consider that a request is unreasonable, goes beyond what we can advise on through our planning remit or where other operational activities and issues prevent us from doing so.

If you would like more information on our planning advice service, including a cost estimate, please contact us at the email address below.

---

We trust this advice is useful.

If you require anything further, please do not hesitate to contact us at the email address below.

Yours sincerely

**Mr Alexander Hazel**  
**Planning Specialist – National Infrastructure Team**

E-mail: [NITeam@environment-agency.gov.uk](mailto:NITeam@environment-agency.gov.uk)



(by email only)  
The Planning Inspectorate

Our Ref: D1796  
Your Ref: EN010152

Date: 21 June 2023

For the attention of Jack Patten

Dear Mr Patten,

**Proposal: Fenwick Solar farm, Fenwick, Doncaster**

Thank you for your EIA scoping opinion request for any comments dated 12 June 2023 sent to us via Doncaster council (Ref: 23/01167/CON ) for the above proposed development at Fenwick Doncaster.

**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11 -**

- HSE's response is limited to our role in the land use planning system on the control of major industrial hazards involving dangerous substances.
- HSE is not responding in our regulatory role in the health and safety system

1. The proposed development, does not appear to be of a type that would store or process hazardous substances in quantities relevant to the potential for industrial major accidents with respect to The Planning (Hazardous Substances) Regulations 2015.

2. The development is not located within a safeguarding zone of an Explosives site licensed under the Explosives regulations 2014 or the Dangerous goods in harbour area regulations 2016.

3. The development is not located within HSE's land-use-planning consultation zones for major-accident-hazard pipelines and hazardous substances consented sites (licensed explosives sites are covered in the previous paragraph).

Chemicals, Explosives and  
Microbiological Hazard  
Division

**Berdine Clews**

Statutory and Commercial  
Land Use Planning Advice  
HSE, Harpur Hill,  
Buxton,  
Derbyshire,  
SK17 9JN

lupenquiries@hse.gov.uk

<http://www.hse.gov.uk/>

Head of Team  
Stuart Reston

**Due to the above 3 points, there appears to be no need to consult HSE.**

4. If there is a major accident hazard establishment with no HSE consultation zones, in the vicinity of the proposed development, and you are concerned that the proposed development might increase the risk or consequences of a major accident at the existing establishment then please directly consult the operator of the establishment, as appropriate.

5. General health and safety at work

HSE realises that Environmental Risk Assessments are not expected to include general health and safety at work however we take this opportunity to point out that it may be beneficial for employer(s) to undertake a risk assessment as early as possible to satisfy themselves that their design and operation will meet requirements of relevant health and safety legislation as the project progresses.

Yours sincerely

**Berdine Clews**

**Statutory and Commercial Land Use Planning Advice**

## Patten, Jack

---

**From:** Owen, Pete [REDACTED] >  
**Sent:** 30 June 2023 14:15  
**To:** Fenwick Solar Farm  
**Subject:** Fenwick Solar - Scoping Opinion

Dear Sir or Madame

Thank for you consulting Historic England on the Fenwick Solar Farm EIA Scoping Report.

I wish to make the following comment regarding the Scoping Report:

Paragraph 7.7.3 should state that an assessment of the potential impact of the proposed development on the value of heritage assets through changes in their setting will be undertaken using the methodology outlined in Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets. Historic England (2nd edition, 2017) (Ref 57).

Regards

Pete Owen  
Inspector of Ancient Monuments  
North Region  
Historic England  
Direct Dial: [REDACTED]      Mobile: [REDACTED]

Work with us to champion heritage and improve lives. Read our Future Strategy and get involved at [historicengland.org.uk/strategy](https://historicengland.org.uk/strategy).

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## Complex Land Rights

Ellie Laycock  
Development Liaison Officer  
UK Land and Property

Tel: +44 (0) [REDACTED]

SUBMITTED ELECTRONICALLY:

fenwicksolar@planninginspectorate.gov.uk

27 June 2023

Dear Sir/Madam

### **APPLICATION BY FENWICK SOLAR PROJECT LTD (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE FENWICK SOLAR FARM (THE PROPOSED DEVELOPMENT)**

#### **SCOPING CONSULTATION RESPONSE**

I refer to your letter dated 2<sup>nd</sup> June 2023 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET). Having reviewed the scoping report, I would like to make the following comments regarding NGET infrastructure within or in close proximity to the current red line boundary.

NGET has high voltage electricity overhead transmission lines, underground cables and a high voltage substation within the scoping area. The overhead lines, underground cables and substation form an essential part of the electricity transmission network in England and Wales.

#### Substation

- Thorpe Marsh 275kV Substation
- Thorpe Marsh 400kV Substation
- Associated overhead and underground apparatus including cables

#### Overhead Lines

ZZG 275kV OHL	Thorpe Marsh – West Melton 1 Thorpe Marsh – West Melton 2
ZZH 400kV OHL	Eggborough – Thorpe Marsh
ZZI 400kV OHL	Drax – Keadby – Thorpe Marsh
4ZH 400kV OHL	Brinsworth – Thorpe Marsh 1 Brinsworth – Thorpe Marsh 2
4VH 400kV OHL	Drax – Keadby – Thorpe Marsh

#### Cable Apparatu

- Thorpe Marsh – West Melton 1
- Thorpe Marsh – West Melton 2

I enclose two plans showing the location of NGET's apparatus in the scoping area.

## Specific Comments – Electricity Infrastructure:

- NGET's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. NGET recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for “overhead line clearances Issue 3 (2004)”.
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's ([www.hse.gov.uk](http://www.hse.gov.uk)) Guidance Note GS 6 “Avoidance of Danger from Overhead Electric Lines” and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum “sag” and “swing” and overhead line profile (maximum “sag” and “swing”) drawings should be obtained using the contact details above.
- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or “pillars of support” of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (“pillar of support”) drawings can be obtained using the contact details above.
- NGET high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide NGET full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with NGET prior to any works taking place.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

To download a copy of the HSE Guidance HS(G)47, please use the following link:  
<http://www.hse.gov.uk/pubns/books/hsg47.htm>

## **Further Advice**

**We would request that the potential impact of the proposed scheme on NGET's existing assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.**

**Where any diversion of apparatus may be required to facilitate a scheme, NGET is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by NGET. Further information relating to this can be obtained by contacting the email address below.**

**Where the promoter intends to acquire land, extinguish rights, or interfere with any of NGET apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.**

NGET requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: [box.landandacquisitions@nationalgrid.com](mailto:box.landandacquisitions@nationalgrid.com)

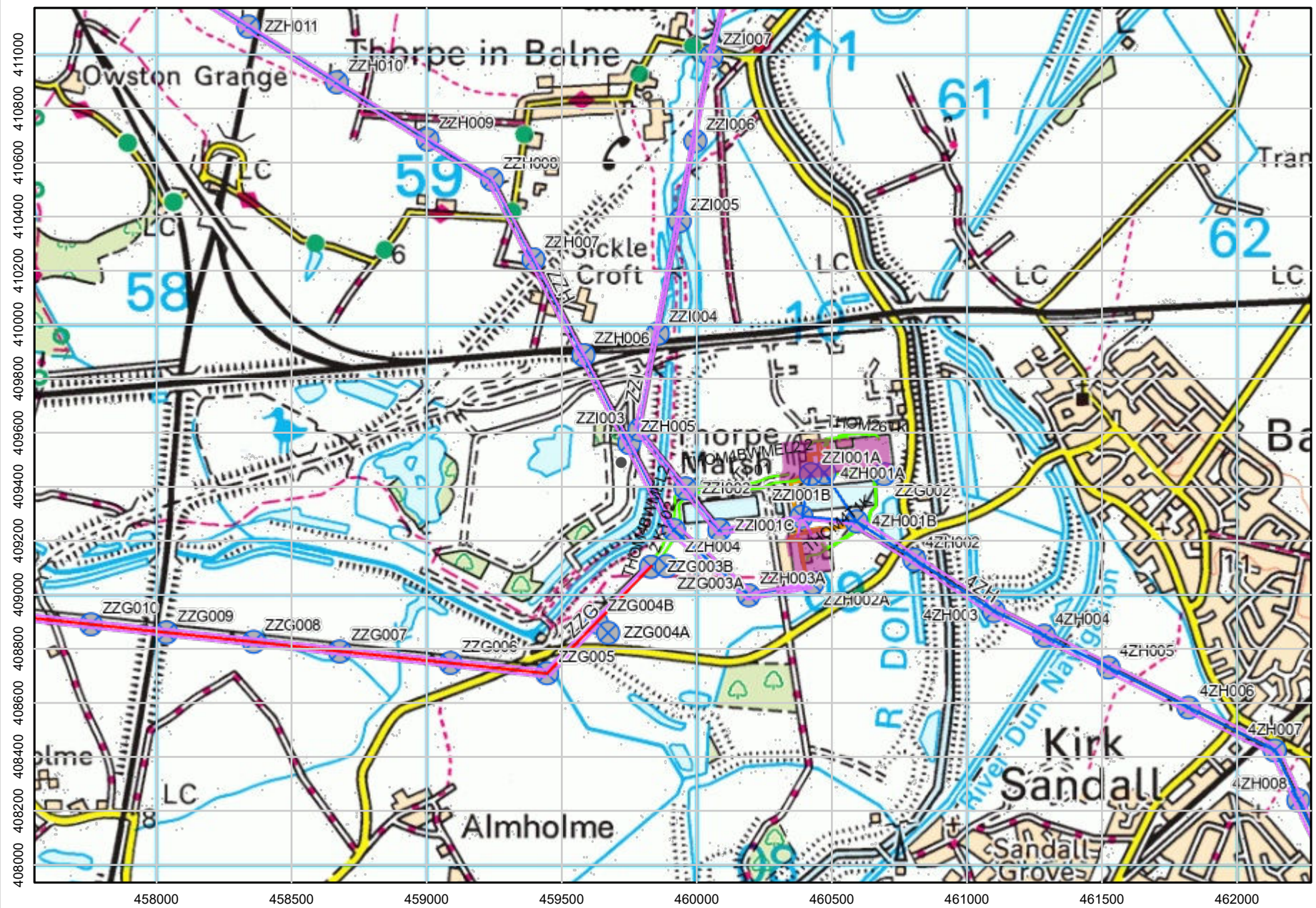
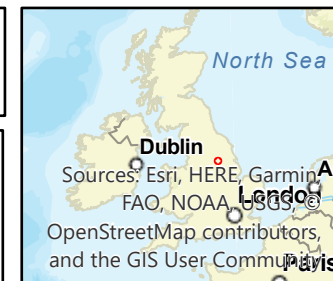
I hope the above information is useful. If you require any further information, please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully



**Ellie Laycock**  
**Development Liaison Officer, Complex Land Rights**

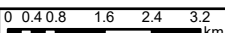


**Legend**

- Fibre Cable
  - Fibre Cable Commissioned
- Buried Cable
  - Buried Cable Commissioned
- Towers
  - Towers Commissioned
- OHL 275Kv
  - OHL 275Kv Commissioned
- OHL 400Kv
  - OHL 400Kv Commissioned
- OHL Circuits
  - OHL Circuits Commissioned
  - OHL Circuits Decommission
  - OHL Circuits Group
- Substations
  - Substations Commissioned

**Notes**

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Note: Any sketches on the map are approximate and not captured to any particular level of precision.



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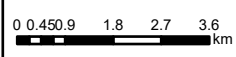
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**Legend**

- Fibre Cable
  - Fibre Cable
  - Commissioned
- Buried Cable
  - Buried Cable
  - Commissioned
- Towers
  - ⊗ Towers
  - ⊗ Commissioned
- OHL 275kV
  - OHL 275kV
  - Commissioned
- OHL 400kV
  - OHL 400kV
  - Commissioned
- Substations
  - Substations
  - Commissioned

**Notes**



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Scale: 1:50,000

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## Patten, Jack

---

**From:** NATS Safeguarding <NATSSafeguarding@nats.co.uk>  
**Sent:** 02 June 2023 11:45  
**To:** Fenwick Solar Farm  
**Subject:** RE: EN010152 - Fenwick Solar Farm - EIA Scoping Notification and Consultation [SG35470]

**Categories:** EST

Our Ref: SG35470

Dear Sir/Madam

NATS operates no infrastructure within 10km of the site in question. Accordingly it anticipates no impact from the proposal and has no objections to the Application.

Yours faithfully

**NATS**

NATS Safeguarding

E: [natssafeguarding@nats.co.uk](mailto:natssafeguarding@nats.co.uk)

4000 Parkway, Whiteley,  
Fareham, Hants PO15 7FL  
[www.nats.co.uk](http://www.nats.co.uk)



Date: 28 June 2023  
Our ref: 436367  
Your ref: EN010152



The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN  
[fenwicksolar@planninginspectorate.gov.uk](mailto:fenwicksolar@planninginspectorate.gov.uk)

Consultations  
Hornbeam House  
Crewe Business Park  
Electra Way  
Crewe  
Cheshire  
CW1 6GJ

T 0300 060 900

**BY EMAIL ONLY**

Dear Sir/Madam

**Environmental Impact Assessment Scoping consultation under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulation 11**

**Proposal:** Fenwick Solar Farm

**Location:** Land off Lawn Lane, to the South of the River Went, Fenwick, Doncaster

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 02 June 2023, received on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

A robust assessment of environmental impacts and opportunities, based on relevant and up to date environmental information, should be undertaken prior to an application for a Development Consent Order. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development.

Natural England notes that it has not had any previous engagement from the applicant on the project.

For any further advice on this consultation please contact [consultations@naturalengland.org.uk](mailto:consultations@naturalengland.org.uk).

Yours sincerely

Alice Megaw

Yorkshire and Northern Lincolnshire Area Team

## **Annex A – Natural England Advice on EIA Scoping**

### **1. General Principles**

- 1.1 Regulation 11 of the Infrastructure Planning Regulations 2017 - (The EIA Regulations) sets out the information that should be included in an Environmental Statement (ES) to assess impacts on the natural environment. This includes:
- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
  - Appropriately scaled and referenced plans which clearly show the information and features associated with the development
  - An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
  - A description of the aspects and matters requested to be scoped out of further assessment with adequate justification provided<sup>1</sup>.
  - Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
  - A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation, cultural heritage and landscape and the interrelationship between the above factors
  - A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
  - A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
  - An outline of the structure of the proposed ES

### **2. Cumulative and in-combination effects**

- 2.1 It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the ‘in combination’ effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.
- 2.2 The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

---

<sup>1</sup> National Infrastructure Planning ([planninginsepectorate.gov.uk](http://planninginsepectorate.gov.uk)) Insert 2 – information to be provided with a scoping request, Advice Note Seven, Environmental Impact Assessment, Process, Preliminary Environmental Information and Environmental Statements

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e., projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

### **3. Biodiversity and Geodiversity**

- 3.1 The assessment will need to include potential impacts of the proposal upon sites and features of nature conservation interest as well as opportunities for nature recovery through biodiversity net gain (BNG). There might also be strategic approaches to take into account.
- 3.2 Ecological Impact Assessment (EclA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. Guidelines have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).
- 3.3 For additional information relating to Solar Parks please refer to the Technical Information Note at the link below, which provides a summary of advice about their siting, their potential impacts and mitigation requirements for the safeguarding of the natural environment. [Solar parks: maximising environmental benefits \(TIN101\)](#).
- 3.4 For additional information regarding the impact of solar farms on birds, bats and general ecology, please refer to the report below, which provides an evidence review of relevant scientific and grey literature. [Evidence review of the impact of solar farms on birds, bats and general ecology 2016 - NEER012 \(naturalengland.org.uk\)](#)

### **4. International and European sites**

- 4.1 The development site is within or may impact on the following European/internationally designated nature conservation sites:
  - Thorne & Hatfield Moors Special Protection Area (SPA)
  - Thorne Moor Special Area of Conservation (SAC)
  - Hatfield Moor Special Area of Conservation (SAC)
  - Humber Estuary Special Area of Conservation (SAC)
  - Humber Estuary Ramsar
- 4.2 The ES should thoroughly assess the potential for the proposal to affect internationally designated sites of nature conservation importance / European sites, including marine sites where relevant. This includes Special Protection Areas (SPA), Special Areas of Conservation (SAC), listed Ramsar sites, candidate SAC and proposed SPA.
- 4.3 Article 6 (3) of the Habitats Directive requires an appropriate assessment where a plan or project is likely to have a significant effect upon a European Site, either individually or in combination with other plans or projects.
- 4.4 For advice on potential air quality impacts on the relevant internationally designated

sites, see section 12 below.

4.5 We welcome the commitment to complete wintering and passage bird surveys. Natural England recommend amended vantage point (VP) surveys (principally following Nature Scot methodologies<sup>1</sup>) are undertaken of the site and surrounding fields to provide an overview of bird usage. Please see Annex B for further detailed advice on VP surveys.

4.6 We advise that the wintering/passage bird survey results should be considered in the context of the relevant internationally designated sites and may require the Lower Derwent Valley SPA and/or the Humber Estuary SPA to be scoped into further assessment, depending on the bird species recorded. Please see Annex C for guidance on the Humber Estuary Special Protection Area non-breeding waterbird assemblage.

**Table 1: Potential risk to International designated sites:** the development is within or may impact on the following European/Internationally designated site(s)

Site name(s) (with link to Conservation Objectives and Citation)	Advice on potential impact pathways
<p>Thorne &amp; Hatfield Moors SPA</p> <p><a href="#">European Site Conservation Objectives for Thorne &amp; Hatfield Moors SPA - UK9005171 (naturalengland.org.uk)</a></p>	<p>To assist you in screening for the likelihood of significant effects on Thorne &amp; Hatfield Moors SPA, Natural England offers the following advice, based on the information provided:</p> <ul style="list-style-type: none"> <li>- the proposal is not directly connected with or necessary for the management of the European site</li> <li>- the proposal is unlikely to have a significant effect on Thorne &amp; Hatfield Moors SPA, either alone or in-combination with other plans and projects, and can therefore be screened out from any requirement for further appropriate assessment (excluding from potential air quality impacts).</li> </ul> <p>When recording your Habitats Regulations Assessment (HRA) we recommend you refer to the following information to justify your conclusions regarding the likelihood of significant effects:</p> <ul style="list-style-type: none"> <li>- Due to the distance between the proposed site and Thorne &amp; Hatfield Moors SPA and the nature of the proposed development, direct impacts on the designated site are not anticipated.</li> <li>- Thorne &amp; Hatfield Moors SPA is designated for the presence of breeding nightjar. Nightjar are known to forage up to 5km from their breeding habitat on Thorne &amp; Hatfield Moors SPA. As the proposed development is located over 8km from the designated site, it is unlikely that the habitats within the proposed site represent functionally linked land to the SPA.</li> <li>- There is no hydrological connection between the proposed site and Thorne and Hatfield Moors SPA</li> </ul> <p>For advice on assessing potential air quality impacts during</p>

<sup>1</sup>Scottish Natural Heritage: Recommended bird survey methods to inform impact assessment of onshore wind farms (March 2017- Version 2).

	<p>construction, see section 12 below.</p>
<p>Thorne Moor SAC  <a href="#">European Site Conservation Objectives for Thorne Moor SAC - UK0012915</a>  <a href="http://naturalengland.org.uk">naturalengland.org.uk</a>  )</p>	<p>To assist you in screening for the likelihood of significant effects on Thorne Moor SAC, Natural England offers the following advice, based on the information provided:</p> <ul style="list-style-type: none"> <li>- the proposal is not directly connected with or necessary for the management of the European site</li> <li>- the proposal is unlikely to have a significant effect on Thorne Moor SAC, either alone or in-combination with other plans and projects, and can therefore be screened out from any requirement for further appropriate assessment (excluding from potential air quality impacts).</li> </ul> <p>When recording your HRA we recommend you refer to the following information to justify your conclusions regarding the likelihood of significant effects:</p> <ul style="list-style-type: none"> <li>- Due to the nature of the proposed development and the distance between the proposed site and Thorne Moor SAC, direct impacts on the designated site are not anticipated.</li> <li>- There is no hydrological connection between the proposed site and Thorne Moor SAC.</li> </ul> <p>For advice on assessing potential air quality impacts during construction, see section 12 below.</p>
<p>Hatfield Moor SAC  <a href="#">European Site Conservation Objectives for Hatfield Moor SAC - UK0030166</a>  <a href="http://naturalengland.org.uk">naturalengland.org.uk</a>  )</p>	<p>To assist you in screening for the likelihood of significant effects on Hatfield Moor SAC, Natural England offers the following advice, based on the information provided:</p> <ul style="list-style-type: none"> <li>- the proposal is not directly connected with or necessary for the management of the European site</li> <li>- the proposal is unlikely to have a significant effect on Hatfield Moor SAC, either alone or in-combination with other plans and projects, and can therefore be screened out from any requirement for further appropriate assessment (excluding from potential air quality impacts).</li> </ul> <p>When recording your HRA we recommend you refer to the following information to justify your conclusions regarding the likelihood of significant effects:</p> <ul style="list-style-type: none"> <li>- Due to the nature of the proposed development and the distance between the proposed site and Hatfield Moor SAC, direct impacts on the designated site are not anticipated.</li> <li>- There is no hydrological connection between the proposed site and Hatfield Moor SAC.</li> </ul> <p>For advice on assessing potential air quality impacts during</p>

	construction, see section 12 below.
Humber Estuary SAC <a href="#">European Site Conservation Objectives for Humber Estuary SAC - UK00300170</a> <a href="http://naturalengland.org.uk">naturalengland.org.uk</a>	Natural England welcomes the commitment to further assess potential habitat suitability of the relevant waterways for river lamprey and sea lamprey. We advise that the assessment of potential impacts on Humber Estuary river and sea lamprey migration routes should consider potential water quality impacts during construction and operation, in addition to potential mortality and habitat fragmentation. The assessment should be informed by more detailed information regarding the proposed grid connection corridor and waterway crossing points.  For advice on assessing potential air quality impacts during construction, see section 12 below.
Humber Estuary Ramsar	See above advice for Humber Estuary SAC regarding river lamprey and sea lamprey.

#### 4. Nationally designated sites - Sites of Special Scientific Interest

4.1 Sites of Special Scientific Interest are protected under the Wildlife and Countryside Act 1981 (as amended). Further information on the SSSI and its special interest features can be found at [www.magic.gov](http://www.magic.gov).

4.2 The development site is within or may impact the following Site of Special Scientific Interests:

- Thorne, Crowle & Goole Moors SSSI
- Hatfield Moor SSSI
- Humber Estuary SSSI
- Shirley Pool SSSI
- Went Ings Meadows SSSI

4.3 The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within the SSSI and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects.

4.4 For advice on potential air quality impacts on the relevant nationally designated sites, see section 12 below.

4.5 We note that currently SSSIs within 2km of the development site have been scoped in for further assessment. However, if significant increases in vehicle movements are predicted to occur adjacent to SSSIs which are outside of this zone of influence then potential increases in pollutants NO<sub>x</sub>, NH<sub>3</sub> and nitrogen deposition should be assessed.

4.6 Our advice regarding the potential impact pathways upon Thorne, Crowle & Goole Moors SSSI and Hatfield Moor SSSI broadly coincides with those set out in paragraph 4.5

above above for their corresponding European sites. However, we highlight that Thorne, Crowle & Goole Moors SSSI and Hatfield Moor SSSI are designated for additional features; therefore, potential impacts on these features should also be considered in the relevant assessment.

- 4.7 Natural England advises that potential impacts on Shirley Pool SSSI and Went Ings Meadows SSSI should also be assessed in the Environmental Statement. In particular, potential water quality and water supply impacts should be considered.

## 5. Protected Species

- 5.1 The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species' populations in the wider area.
- 5.2 The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.
- 5.3 Natural England has adopted [standing advice](#) for protected species, which includes guidance on survey and mitigation measures. A separate protected species licence from Natural England or Defra may also be required. Applicants can make use of Natural England's charged [Pre Submission Screening Service](#) for a review of a draft wildlife licence application.

## 6. District Level Licensing for Great Crested Newts

- 6.1 Natural England notes that 3.98 of the 'Environmental Impact Assessment Scoping Report Appendix B: Preliminary Environmental Appraisal Report Solar PV Site' (dated June 2023) states *"Data will be used to inform a District Level Licensing (DLL) Application... If the DLL route is not pursued, a detailed assessment will be provided in the ES."* Natural England welcomes the commitment to use data to inform a DLL application and provide a detailed assessment in the ES if DLL is not possible.
- 6.2 Where strategic approaches such as district level licensing (DLL) for great crested newts (GCN) are used, a letter of no impediment (LONI) will not be required. Instead, the developer will need to provide evidence to the Examining Authority (ExA) on how and where this approach has been used in relation to the proposal, which must include a counter-signed Impact Assessment and Conservation Payment Certificate (IACPC) from Natural England, or a similar approval from an alternative DLL provider.
- 6.3 The DLL approach is underpinned by a strategic area assessment which includes the identification of risk zones, strategic opportunity area maps and a mechanism to ensure adequate compensation is provided regardless of the level of impact. In addition, Natural England (or an alternative DLL provider) will undertake an impact assessment, the outcome of which will be documented in the IACPC (or equivalent).



- 6.4 If no GCN surveys have been undertaken, Natural England's risk zone modelling may be relied upon. During the impact assessment, Natural England will inform the Applicant whether their scheme is within one of the amber risk zones and therefore whether the Proposed Development is likely to have a significant effect on GCN.
- 6.5 The IACPC will also provide additional detail including information on the Proposed Development's impact on GCN and the appropriate compensation required.
- 6.6 By demonstrating that the [DLL scheme for GCN](#) will be used, consideration of GCN in the ES can be restricted to cross-referring to the Natural England (or alternative provider) IACPC as a justification as to why significant effects on GCN populations as a result of the Proposed Development would be avoided.

## **7. Priority Habitats and Species**

- 7.1 Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found [here](#). Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.
- 7.2 Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to [download](#). Further information is also available [here](#).
- 7.3 An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.
- 7.4 The Environmental Statement should include details of:
- Any historical data for the site affected by the proposal (e.g. from previous surveys)
  - Additional surveys carried out as part of this proposal
  - The habitats and species present
  - The status of these habitats and species (e.g. whether priority species or habitat)
  - The direct and indirect effects of the development upon those habitats and species
  - Full details of any mitigation or compensation measures
  - Opportunities for biodiversity net gain or other environmental enhancement

## **8. Ancient Woodland, ancient and veteran trees**

- 8.1 The ES should assess the impacts of the proposal on any ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.
- 8.2 Ancient woodland and ancient and veteran trees are irreplaceable habitats of great importance for its wildlife, its history, and the contribution it makes to our diverse landscapes. Paragraph 180 of the NPPF sets out the highest level of protection for irreplaceable habitats and development should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists.

8.3 Natural England and the Forestry Commission have prepared [standing advice](#) on ancient woodland, ancient and veteran trees.

8.4 We note that ancient woodland has been identified within the study area and welcomes the recommendation to retain notable habitats, including ancient woodland.

## 9. Biodiversity net gain (BNG)

9.1 Natural England notes and supports the applicant's aspiration to deliver over 10% Biodiversity Net Gain (BNG) measured using Defra Metric 4.0 (or the most up to date metric at the time). However, given the scale of the project and a history of successful delivery of BNG for solar projects, Natural England encourages the applicant to commit to delivery of 10% BNG in all habitat types identified within the order limits, in accordance with the Environment Act 2021.

9.2 Natural England considers that major infrastructure developments should set the highest environmental standard. They should lead by example in showing how investment in sustainable infrastructure can better serve communities, including through the delivery of environmental goals, such as flood resilience, expanding natural habitats and contributing toward Net Zero greenhouse gas emissions. Nature-based solutions built into infrastructure schemes provide one means for setting in place the government's 25 Year Environment Plan.

9.3 Natural England recognises the high opportunity for the development to deliver BNG on-site and it is recommended that the following guidance is applied in order to achieve this:

- [Biodiversity Net Gain: Good Practice Principals for Development](#)
- [BS 8683: 2021 Process for designing and implementing Biodiversity Net Gain. Specification.](#)

9.4 In addition, the applicant should be aware of forthcoming guidance and legislation in relation to the Environment Act 2021, which may be released in the interim prior to submission of the DCO application.

9.5 In order to maximise nature recovery and target habitat enhancement where it will have the greatest local benefit it is recommended that locally identified opportunities should be acknowledged and incorporated into the design of BNG (both on and off-site). This should include any locally mapped ecological networks and priority habitats identified by City of Doncaster Council. In addition, Local Nature Recovery Strategies (LNRS) are a new mandatory system of spatial strategies for nature established by the Environment Act 2021 which will contribute to the national Nature Recovery Network (NRN). Work is currently underway to develop these strategies, which will identify strategic priorities for nature protection, recovery, and enhancement. Given the size, scale and opportunities afforded by the application is therefore recommended that engagement with relevant local planning authorities, responsible authorities and statutory consultees (including Natural England) is undertaken to align habitat enhancement through the development with any emerging plans and policies in relation to LNRS.

## 10. Connecting People with nature

10.1 The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 100 and there will be reference in the relevant National Policy Statement. It should assess

the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

10.2 Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

## 11. Soils and Agricultural Land Quality

11.1 Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line paragraphs 5.168, 5.167 and 5.179 of the NPS for National Networks. Further guidance is set out in the Natural England [Guide to assessing development proposals on agricultural land](#).

11.2 The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted.

11.3 This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see [www.magic.gov.uk](http://www.magic.gov.uk).

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

11.4 Further information is available in the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and](#) The British Society of Soil Science Guidance Note [Benefitting from Soil Management in Development and Construction](#).

## 12. Air Quality

12.1 Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NOx and SO2 against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

12.2 The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System ([www.apis.ac.uk](http://www.apis.ac.uk)).

### *Internationally and nationally designated sites*

13. Natural England advises that there is currently not enough information provided in the application to determine whether the likelihood of significant effects from air quality impacts during construction can be ruled out for the relevant internationally and nationally designated sites.

13.1 Natural England has produced guidance for public bodies to help assess the impacts of road traffic emissions to air quality capable of affecting European Sites. [Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations - NEA001](#)

13.2 Natural England welcomes the commitment to assess air quality impacts on designated sites associated with construction traffic. We note that 14.2.16 of the Environmental Impact Assessment Scoping Report (dated June 2023) states "*The anticipated number of vehicles that would be used during the construction and decommissioning phases of the scheme will be considered in the context of the guidance published by Environmental Protection UK (EPUK)/IAQM...*" However, we advise that when undertaking an assessment of the potential impacts on designated sites from traffic, Natural England guidance document [NEA001](#) should instead be referred to.

13.3 As detailed in guidance document [NEA001](#), designated sites within 200m of a road which will experience a significant increase in traffic movements should be assessed for impacts due to air pollution from traffic.

13.4 We note that currently SSSIs within 2km of the development site have been scoped

in for further assessment. However, if significant increases in vehicle movements are predicted to occur adjacent to SSSIs which are outside of this zone of influence then potential increases in pollutants NO<sub>x</sub>, NH<sub>3</sub> and nitrogen deposition should be assessed.

13.5 Ammonia emissions from road traffic could make a significant difference to nitrogen deposition close to roads. As traffic composition transitions toward more petrol and electric cars (i.e., fewer diesel cars on the road) – catalytic converters may aid in reducing NO<sub>x</sub> emissions but result in increased ammonia emissions – therefore consideration of the potential for impacts is needed (see [https://www.aqconsultants.co.uk/news/february-2020-\(1\)/ammonia-emissions-from-roads-for-assessing-impacts](https://www.aqconsultants.co.uk/news/february-2020-(1)/ammonia-emissions-from-roads-for-assessing-impacts))

13.6 There are currently two models which can be used to calculate the ammonia concentration and contribution to total N deposition from road sources. One of these models is publicly available and called CREAM ([Air Quality Consultants - News - Ammonia Emissions from Roads for Assessing Impacts on Nitrogen-Sensitive Habitats \(aqconsultants.co.uk\)](#)), and there is another produced by National Highways.

## 14. Climate Change

14.1 The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 174), which should be demonstrated through the ES.

## **Annex B: Vantage point surveys for wintering waders and wildfowl**

We recommend that 'amended' vantage point (VP) surveys (principally following Nature Scot methodologies<sup>2</sup>) are undertaken of the site and surrounding fields to provide an overview of bird usage. It would be useful to record birds in flight especially if the application may have the potential to affect bird flight lines. We would expect to see commentary of birds landing and taking off within and outwith the development site. The surveys should cover open arable land within the proposed site boundary, as well as land adjacent to the development that could be affected and provides the potential to support designated site species. The survey results should also provide some understanding of how the birds use the site as well as presence/absence. We recommend two wintering bird surveys per month between September to March inclusive.

As well as wintering waterbirds, the Humber Estuary provides safe feeding and roosting sites for species migrating between breeding sites in the arctic and subarctic, and wintering grounds in southern Europe and Africa. The Humber Estuary is therefore important for waterbirds on passage in spring and autumn as well as those species that stay all winter. Therefore, if there is potential for passage SPA bird species to be using the site, we recommend bird surveys during the autumn passage period (August to November inclusive) and spring passage period (March to Mid-May inclusive) to determine the population status of passage birds.

The surveys should cover different tidal states and for sites which may potentially affect high tide roosts, observations should be conducted from two hours before high tide to two hours after high tide. Consideration should also be given to surveys in poor weather/visibility conditions as large movements of birds can be observed at this time. If waders have the potential to use the development site, Natural England also recommends nocturnal surveys.

VP surveys may also need to take account of surveys at dusk and dawn, depending upon the bird species (i.e. geese and swans). If geese and swans have the potential to use the development site or surrounding area, we would expect to see surveys 1 hour before and 1 hour after, dusk and dawn during the respective bird survey season (i.e. winter, spring and autumn passage (as above)).

The Humber Estuary SPA qualifies under article 4.2 of the European Commission Bird Directive (79/409/EEC) in that it supports an internationally important assemblage of waterbirds. Please refer to Annex C for further guidance on the 'main component species' of the assemblage.

Natural England has generally advised that if  $\geq 1\%$  of a Humber Estuary bird species population could be affected by a proposal, alone or in combination with other plans or projects, then further consideration is required. However, where species are particularly vulnerable due to declines in the Humber population, then it may not be appropriate to rely on the 1% of the estuary population as the critical threshold. Mitigation measures may be required where lower numbers of vulnerable species are using a site that is proposed for development.

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<sup>2</sup> Scottish Natural Heritage: Recommended bird survey methods to inform impact assessment of onshore wind farms (March 2017- Version 2).

## Annex C: Humber Estuary Special Protection Area: non-breeding waterbird assemblage (October 2022)

The Humber Estuary Special Protection Area (SPA) qualifies under article 4.2 of the European Commission Bird Directive (79/409/EEC) in that it supports an internationally important assemblage of waterbirds. Confusion can arise concerning which species to consider when assessing the Humber Estuary SPA non-breeding, waterbird assemblage feature.

Natural England recommends focusing on what are referred to as the 'main component species' of the assemblage. Main component species are defined as:

- a. All species listed individually under the assemblage feature on the SPA citation (i.e the species that qualified in 2004 when the site was designated).
- b. Species which might not be listed on the SPA citation but occur at site levels of more than 1% of the national population according to the most recent Humber Estuary Wetland Bird Survey (WeBS) 5-year average count.
- c. Species where more than 2000 individuals are present according to the most recent Humber Estuary WeBS count.

The assemblage qualification is therefore subject to change as species' populations change. It should be noted that species listed on the citation under the assemblage features, whose populations have fallen to less than 1% of the national population, retain their status as a main component species and should be considered when assessing the impacts of a project or plan on the Humber Estuary SPA.

Natural England advises that the main component species of the Humber Estuary SPA non-breeding waterbird assemblage include (October 2022):

a) *Species listed individually under the assemblage feature on the SPA citation:*

- Avocet, *Recurvirostra avosetta* (non-breeding)
- Bar-tailed godwit, *Limosa lapponica* (non-breeding)
- Bittern, *Botaurus stellaris* (non-breeding)
- **Black-tailed godwit, *Limosa limosa islandica* (non-breeding)<sup>1</sup>**
- **Brent goose, *Branta bernicla* (non-breeding)<sup>1</sup>**
- **Curlew, *N. arquata* (non-breeding)<sup>1</sup>**
- **Dunlin, *Calidris alpina alpina* (non-breeding)<sup>1</sup>**
- **Golden plover, *Pluvialis apricaria* (non-breeding)<sup>1</sup>**
- Goldeneye, *Bucephala clangula* (non-breeding)
- Greenshank, *T. nebularia* (non-breeding)
- Grey plover, *P. squatarola* (non-breeding)
- Knot, *Calidris canutus* (non-breeding)
- **Lapwing, *Vanellus vanellus* (non-breeding)<sup>1</sup>**
- **Mallard, *Anas platyrhynchos* (non-breeding)<sup>1</sup>**
- Oystercatcher, *Haematopus ostralegus* (non-breeding)
- Pochard, *Aythya farina* (non-breeding)
- **Redshank, *Tringa totanus* (non-breeding)<sup>1</sup>**
- Ringed plover, *Charadrius hiaticula* (non-breeding)
- **Ruff, *Philomachus pugnax* (non-breeding)<sup>1</sup>**
- Sanderling, *Calidris alba* (non-breeding)
- Scaup, *Aythya marila* (non-breeding)
- **Shelduck, *Tadorna tadorna* (non-breeding)<sup>1</sup>**
- **Teal, *Anas crecca* (non-breeding)<sup>1</sup>**
- Turnstone, *Arenaria interpres* (non-breeding)
- **Whimbrel, *Numenius phaeopus* (non-breeding)<sup>1</sup>**
- **Wigeon, *Anas Penelope* (non-breeding)<sup>1</sup>**

And

b) Species which are not listed on the SPA citation but occur at site levels of more than 1% of the national population according to the most recent Humber Estuary Wetland Bird Survey (WeBS) 5-year average count:

- Green sandpiper, *Tringa ochropus* (non-breeding)
- **Greylag goose, *Anser anser* (non-breeding)<sup>1</sup>**
- **Little egret, *Egretta garzetta* (non-breeding)<sup>1</sup>**
- **Pink-footed goose, *Anser brachyrhynchus* (non-breeding)<sup>1</sup>**
- Shoveler, *Anas clypeata* (non-breeding)
- **White-fronted goose, *Anser albifrons* (non-breeding)<sup>1</sup>**

As stated above, the assemblage qualification is subject to change as species' populations change; therefore, the appropriate WeBS data should be considered in any assessment and the above list should be used as a guide only.

Please note, the advice set out above should be considered when assessing potential impacts on the waterbird assemblage feature. You will also need to consider potential impacts on species which are not considered to be non-breeding waterbirds but are listed on the citation qualifying under article 4.1 and 4.2 of the Directive. These include:

- **Hen harrier, *Circus cyaneus* (non-breeding)<sup>1</sup>**
- **Marsh Harrier, *Circus aeruginosus* (breeding)<sup>1</sup>**
- Little tern, *Sterna albifrons* (breeding)
- Avocet, *Recurvirostra avosetta* (breeding)
- Bittern, *Botaurus stellaris* (breeding)

The species marked <sup>1</sup> in bold text are known to use non-wetland habitats (e.g. arable farmland and/or grassland/pasture) and may therefore be the most relevant for assessing potential impacts of a proposed plan/project on birds using functionally linked land associated with the Humber Estuary SPA. However, please note that this list should be used as a guide only; usage may depend on factors such as the habitats available on the site and distance to the Humber Estuary etc. Therefore, assessments of potential impacts on birds using functionally linked land should consider all relevant species and clear justification should be provided if any species are excluded from the assessment.



**Patten, Jack**

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**From:** Aaron Walsh <[REDACTED]> on behalf of Town Planning LNE  
<TownPlanningLNE@networkrail.co.uk>  
**Sent:** 16 June 2023 15:41  
**To:** Fenwick Solar Farm  
**Subject:** EN010152 - Scoping Opinion for Fenwick Solar Farm

OFFICIAL

**FAO – Planning Inspectorate**  
**Ref – EN010152**  
**Proposal – Scoping Opinion for Fenwick Solar Farm**  
**Location – Fenwick Solar Farm**

Thank you for your letter of 16 June 2023 providing Network Rail with an opportunity to comment on the abovementioned Scoping Opinion.

With reference to the protection of the railway, the Environmental Statement should consider any impact of the scheme upon the railway infrastructure and upon operational railway safety. In particular, it should include a Glint and Glare study assessing the impact of the scheme upon train drivers (including distraction from glare and potential for conflict with railway signals). It should also include a Transport Assessment to identify any HGV traffic/haulage routes associated with the construction and operation of the site that may utilise railway assets such as bridges and level crossings during the construction and operation of the site. We note that this is referenced in the scoping document.

Please note that if the intention is to install cabling/network connections through railway land, the developer will need an easement from Network Rail and we would recommend that they engage with us early in the planning of their scheme, in order to discuss and agree this element of the proposals.

Kind regards



**Aaron Walsh**  
Graduate  
Network Rail Property (Eastern Region)  
George Stephenson House, Toft Green, York, YO1 6JT

\*\*\*\*\*  
\*\*\*\*\*

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\*\*\*\*\*  
\*\*\*\*\*



# South Yorkshire FIRE & RESCUE

**Chris Kirby**  
Chief Fire Officer & Chief Executive

Date: 13/06/2023

Your Ref: EN010152

Our Ref: NS/#606223/DS/E10023/0/JN  
1127968

Business Fire Safety  
Leicester Avenue  
Doncaster  
DN2 6DR

This matter is being dealt with by: Business Fire Safety Inspecting Officer David Swann

Tel Direct line: [REDACTED]

Fax Direct line:

Tel: 0114 [REDACTED]

Email: bfs.cs@syfire.gov.uk

Website: www.syfire.gov.uk

Fax: 0114 [REDACTED]

Environmental Services  
Operations Group 3  
Temple Quay House  
2 The Square  
BRISTOL  
BS1 6PN

[fenwicksolar@planninginspectorate.gov.uk](mailto:fenwicksolar@planninginspectorate.gov.uk)

Dear Sir/Madam

**LEGISLATION:** Fire and Rescue Services Act 2004

**PROPOSAL:** Application by Fenwick Solar Project Limited (the Applicant) for an Ordergranting Development Consent for the Fenwick Solar Farm (the Proposed Development)

**LOCATION:** Land off Lawn Lane, to the South of the River Went, Fenwick, Doncaster

**APPLICANT:** Fenwick Solar Project Limited

Thank you for your letter dated 2<sup>nd</sup> June 2023.

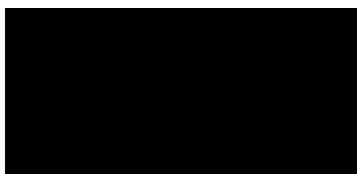
Further to your consultation in respect of the above, SYFR has no observations to make.

The above notwithstanding, if the proposal should become the subject of a Building Regulations application then detailed comments may be made at that time.

If you require any further information, please do not hesitate to contact the officer dealing with this matter.



Yours faithfully



Chief Fire Officer

**Data Protection Act 2018**

Information provided relating to any application made to South Yorkshire Fire & Rescue will be retained and may be used for future enforcement purposes and monitoring statutory compliance by SYFR and related enforcement agencies.

Disclaimer – Any legal liability howsoever arising from any information contained in this correspondence is hereby excluded.





Proposed Solar Farm  
Fenwick

**DONCASTER DESIGNING OUT CRIME  
And CRIME REDUCTION UNIT**  
Doncaster Police Station  
College Road  
DN1 3HX  
26 June 2023

Thank you for giving the Designing out crime officer the opportunity to comment on the security at the proposed Solar farm at Fenwick

Similar sites in the Doncaster area have suffered attacks, which include thefts of solar panels and thefts of copper connectors from within the site and damage to the solar panels themselves. Entry is gained in most cases by cutting the fence to allow quad bikes to be ridden onto the site and the attacks carried out. At one nearby solar farm, thefts and damage have occurred to such an extent that it has reduced the capability of the site to operate at full capacity.

A visit to the location for the proposed site highlights the rural and somewhat remote nature of the site. There are a small number of domestic residences near to the site with open farmland in abundance. The roads surrounding the site are narrow with very little passing traffic on foot or in a vehicle. Farms in the area suffer from anti-social behaviour and damage to crops by offenders using the area to ride off road motorcycles and quadbikes.

The documentation provided with this request states that it is the intention to erect a perimeter fence consisting of stock deer fence erected to a height of between 2 metres and 3 metres. This will be insufficient to prevent or even deter attacks on this site.

It is strongly recommended that the outer fencing at the site is a type that is tested by the LPCB to achieve LPS 1175 C5 (previously known as SR3) as a minimum. The fence should be fixed preferably using concrete into the ground. The minimum height should be 3.5 metres. Access gates should be the same height and standards as the perimeter fencing.

Both palisade and weld mesh fencing can be manufactured to meet the above security standards

Palisade fencing consisting of vertical palings attached to horizontal tie bars has excellent anti climb properties, but older stock has some issues with the strength of the bolts used to attach the palings to the horizontal bars.

Upgraded and higher security specifications reduce and almost eliminate the issues with the fastenings

An alternative fencing type to consider is a weld mesh type such as the SecureGuard SL3X mesh fencing.

This too achieves the security standard LPS 1175 C5. Weldmesh fencing provides better surveillance of the site and is less visually intrusive.

Lighting should be designed in conjunction with the CCTV and PIDs to facilitate intruder detection during the hours of darkness

Lock shrouds should protect gate padlocks and the padlocks should be Sold secure 'Gold' standard.

Consideration should be given to installation of a fence security topping and the installation of a Perimeter intruder detection system (PIDs) in addition to any other internal alarm system. The detection can be activated either by an offender attacking the fence or by intrusion onto the site.

Monitored CCTV should be installed to current British and European standards and conform to 'ICO' Information Commissioners Office regulations.

CCTV poles should have 'Anti Climb Spiked Pole Collars' fitted.

Lighting should be designed in conjunction with the CTV and PIDs to facilitate intruder detection during the hours of darkness.

Any external cabling should be buried or protected by conduit.

It is important to have all the security intervention installed and working prior to installation of the battery plant, and control centre.

Further advice will be provided should a planning application be made regarding this site.

Should you wish to discuss these recommendations or require further details on any of the points mentioned in this report please contact me on the details below.

Regards

**Eamonn Larkin**

**Eamonn Larkin**

**Designing out Crime / Crime Reduction Officer**

**South Yorkshire Police**

**Doncaster**

**South Yorkshire**

**DN1 3HX**



**The Coal  
Authority**

Resolving the **impacts** of mining

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E: [planningconsultation@coal.gov.uk](mailto:planningconsultation@coal.gov.uk)  
[www.gov.uk/coalauthority](http://www.gov.uk/coalauthority)

For the attention of Jack Patten – EIA Advisor  
The Planning Inspectorate

**[By email: [fenwicksolar@planninginspectorate.gov.uk](mailto:fenwicksolar@planninginspectorate.gov.uk)]**

21 June 2023

Dear Mr Patten

**Application by Fenwick Solar Project Limited (the Applicant) for an Order granting Development Consent for the Fenwick Solar Farm (the Proposed Development)**

**Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested**

Thank you for your notification of 02 June 2023 seeking the views of the Coal Authority on the above.

I have checked the site location plan against our coal mining information and can confirm that, whilst the proposed development site falls within the coalfield, it is located outside the Development High Risk Area as defined by the Coal Authority.

On this basis, the Planning team at the Coal Authority have no comments to make.

Please do not hesitate to contact us if you would like to discuss this matter further.

Yours sincerely

**The Coal Authority Planning Team**

## Disclaimer

The above consultation response is provided by The Coal Authority as a Statutory Consultee and is based upon the latest available data on the date of the response, and electronic consultation records held by The Coal Authority since 1 April 2013. The comments made are also based upon only the information provided to The Coal Authority by the Local Planning Authority and/or has been published on the Council's website for consultation purposes in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by The Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the Applicant for consultation purposes.





UK Health  
Security  
Agency

Environmental Hazards and Emergencies Department  
Seaton House, City Link  
London Road  
Nottingham, NG2 4LA

[nsipconsultations@ukhsa.gov.uk](mailto:nsipconsultations@ukhsa.gov.uk)  
[www.gov.uk/ukhsa](http://www.gov.uk/ukhsa)

Your Ref: EN010152  
Our Ref: CIRIS 63672

Mr Jack Patten.  
The Planning Inspectorate.  
Environmental Services.  
Operational Group 3.  
Temple Quay House,  
2 the Square,  
Bristol BS1 6PN

29<sup>th</sup> June 2023

Dear Mr Patten,

**Nationally Significant Infrastructure Project  
Fenwick Solar Farm [PINS Reference: EN010152]  
Scoping Consultation Stage**

Thank you for including the UK Health Security Agency (UKHSA) in the scoping consultation phase of the above application. ***Please note that we request views from the Office for Health Improvement and Disparities (OHID) and the response provided below is sent on behalf of both UKHSA and OHID.*** The response is impartial and independent.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Having considered the submitted scoping report we wish to make the following specific comments and recommendations:

**Environmental Public Health**

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be

covered elsewhere in the Environmental Statement (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. UKHSA and OHID's predecessor organisation Public Health England produced an advice document *Advice on the content of Environmental Statements accompanying an application under the NSIP Regime*<sup>1</sup>, setting out aspects to be addressed within the Environmental Statement<sup>1</sup>. This advice document and its recommendations are still valid and should be considered when preparing an ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.

In general, the planned approach to the air quality assessment appears to be reasonable, although more detail is required to consider local air quality impacts, particularly in the absence of representative automatic (continuous) and diffusion tube monitoring. We note the Promoter will consider whether baseline air quality monitoring is required.

## **Recommendations**

Our position is that pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen are non-threshold, i.e., an exposed population is likely to be subject to potential harm at any level and that reducing public exposure to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure) and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

Although the preliminary information as provided in the Scoping Report, states that the groundwater vulnerability is generally low, we note the Promoter has yet to obtain details, including locations and users of Private Water Supplies (PWSs) and abstractions in vicinity of the Study Area. We understand that assessments such as a Water Impact Assessment and Water Framework Directive (WFD) assessment will be prepared to offer a fuller context of potential impacts to the water environment that may arise from the development. We will

---

<sup>1</sup>  
<https://khub.net/documents/135939561/390856715/Advice+on+the+content+of+environmental+statements+accompanying+an+application+under+the+Nationally+Significant+Infrastructure+Planning+Regime.pdf/a86b5521-46cc-98e4-4cad-f81a6c58f2e2?t=1615998516658>

be in a better position to gauge potential public health impacts as more details are made available at later consultation stages.

We note that at the current stage of application, the Promoter's intention to prepare a Preliminary Risk Assessment (PRA) that will detail land condition and pollution history if relevant. Such information is necessary to inform an assessment of potential public health impacts. We await this information before providing comment.

We note that the Promoter has scoped out the further assessment of Major Accidents and Incidents. Considering that more detail will be forthcoming and is required to adequately assess residential receptor impacts arising from the proposed development, we consider that Major Accidents (including and especially fire risks) have not yet been fully assessed and that it is too early to scope out a detailed assessment of Major Accidents at this stage. We recommend that the Promoter considers scoping in Major Accidents and Disasters, until the route for the underground cable route has been finalised and the potential for accidents that might affect public health is fully understood. This is notwithstanding the fact that safe methods of working would be used.

### **Electromagnetic fields**

UKHSA requests that the proposer confirms that either the project does not contain any EMF sources that has a potential public health impact; or ensures that an appropriate health impact assessment is carried out in the ES. For information, please see the EMF section of the supplementary material that accompanies this reply, entitled - Advice on the Content of Environmental Statements accompanying an application under the NSIP Regime.

Yours sincerely

On behalf of UK Health Security Agency  
[nsipconsultations@ukhsa.gov.uk](mailto:nsipconsultations@ukhsa.gov.uk)

*Please mark any correspondence for the attention of National Infrastructure Planning Administration.*

**Patten, Jack**

---

**From:** Pollard, Ian <[REDACTED]>  
**Sent:** 08 June 2023 15:56  
**To:** Fenwick Solar Farm  
**Subject:** FW: EN010152 - Fenwick Solar Farm - EIA Scoping Notification and Consultation  
**Attachments:** EN010152 - Fenwick Solar Farm - Statutory Consultation Letter.pdf

Good afternoon

Thank you for the email below and attached letter dated 2 June 2023.

I confirm that following review, Wakefield Council do not wish to offer any comments relating to this scheme.

Kind regards

-----  
**Ian Pollard**  
**Service Manager**  
**Planning Services (Development Management & Building Control)**  
Wakefield Metropolitan District Council  
Wakefield One, Burton Street, Wakefield, WF1 2EB  
Tel: [REDACTED]  
Email: [REDACTED]  
[www.wakefield.gov.uk](http://www.wakefield.gov.uk)

---

## Patten, Jack

---

**From:** Development <Development@yorkshirehumberdrainage.gov.uk>  
**Sent:** 05 June 2023 10:55  
**To:** Fenwick Solar Farm  
**Subject:** RE: EN010152 - Fenwick Solar Farm - EIA Scoping Notification and Consultation  
**Attachments:** Technical Guidance for Developer and Standing Advice.pdf

Good morning,

Thank you for your consultation regarding the proposed Fenwick Solar Farm.

We have been in discussions with the developer in relation to a similar scheme in one of our other Drainage Board areas, and are pleased that a similar approach to watercourses and land drainage is proposed here.

Please find attached our Standing Advice for large developments. In particular we would like to highlight the following requirements that should form part of a detailed drainage design at the appropriate planning stage:

- No structures to be installed within 9 metres of any watercourse.
- Surface water discharge to be restricted to greenfield runoff rates, with any new discharge to existing watercourses subject the Land Drainage Consent from the Board.
- Access routes to remain to existing Board-maintained watercourses (shown in red on the map below).
- Land Drainage Consent will be required for any alterations to watercourses. Crossing points for any cables will require consent; we would generally agree to open-cut methods for smaller watercourses and require directional drilling methods for Board-maintained watercourses.



A map of all Board-maintained watercourses and related assets can be found on the link below:

<https://ohdb.maps.arcgis.com/apps/webappviewer/index.html?id=f19ec937c11a4c9e96719d7403a2bf3e>

We would encourage the developer to consult us when appropriate to discuss the above issues in more detail.

Kind regards,

**Development Team**



**Yorkshire  
Drainage Bo**

**Black Drain Drainage Board  
Cowick & Snaith Internal Drainage Board**

**24 Innovat  
Newport  
Fast Ridin**



**Yorkshire & Humber**  
Drainage Boards

# **Technical Guidance for Developers & Standing Advice for Local Planning Authorities**

**Black Drain Drainage Board**

**Cowick and Snaith Internal Drainage Board**

**Danvm Drainage Commissioners**

**Dempster Internal Drainage Board**

**Ouse & Humber Drainage Board**

**Rawcliffe Internal Drainage Board**

**Reedness & Swinefleet Internal Drainage Board**

**Vale of Pickering Internal Drainage Board**

**The South Holderness Internal Drainage Board also subscribe to this guidance**

Document Control		
Version	Approved	Next Review
2.01	17/08/2020	<del>17/08/2021</del>
2.02	05/09/2020	05/09/2021



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## Legal Notice

*The Applicant, Agent or any other user of this guidance agrees that by following the advice given, the Internal Drainage Boards (“IDBs”) shall under no circumstances whatsoever, be liable to the Applicant, Agent or user of this document, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any loss of profit, or any indirect or consequential loss arising under or in connection with advice given or procedures followed.*

*A favourable response from an IDB to a planning application does not imply land drainage consent is or will be granted. On becoming aware of changes to a planning application the IDBs reserve the right to withdraw any comment made to the local planning authority.*

*The IDBs that subscribe to the standing advice and guidance contained within this document are listed on the cover page of this document, please refer to individual policy positions of other IDBs.*

*Yorkshire and Humber Drainage Boards (“YHDB”) is a public sector management group that directly represents 8 IDBs through arrangements made under S11 of the Land Drainage Act 1991. Administrative services are provided on behalf of YHDB by Ouse and Humber Drainage Board, a public authority constituted under statutory instrument.*

*A map showing England’s Internal Drainage Districts and contact details for all IDBs in England can be found at [www.ada.org.uk](http://www.ada.org.uk).*

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- carry out research into environmental issues and develop solutions to problems;*
- provide information from the public register to anyone who asks;*
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- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows).*

*We may pass information on to our agents and representatives to do these things for us.*

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*This policy references and acknowledges the works of others throughout this document.*

## 1. Introduction

- 1.1. The following guidance is intended to assist developers when designing drainage systems that are both sustainable and where appropriate mimic natural processes. This means a development will not result in an increased flood risk elsewhere or result in a negative impact on existing drainage systems and should ensure the users of the development are safe. Any such design should work over the lifetime of the development within acceptable design parameters which consider future climate change. This kind of drainage design is commonly referred to as Sustainable Drainage Systems ("**SuDS**").
- 1.2. In addition to SuDS the placement of any development, its associated infrastructure or ancillary works must not physically interfere with the local land drainage system.
- 1.3. These measures are required to protect the local land drainage network to ensure lawful compliance with local land drainage bylaws ("**the Bylaws**") and the Land Drainage Act 1991 ("**the Act**").
- 1.4. The information given in this guidance is intended to help a developer support a Land Drainage Consent Application. It is also intended to support the local planning authority ("**LPA**") with their consultation, validation, and decision-making processes where YHDB internal drainage districts coincide with unitary or lower tier local authority districts.
- 1.5. YHDB encourages developers to work within the town and country planning process to provide evidence required by relevant [Flood] Risk Management Authorities ("**RMAs**") to support an application in respect of drainage and flood risk.
- 1.6. Failure to provide information or consult with IDBs during the planning process may result in delays or viability issues later, or in worst case scenarios *'returning to the drawing board'*.

## 2. Policy Area

- 2.1. The area to which this guidance applies is made up of the internal drainage districts of the Black Drain Drainage Board, Cowick and Snaith Internal Drainage Board, Danvm Drainage Commissioners, Dempster Internal Drainage Board, Ouse & Humber Drainage Board, Rawcliffe Internal Drainage Board, Reedness & Swinefleet Internal Drainage Board, Vale of Pickering Internal Drainage Board and the South Holderness Internal Drainage Board and from time to time may be applied to the catchment area outside of, but draining into these internal drainage districts. This is the ("**Policy Area**").
- 2.2. A map of internal drainage districts in England can be accessed at [ada.org.uk](http://ada.org.uk).

## 3. The Role of IDBs, other RMAs and LPAs

- 3.1. IDBs have a very important role in any process that may have an impact on flood risk or the local land drainage system. The statutory position is that IDBs are public authorities that shall exercise a general supervision over all matters relating to the drainage of land within their districts, meaning they are the relevant authority that makes decisions about land drainage

including giving permission to discharge to the land drainage system and regulating actions that may impact it through the land drainage consent process.

- 3.2. IDBs are not currently a statutory consultee to the town and country planning process but do have powers to stop and reverse unlawful changes that may increase flooding or impact the local land drainage system using enforcement powers.
- 3.3. LPAs may consult IDBs on development proposals; this is to ensure that as the relevant authority, IDBs are satisfied that the proposals mitigate potential increased flood risk and have no adverse impact on the local land drainage system.
- 3.4. Outside of internal drainage districts the relevant authority for land drainage is the LLFA, this is a statutory function provided by a unitary or upper tier local authority. The LLFA holds many of the same powers as an IDB, but not all LLFAs make use of local land drainage bylaws.
- 3.5. The LLFA is also the statutory body for managing and coordinating flood risk management locally and publish the Local Flood Risk Management Strategy that other RMAs must act consistently with or have regard to when making decisions. The LLFA is a statutory consultee to the town and country planning process which means the LPA must consult with them on major planning applications.
- 3.6. The Environment Agency (“EA”) is the authority that has powers to manage flooding from main rivers and the sea. The EA is a statutory consultee to the planning process. The EA hold a strategic role to coordinate the national response to all types of flood risk.
- 3.7. Water and Sewerage Companies (“WSC”) are responsible for the public sewerage system. They have powers to manage the impact on the public sewer network and may enter into an agreement to adopt sewers built by the developer.
- 3.8. The highway authority may adopt drainage apparatus, however these apparatus are usually associated exclusively with the drainage of the adoptable highway.
- 3.9. There are 6 LLFAs and 8 LPAs in the Policy Area, we recognise that although each authority will have broadly the same technical requirements, one authority may require a higher standard than another. YHDB boards will always accept a higher technical standard if required by another RMA or LPA. In the unlikely event technical standards of two authorities’ conflict YHDB officers may communicate directly with the other authority to seek an agreed standard.

#### **4. Land Drainage Consent**

- 4.1. If a person wishes to change, or by their actions cause changes to the local land drainage system, either directly or indirectly, a land drainage consent may be required. A land drainage consent is a separate permission to a planning consent.
- 4.2. In the simplest terms a land drainage consent is required if any proposal or action may be contrary to Bylaws or the Act. If you can answer yes to any of the following questions it is likely a land drainage consent will be required:

- ***“Do you plan to place any structure, fencing or planting within 9 metres of the top of the bank of a watercourse, the outside toe of a raised flood defence or the outside edge of a piped watercourse?”***
- ***“Will your actions increase the flow or volume of water entering a board maintained watercourse either directly or indirectly by any means whatsoever, including water entering the internal drainage district from outside and water entering via any other watercourse or pipeline?”***
- ***“Do you plan to introduce anything in, below, above, or next to a watercourse?”***

4.3. When considering the above questions, the answer may not be obvious, e.g. stripping topsoil off a site planned for a major development will increase the flow and volume of water and will require consent.

4.4. Please also consider if any action may displace water within or into a drainage district, without the agreement of the IDB this may contravene the Bylaws e.g. a scheme to divert exceedance flows from a river to prevent flooding elsewhere will still require land drainage consent if it increases flows to a watercourse within the Policy Area.

4.5. For further information and to make an application for land drainage consent please download our consent guidance document and application form which can be found on our website.

## **5. Design Principles (Surface Water Drainage)**

5.1. Before considering any commercial or other viability issues, the developer should first work with his designer to ask - ***“is the development at flood risk, and how can it be drained without causing a flood risk to its users or increasing flood risk outside of the development?”***. The answer to this question will influence the design and layout of roads, other infrastructure, and buildings. Taking the opposite approach e.g. ***“firstly let’s assess how many housing units can this piece of land accommodate”*** could result in costly abortive design works if the site is at flood risk or cannot be effectually drained.

5.2. If the new development is proposed to discharge all surface water directly to the sea or a large tidal body such as an estuary, YHDB do not require attenuation on site, otherwise the guidance should be followed. Please be aware that any new discharge to main rivers may require the consent of the EA.

5.3. YHDB recognise that for smaller developments the level of information required to assess flood risk is sometimes disproportionate to the size of the development. There is an option in this guidance to follow a simple method which explains to smaller developers how to undertake hydraulic equations without support from specialists, although this method is acceptable to YHDB, other RMAs may require more detailed information. For larger developments, the developer may wish to seek the advice of a consulting engineer or other qualified or experienced person.

5.4. The IDBs advocate the dual use of public open space (“POS”) and regional SuDS systems. If the LPAs policy agrees with this stance, from an engineering standpoint it is important to understand where on the site POS is proposed.

## **6. Design Principles (Fluvial or Tidal Displacement)**

6.1. Deliberate flooding of land within an internal drainage district (either directly or by displacement) to prevent more damaging flooding elsewhere, may be an appropriate method of managing flood risk in other areas, however the agreement of the affected landowner should be sought and land drainage consent applied for to ensure technical and maintenance proposals are robust.

6.2. If works are planned to lower or raise flood defences on a river or tidal body that impacts the Policy Area (either directly or indirectly) or diverts exceedance flows from a river or tidal body into the Policy Area which will cause an increase in volume of flow to a watercourse, land drainage consent will be required.

6.3. Exceedance flows should be established by understanding how changes on the entire fluvial or tidal system may impact the policy area e.g. raising flood defences on the opposite bank of a river may cause the Policy Area to flood earlier than it does presently.

6.4. Any such proposal should be designed to accommodate exceedance flows in the 1 in 200-year event plus allowances for climate change over the lifetime of the development, which should be taken to be 100-years. Climate change allowances should use the Higher Central Estimate for peak river flow and sea level rise estimates contained within the latest climate change allowances for flood risk assessments published by the EA.

6.5. If water is introduced into the Policy Area from elsewhere that results in over 25,000m<sup>3</sup> of water being impounded above natural ground level, this may be classified as a reservoir. Any engineering proposal that is a reservoir will need to meet the reservoir safety regulations<sup>1</sup>, which may include for the provision of a designed spillway. You must tell the EA if you intend to build a reservoir. The position of the spillway and any designed secondary flow exceedance route that enters the Policy Area must be agreed with YHDB.

6.6. For land drainage consent to be considered in these circumstances the following 4 preliminary tests must be passed:

- TEST 1 - Will the proposals result in an exceedance volume being contained in a discrete area e.g. impounded using barrier banks, valves?
- TEST 2 - Are there formal agreements in place with the owner(s) of land within the discrete area where exceedance volume is to be contained?
- TEST 3 – Do the proposals include for the provision of permanent infrastructure to remove at least 95% of the exceedance volume from the discrete area, by extent, from the Policy

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<sup>1</sup> For more information visit <https://www.gov.uk/government/publications/design-operation-and-adaptation-of-reservoirs-for-flood-storage>

Area to a depth of less than 100mm within 72 hours of the event occurring (provided the fluvial or tidal system has capacity to accept the return of the exceedance volume)?

- TEST 4 - Is there a long-term funded maintenance strategy in place to manage the permanent infrastructure constructed to meet the above tests over the lifetime of the development?

6.7. If you are planning these types of works anywhere on a tidal or fluvial system and this may impact the Policy Area, please speak with YHDB officers early as possible in the process.

## **7. Design Principles and Policies of other Authorities**

7.1. Developers are encouraged to speak to the IDB, LPA, EA, Highways Authority and WSC early to discuss a development's drainage and flood risk proposals. This is important to ensure the proposed design is compatible with the individual authorities' acceptable technical standards.

7.2. This guidance should be read in conjunction with the National Planning Policy Framework, the Local Flood Risk Management Strategy<sup>2</sup>, the Strategic Flood Risk Assessment<sup>3</sup> and relevant technical notes or supplementary planning advice issued by local authorities. If any part of the drainage design forms part of an adoption agreement with a WSC the designer should ensure that the design complies with the WSC's technical requirements.

## **8. Hydraulic Design (Surface Water)**

8.1. This guidance is based on the publication "*Sustainable Drainage Systems – Non-statutory technical standards for sustainable drainage systems: Department for Environment, Food and Rural Affairs: 2015*" ("**NSTS**") and other publications referenced throughout.

8.2. The guidance differs from the NSTS where it asks the developer to identify the Critical Duration rather than the 6-hour duration. The Critical Duration is the event likely to cause the highest volume within the proposed engineered drainage system for the specified return period. YHDB consider that applying a standard duration regardless of the size of impermeable area and peak runoff rate will give erroneous results, e.g. a large warehousing development with metalled car parks will have a very different critical duration to a small residential development with gardens and landscaping.

8.3. Other RMAs may ask for the 6-hour duration storm to be used for the calculation; however, sensitivity testing should be undertaken to compare this to the critical duration. The IDB will accept designs that are oversized for the critical duration but not undersized.

8.4. If a proposed development introduces a new impermeable area that is estimated to be greater than 249m<sup>2</sup>, applicants are advised to complete the form found at Appendix A – '*Sustainable Drainage Information*' accompanied by guidance notes found later on in this document. Please then submit this and the required supporting information as evidence along with the planning application documents to the LPA (or in the case of permitted development directly to YHDB). Once this information is published by the LPA, YHDB development control

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<sup>2</sup> Published by Unitary or Upper Tier Local Authority Lead Local Flood Authority Department

<sup>3</sup> Published by Unitary or District Authority Local Planning Authority Department

officers may assess the information and if relevant make comments to the LPA or directly to the developer.

- 8.5. The design should consider flooding within the development, peak flow control, design attenuation, off site flood risk and the runoff destination.
- 8.6. In the case of greenfield areas to be developed the design should ensure runoff from the development mimics natural processes as closely as possible. The drainage system should be designed to attenuate (store) additional rainfall volume generated over the duration of the design rainfall event due to the development and release this at a controlled rate to the runoff destination, usually a downstream watercourse or piped system.
- 8.7. Ideally the design should restrict flows generated from the site in the 1 in 1-year rainfall event using the method set out in IH124 QBAR<sup>4</sup> (Nominally 1.4 litres per second per hectare (l/s/ha)), this is normally achieved using an engineered flow control device, this could be a pump or a mechanically actuated valve but in most cases will be a static flow control device which restricts the amount of water that can pass through it. Where static flow control device such as a vortex flow control or orifice plates are used, they must not have an orifice (diameter) of less than 75mm which will give a flow rate that is normally not less than 3.5 litres per second (l/s).
- 8.8. YHDB consider orifices smaller than 75mm may block more easily and will result in unacceptable drain-down periods increasing flood risk overall, however new designs or novel approaches to reduce this runoff rate further may be considered if effective operation and long term serviceability issues are proven to be met. If a novel approach or new proprietary product is proposed that has a diameter of less than 75mm or flow rate of less than 3.5 l/s then please contact YHDB to discuss this further.
- 8.9. For residential development, a 10% additional allowance in impermeable area should be made for 'urban creep'; this accounts for extensions, patios and conservatories built during the life of the development.
- 8.10. The design event shall be based on the critical duration for the 1 in 100-year rainfall event + allowances for climate change on greenfield sites (always 40% for residential development). FSR<sup>5</sup>/FEH<sup>6</sup> rainfall profiles will be accepted when making this calculation.
- 8.11. It is important to understand that a return period does not represent a future time frame, it represents a statistical probability of an event occurring, e.g. a 1 in 100-year rainfall event represents a 1% chance of that rainfall event occurring in a given year. It is entirely feasible that a 1 in 100-year event could occur in the same place twice in the same year.
- 8.12. The runoff destination should be considered in accordance with the following hierarchy:

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<sup>4</sup> Institute of Hydrology Report Nr. 124: 1994

<sup>5</sup> Flood Studies Report: 1975

<sup>6</sup> Flood Estimation Handbook: 2013



- Infiltration to ground
  - Discharge to a watercourse or river
  - Discharge to a surface water sewer or highway drain
  - Discharge to a combined sewer
- 8.13. Due to the nature of ground conditions and seasonal variation in ground water levels within an internal drainage district, conditions are often not conducive to infiltration to ground.
- 8.14. Unless an existing connection exists (and this was made lawfully), discharge to a watercourse or river outside of the development will require the agreement of the landowner(s) through which the watercourse or river passes. Discharge to a main river may require the consent of the EA. Discharge to a public sewer or highway drain may require the consent of the WSC or Highway Authority.
- 8.15. The developer should show they have considered a Sustainable Drainage (SuDS) approach to design:
- Source Control - *e.g. unbound surfaces, planted areas, runoff paths to gardens*
  - Site Control - *e.g. slowing the flow down, e.g. swales in verges*
  - Regional Control - *e.g. dry attenuation basin with a flow control device*
- 8.16. The design should consider exceedance flow above the design event, consider if the route of the water will be changed due to the development e.g. will a new wall deflect water in a new direction?
- 8.17. For developments on previously developed land the peak runoff rate, where the water leaves the site should be as close as reasonably practicable to the greenfield runoff rate especially where there is no existing positive drainage system. For areas that have a proven existing positive drainage system, a higher rate will be accepted only where detailed sensitivity testing is undertaken to establish the current maximum rate at which water leaves that system. This should be assessed up to the current 1 in 30-year rainfall event where water does not escape at ground level. In other words, the peak runoff rate should never exceed the rate of discharge from the drainage system prior to the redevelopment. Any such proposal will require a body of evidence potentially including surveys and computer modelling.

## 9. Further Advice

- 9.1. YHDB offers up to 30 minutes of free pre-application telephone advice to developers. We also offer a chargeable pre-application service for more detailed advice; please contact us for more details on 01430 430237.

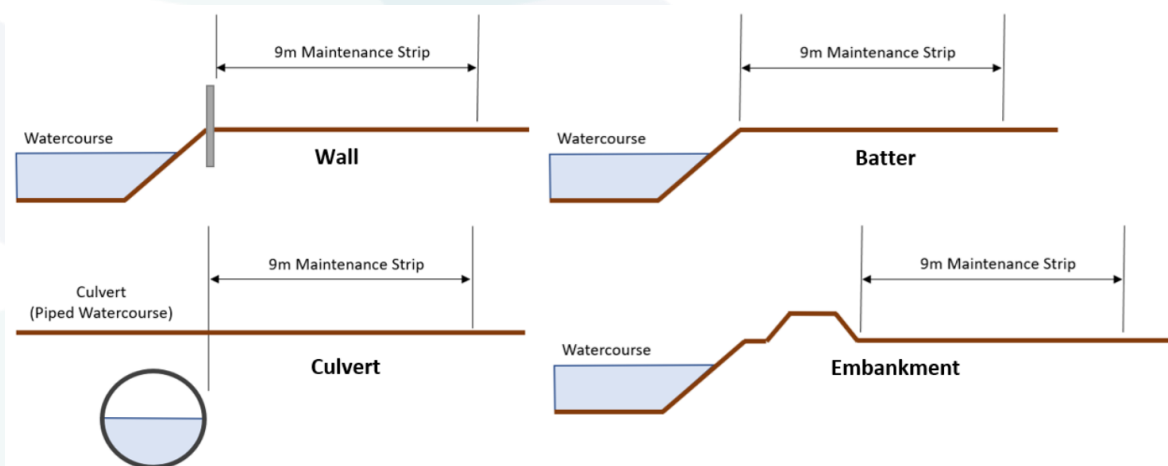
## 10. Standing Advice for Local Planning Authorities

- 10.1. YHDB wish to better support LPAs in making decisions about drainage and flood risk in internal drainage districts and catchment areas, this guidance is intended to assist with their validation and decision-making process. YHDB development control officers are available to offer reasonable support to LPA case officers on drainage and flood risk matters; please contact us on **01430 430237** for further guidance or assistance.
- 10.2. Paragraph 163 of the National Planning Policy Framework states that ***“when determining planning applications, local planning authorities should ensure that flood risk is not increased elsewhere.”*** This provision is underpinned by the statutory definition of flooding set out in Section 1 of the Flood and Water Management Act 2010 which defines a flood as ***“any case where land not normally covered by water becomes covered by water”***.
- 10.3. It is important that the control of flow of water and the proximity of development to drainage systems should be considered against provisions that are set out the Bylaws or the Act e.g. if planning consent was given to construct a building 5m from a watercourse without land drainage consent, and this development was to go ahead this would be unlawful.
- 10.4. Please use the standing advice matrix below to decide if you should consult the IDB. If you are unclear, please contact us on **01430 430237**.

<b>Any development</b>		
Any development with a new impermeable area greater than 249m <sup>2</sup>	<b>Consult</b>	Include roofs, drives and paths even if they are marked as unbound or permeable.
A discharge to the local land drainage system is proposed in the application	<b>Consult</b>	The applicant should consult the IDB to establish if land drainage consent is required before further consultation.  See NOTE 1
The proposed means of access for the development crosses a watercourse	<b>Consult</b>	The applicant should consult the IDB to establish if land drainage consent is required before further consultation.  See NOTE 1
A structure, road, fence-line, or planting is proposed within 9 metres of a watercourse	<b>Consult</b>	The applicant should consult the IDB to establish if land drainage consent is required before further consultation.  See NOTE 1
A garden or landscaped area is within 9m of a watercourse.	<b>Consult</b>	The applicant should consult the IDB to establish if land drainage consent is required before further consultation.  See NOTE 1
No structure, road, fence-line, or planting is proposed within 9 metres of a watercourse	<b>Do not consult</b>	
Change of use only	<b>Do not consult</b>	With no significant changes to paths, drives, roads or means of access
<b>I am unclear if I should consult the IDB</b>		
Please speak with an IDB development control officer on 01430 430237		

### **Note 1 – No Obstructions within NINE metres of the Edge of the Watercourse**

It is unlawful without the prior consent of the internal drainage board for any person to erect any building or structure, whether temporary or permanent, or plant any tree, shrub, willow or other similar growth within 9 metres of the landward toe of the bank where there is an embankment or wall or within 9 metres of the top of the batter where there is no embankment or wall, or where the watercourse is enclosed within 9 metres of the enclosing structure.



By section 66(6) of the Land Drainage Act 1991 every person who acts in contravention of or fails to comply with any of the land drainage Byelaws is liable on summary conviction in respect of each offence.

#### **Consultation email addresses**

Black Drain Drainage Board  
Cowick and Snaith Internal Drainage Board  
Danvm Drainage Commissioners  
Dempster Internal Drainage Board  
Ouse & Humber Drainage Board  
Rawcliffe Internal Drainage Board  
Reedness & Swinefleet Internal Drainage Board  
Vale of Pickering Internal Drainage Board

**[development@yorkshirehumberdrainage.gov.uk](mailto:development@yorkshirehumberdrainage.gov.uk)**

South Holderness Internal Drainage Board

**[info@southholdernessidb.co.uk](mailto:info@southholdernessidb.co.uk)**

## 11. How to Provide Supporting Information

- 11.1. This guidance is to be read in conjunction with the “*Sustainable Drainage Information*” form which can be found at **Appendix A**. It advises you on how to fill in the form and what information and evidence is required to support the information you have given. These requirements are not exhaustive so further information may be required.
- 11.2. The planning authority or the applicant have no statutory requirement to provide this information, however failure to do so may result in YHDB objecting to the proposed development due to lack of information.

## 12. Box A1 – Total Area of The Proposed Development Site (Redline Area)

- 12.1. Provide a location plan of the development, to scale of 1:1000 or 1:1250 or 1:2500 ideally on a recent Ordnance Survey base-map, the plan should include a local named road and nearby building to help identify its location, along with a north arrow.
- 12.2. Provide a site plan of the development, of an appropriate scale that allows all the items listed below to be easily identified.
- 12.3. The plan should have a red line drawn around the area to be developed to define the exact area of the application including means of access. The exact area should be entered in Box A1.
- 12.4. You should include lines for existing below ground surface water drainage or watercourse culverts (where known), these should be marked with a dashed blue line with an arrow marking the direction of flow. Ideally you should mark any manhole or outfall positions and annotate (label) these.
- 12.5. Watercourses should be shown and marked with a solid blue line with an arrow indicating direction of flow and annotated with the words: “**watercourse**”.
- 12.6. If topographical (level) information is available this should be shown with the datum clearly indicated e.g. Metres above Ordnance Datum (mAOD).
- 12.7. There must be no new buildings, hedges, fences, or trees within 9m of a watercourse without consent of the IDB. If any are proposed and you have not contacted the IDB in advance, it is likely the IDB will object to the application.
- 12.8. The IDB always presumes against culverting (piping) of watercourses, and in general will only ever consider this in respect of means of access and health and safety (where health and safety cannot be managed in another way). If culverting is proposed and you have not contacted the YHDB in advance, we are likely to object to the application

**13. Box A2 – Existing Impermeable Area**

- 13.1. On the site plan of the development you have prepared for box A1 shade the existing impermeable area Green, annotate this with ***“Existing Impermeable Area”*** with the area shown in m<sup>2</sup>.
- 13.2. If there is an existing positive (piped) drainage system that you intend to use as part of the proposed development please provide evidence of this such as, as-built records of drainage or a recent drainage / CCTV survey report proving positive drainage.
- 13.3. If an impermeable area has been constructed previously without land drainage consent, the IDB may ask for the whole area to be treated as greenfield.

**14. Box A3 – Total New Impermeable Area**

- 14.1. On the site plan of the development you have prepared for box A1, shade the total impermeable area red. The shaded area should be annotated ***“New Impermeable Area”*** with the area shown in m<sup>2</sup>. Enter this value in Box A3.
- 14.2. Include roofs, paths, roads, parking, drives or any other surface that will not allow rainfall to naturally percolate into the ground below.
- 14.3. For residential developments where there is an estate road, include verges between the adoptable footpath and the adoptable highway.
- 14.4. You may exclude unbound surfaces from the impermeable area such as gravel or non-crushable clean stone that is placed directly on earth or on a permeable geotextile fabric.
- 14.5. You may exclude surfaces from the impermeable area where a proprietary product that is designed for infiltration such as permeable paving is proposed, provided such a product is accredited and the proposed installation meets the technical specification of the manufacturer. If a proprietary product is proposed, please supply supporting product and technical information.
- 14.6. Any material that will compact or bind over time, such as crushed stone or bitumen macadam planings are to be treated as impermeable.

**15. Box A4 – Urban Creep Allowance**

- 15.1. This value only applies to residential development and accounts for the fact that householders build extensions, conservatories, and new paved areas over the lifetime of the development.

**16. Box A5 – Design Impermeable Area**

- 16.1. There is no additional guidance - follow instructions on the form.

**17. Box A6 – Is the design impermeable area greater than 249m<sup>2</sup>?**

17.1. If the answer is no, then you do not have to submit any more information at this stage. The IDB may consider allowing an unrestricted discharge to the local land drainage system and may ask for a contribution to improve the local land drainage system to allow such a discharge.

**18. Box A7 – Design Discharge Rate**

18.1. Enter the runoff value; this will depend if the development is greenfield or brownfield or both. If the site is entirely or partly brownfield with a proven positive drainage system you may enter the brownfield runoff rate. If you are unsure or you are unable to provide the evidence requested to calculate brownfield runoff, you may wish to treat the development as greenfield only, this would be acceptable.

*Greenfield Calculations*

18.2. If applicable, calculate and enter the figure for the greenfield runoff rate of the part of the development that is to be made impermeable. Enter this in Box A7. You can do this in 2 ways:

18.3. Divide Box A5 by 10,000 and multiply by 1.4<sup>†</sup> or;

18.4. Divide Box A5 by 10,000 and multiply by Qbar (1 year) <sup>††</sup>

18.5. <sup>†</sup>1.4 l/s/ha is the generic standard greenfield runoff rate adopted by most flood risk management authorities<sup>7</sup>. YHDB accept this greenfield runoff rate.

18.6. <sup>††</sup> A more advanced method may give a higher existing runoff rate than 1.4l/s/ha. The accepted method is to use Qbar (1 year) which may result in a smaller attenuation area. This should be established by the method set out in Institute for Hydrology Report 24 (IH124). You should show your workings which should include hydrological region, soil type, standard annual average rainfall (SAAR) and the 2.3 year to 1-year growth factor adjustment.

*Brownfield Calculations*

18.7. If applicable, calculate and enter the figure for the brownfield runoff rate for the part of the site that is already impermeable and has a proven positive drainage system. If you are unsure or you are unable to provide the evidence requested, you may wish to treat the development as greenfield only.

18.8. Provide evidence of an existing positive drainage system such as a recent CCTV survey accompanied by a plan.

18.9. Using hydraulic modelling software to undertake sensitivity testing, calculate the critical duration and peak volume in the piped system up to the point that no part of the existing drainage system surcharges (floods out of manholes at ground level); do this for a range of

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<sup>7</sup> If this rate differs from a rate determined another RMA or the LPA please contact the Board for further advice.

durations and return periods up to a maximum of the 1 in 30-year rainfall event. Please provide the results of this simulation.

- 18.10. From this simulation calculate the maximum discharge rate where water leaves the site; this is the brownfield design discharge rate. Enter this value in l/s in Box A7.
- 18.11. If applicable, if the development is partly greenfield and partly brownfield, you may add the brownfield design discharge rate and the greenfield design discharge rate together and enter this value in Box A7.

## **19. Box A8 – Peak Flow Control Rate**

- 19.1. The flow control rate is the maximum rate at which the rainwater that lands on the new impermeable area is permitted to leave the development.
- 19.2. Flow is usually controlled using a static orifice pipe or a vortex control device but can be controlled using other methods. When using a static flow control device this should be 75mm in diameter or larger to prevent blockage, if you are considering using a small diameter product please contact the IDB on 01430 430237.
- 19.3. YHDB considers that if flows are restricted to less than 3.5l/s, drain down times may be unacceptable; therefore, if the design discharge rate is less than 3.5l/s this figure should be rounded up to 3.5l/s. If this value cannot be achieved, please contact the IDB on 01430 430237.
- 19.4. The IDB recognises that proprietary products that may achieve a lesser rate are available and will consider these if robust evidence can be provided on the effectiveness and serviceability of these products over the lifetime of the development.

## **20. Box A9 – Surface Water Disposal Hierarchy**

- 20.1. The applicant should always take a hierarchical approach to disposal of surface water in the following order:
- 20.2. Infiltration
- 20.3. *Due to the nature of ground conditions and seasonal variation in ground water levels within an internal drainage district conditions are often not conducive to infiltration, the IDB require a high degree of evidence that this method will work.*
- 20.4. *If you are using this method, please go to Box B1.*
- 20.5. Discharge to watercourse
- 20.6. *This is the IDB's preferred method. A watercourse can include discharge to a culverted (piped) watercourse; in this case please provide evidence that the culvert is in a serviceable condition and maintained. The applicant will need the permission of the person(s) that owns the land on the route to, or next to the watercourse.*



- 20.7. *If you are using this method, please go to Box C1.*
- 20.8. Discharge to surface water sewer
- 20.9. *The applicant is advised to contact their local WSC before considering this method.*
- 20.10. *If you are using this method, please go to Box C1.*
- 20.11. Discharge to combined sewer
- 20.12. *The applicant is advised to contact their local WSC before considering this method. If the IDB considers that this will increase the volume of water entering the local land drainage system elsewhere, it will object.*

**21. Box B1 – Have You Conducted a Valid Soakaway Test?**

- 21.1. If you are intending to use a soakaway as your means of disposal you must provide a valid test.
- 21.2. The test should be carried out in accordance with BRE365 or other method approved by the IDB. In addition:
- 21.3. The test should be conducted between December 1<sup>st</sup> and March 31<sup>st</sup>. If this is not possible results should be supported by a report from a qualified hydrologist.
- 21.4. Two test pits are required to be excavated to a minimum depth of 1.5m. The test should be conducted 3 times per pit and on each occasion the pit should be allowed to drain completely.
- 21.5. The tests should be evidenced with photographs with a tape or measuring staff included in the image for scale.
- 21.6. The IDB should be contacted and given notice of at least 7 days of when the test is to be undertaken and invited to witness the test. The IDB may or may not attend. Alternatively, if the test is witnessed by an officer of another flood risk management authority the IDB will accept the results.
- 21.7. If groundwater or saturated earth is exposed during the excavation the IDB will consider the test to have failed.
- 21.8. For developments where the new impermeable area is over 500m<sup>2</sup> please contact the IDB first to discuss the technical approach to a soakaway for a larger development.

**22. Box C1 – Can You and Do You Wish to use The Simple Method?**

- 22.1. The IDB does not unduly wish to impose disproportionate requirements on small developers.
- 22.2. If the design impermeable area in Box A5 is between 250m<sup>2</sup> and 750m<sup>2</sup> the applicant can choose a simple method for hydraulic calculations that the IDB will accept.

22.3. To ensure these results are robust it is important the applicant understands and accepts that this method uses figures that are conservative and are likely to overestimate requirements such as attenuation volume.

**23. Box C2 – Simple Method - Rainfall Volume Over Duration**

23.1. The simple method assumes 60mm of rain will fall over the design impermeable area; this figure already includes an allowance for climate change. By multiplying this figure by the design impermeable area this tells us how much water the drainage system needs to cope with.

**24. Box C3 – Simple Method - Volume Discharged Over Duration**

24.1. The simple method assumes the (critical) storm duration is 60 minutes (3,600 seconds); by multiplying the flow control rate in Box A8 by 3.6, this tells us how much water leaves the drainage system during the critical storm duration.

**25. Box C4 – Simple Method - Design attenuation volume**

25.1. This is the amount of water that needs to be stored on site and released at a controlled rate so that flood risk is not increased elsewhere.

**26. Box D1 – Complex Method - Design Attenuation Volume**

26.1. This is the amount of water that needs to be stored on site and released at a controlled rate so that flood risk is not increased elsewhere for the critical storm duration.

26.2. Work this out using industry standard probabilistic rainfall data and catchment descriptors. Ensure the method used matches the figures stated in Part A.

26.3. You may use modelling software to produce the results. You may submit calculations produced by the software as evidence, however this information should be summarised clearly in a cover sheet.

26.4. Failure to summarise results clearly may result in a request for further information.

26.5. The design attenuation volume shall be calculated using the 1 in 100-year rainfall event + 40%<sup>8</sup> (1% Annual Exceedance Probability + 40% allowance for climate change (CC)). The entire attenuation volume should be accommodated within the development area unless clearly achievable off-site arrangements have been identified.

26.6. If any part of the development is subject to an agreement under Section 104 of the Water Industry Act 1991 the WSC may require that attenuation below the 1 in 30-year rainfall event (3.3% Annual Exceedance Probability) event + CC is held in a drainage system without

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<sup>8</sup> If a smaller climate change allowance is proposed for non-residential development, please contact the YHDB

surcharging, any volume between the 1 in 30-year rainfall event + CC and 1 in 100-year rainfall event + CC may be designed to be held in above ground areas designed for such a purpose e.g. swales, public open space or a car park. If a two-tier solution of this type is proposed, please show calculations for the 1 in 30-year event + CC and 1 in 100-year event + CC.

26.7. Please state any assumptions on the cover sheet.

**27. Box D2 – Complex Method - Critical Storm Duration**

27.1. Establish the critical storm duration based on the peak design attenuation volume for the 100-year (1% Annual Exceedance Probability) event + 40% for climate change.

**28. Box E1 – Have You Provided a Suitable Engineering Design?**

28.1. For all developments components must be designed to ensure structural integrity of the drainage system and any adjacent structures or infrastructure under anticipated loading conditions over the design life of the development considering the requirement for reasonable levels of maintenance. The materials, including products, components, fittings or naturally occurring materials, which are specified by the designer must be of a suitable nature and quality for their intended use.

28.2. For minor developments, a general arrangement drawing should be provided showing the line and direction of any proposed drainage system. This should indicate manhole, outfall, flow control details and attenuation proposals. The drawing should be clearly annotated.

28.3. For major developments the following information is requested:

28.4. A topographical survey in metres Above Ordnance Datum (mAOD) which should include existing general site levels, existing intermediate ground levels for proposed off-site drainage works, crown, intermediate and channel level of the nearest adjacent public highway, bank/cover and invert level of the receiving watercourse/sewer/culvert.

28.5. A plan showing the line, dimensions, and levels in mAOD of all existing (and to be retained) and proposed drainage apparatus, flow control details and attenuation systems.

28.6. Cross sections with dimensions and levels in mAOD of all existing and proposed drainage apparatus.

28.7. The engineering standard to be used for construction and materials, e.g. WRC Sewers for Adoption. Where novel proprietary products or bespoke solutions are proposed please submit supporting technical information.

28.8. For sites over 4 hectares or 'masterplan' developments the IDBs encourage a regional SuDS scheme which should drain water into a central storage area which can be drained down at the flow control rate. Ownership or commercial considerations should not influence this approach.

28.9. This list is not exhaustive, if further information is required, the LPA will be asked for further information.

**29. Box E2 – Do You Have a Long-Term Maintenance Plan in Place?**

29.1. For major development, the LPA is required by a development management procedure order (Written Statement HCWA161) to ensure that suitable ongoing maintenance arrangements are in place over the lifetime of the development. The IDB will always ask for a condition to ensure a suitable maintenance plan is in place and will ask the LPA to ensure that any such plan is monitored and if necessary, enforced over the lifetime of the development.

29.2. The IDB does not favour private maintenance arrangements for drainage apparatus and associated land, from a land drainage consent stance any such proposal will result in a high degree of scrutiny from the Board unless the development is likely to remain under single ownership and within a single curtilage over its lifetime. If a private maintenance arrangement is planned, please contact the IDB to discuss your proposals before making your planning submission.

29.3. The following approaches to maintenance arrangements are supported by the IDBs:

- Vesting of drainage apparatus in an IDB or other public RMA
- Adoption of drainage apparatus under section 104 of the Water Industry Act 1991.
- Adoption of drainage apparatus as part of a Section 38 agreement
- Or a combination of the above.

29.4. Please provide a comprehensive statement on how drainage apparatus will be maintained in the future.

*Appendix A – Sustainable Drainage Information Form*

Please Read in Conjunction with Above Guidance

**SUSTAINABLE DRAINAGE INFORMATION**

This form and the associated guidance is provided to assist developers so they might prepare adequate information so the IDB is better able to comment on planning applications within its district / catchment area. There is no statutory requirement to complete this form or provide the suggested supporting information, however failure to provide relevant information in an appropriate form or level of detail may result in the Board objecting to the application on grounds of insufficient information. Determination of planning applications remains a matter for the Local Planning Authority (LPA).

Regardless of the LPA decision, if any part of a development is found to be constructed contrary to the Land Drainage Act 1991 or Local Land Drainage Bylaws this may be an offence.

As well as planning consent the development may require land drainage consent, please see our website for further information.

**PART A - BASIC INFORMATION**

Fill the Box in marked "VALUE" with a number or response

Refer to the accompanying Guidance Sheet about how to complete this form and ensure all supporting information is included

LINE	INFORMATION REQUIRED	VALUE	UNIT	DESCRIPTION
A1	Total area of proposed development	A1	m <sup>2</sup>	Also known as the redline area. Include everything within the redline regardless of surface type. Enter this value.
A2	Existing impermeable area.	A2	m <sup>2</sup>	Enter Existing Impermeable Area Enter this value.
A3	Total new impermeable area	A3	m <sup>2</sup>	Enter New Impermeable Area Enter this value.
A4	Urban Creep Allowance	A4	m <sup>2</sup>	This is for residential development only, enter NA if the development is not residential. This is the value on Line A3 multiplied by 0.1 or 10%. Enter this value = <b>(A3 x 0.1)</b> .
A5	Design impermeable Area	A5	m <sup>2</sup>	This is the value on Line A3 added to the value on Line A4. Enter this value = <b>(A3 + A4)</b> .
A6	Is the design impermeable area greater than 250m <sup>2</sup> ?	A6	YES/NO	If the answer is <b>NO</b> then <b>STOP</b> . The Board does not require any further information. Do not fill in any more of this form and submit it with the information requested so far. Enter this value = <b>(YES or NO)</b> .
A7	Design Discharge Rate	A7	l/s	Enter the Design Discharge Rate To calculate these values see the guidance note. Enter this value = <b>(Greenfield Rate) OR (Brownfield Rate) OR (Greenfield + Brownfield Rate)</b>
A8	Peak Flow Control Rate	A8	l/s	If the value on Line A7 is less than 3.5 then enter 3.5 otherwise enter the value from Line A7. Enter this value = <b>(A7) or (3.5)</b> .
A9	Surface water disposal heirarchy	A9	I/W/S/C	Enter I for Infiltration, <b>W</b> for Watercourse, <b>S</b> for Surface Water Sewer or <b>C</b> for Combined Water Sewer. If discharge is to infiltration go to <b>Line B1</b> otherwise go to <b>Line C1</b> . Enter this value = <b>(I) or (W) or (S) or (C)</b> .

**PART B - DISCHARGE TO INFILTRATION (SOAKAWAY)**

Fill the Line in marked "VALUE" with a number or response

Refer to the accompanying Guidance Sheet about how to complete this form and ensure all supporting information is included

B1	Have you conducted a valid soakaway test?	B1	YES/NO	Have you completed a successful BRE 365 (or approved) soakaway test and did it pass? If the answer is <b>NO</b> use another method of surface water disposal. Enter this value <b>(YES) or (NO)</b> . Go to Line E1.
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**PART C - DISCHARGE TO WATERCOURSE, CULVERT, SURFACE WATER SEWER or COMBINED SEWER - SIMPLE METHOD**

Fill the Line in marked "VALUE" with a number or response

Refer to the accompanying Guidance Sheet about how to complete this form and ensure all supporting information is included

C1	Can you and do you wish to use the simple method?	C1	YES/NO	If you wish to use the simple method, enter <b>YES</b> and go to <b>Line C2</b> . Otherwise enter <b>NO</b> and go to <b>Line D1</b> . Enter this value = <b>(YES) or (NO)</b> .
C2	Simple Method - Rainfall volume over duration including climate change	C2	m <sup>3</sup>	This is the value on Line A5 multiplied by <b>0.06</b> Enter this value = <b>(A5 x 0.06)</b>
C3	Simple Method - Volume discharged over duration	C3	m <sup>3</sup>	This is the value in Line A8 multiplied by <b>3.6</b> . Enter this value = <b>(A8 x 3.6)</b>
C4	Simple Method - Design attenuation volume	C4	m <sup>3</sup>	This is the value on <b>Line C2</b> minus the value on <b>Line C3</b> . Enter this value = <b>(C2 - C3)</b> <b>Go to Line E1</b>

PART D - DISCHARGE TO WATERCOURSE, CULVERT, SURFACE WATER SEWER or COMBINED SEWER - COMPLEX METHOD				
Fill the Line in marked "VALUE" with a number or response				
Refer to the accompanying Guidance Sheet about how to complete this form and ensure all supporting information is included				
D1	Complex Method - Design Attenuation Volume	D1	m3	Enter the design attenuation volume for the 100 year event (1% Annual Exceedance Probability) and include an allowance of 30%* to account for climate change. (*See Guidance) Enter this value.
D2	Complex Method - Critical Storm Duration	D2	min	Enter the critical storm duration. Enter this value.
D4	Go to Line E1			
PART E - DESIGN AND SUBMISSION				
Fill the Line in marked "VALUE" with a number or response				
Refer to the accompanying Guidance Sheet about how to complete this form and ensure all supporting information is included				
E1	Have you provided a suitable engineering design?	E1	YES / NO	Provide a suitable engineering design - see guidance. Enter this value = (Yes or No)
E2	Do you have a long term maintenance plan in place?	E2	YES / NO / NA	Only fill this in for a major development. Provide a statement on how the drainage apparatus will be maintained in the future. Enter this value = (Yes, No or NA)
E3	Have you prepared all of the supplementary documents and evidence requested in the guidance document?	E3	YES/NO	Ensure all the information requested is submitted to the local planning authority to support your application Enter this value = (Yes or No)

The applicant understands that by following the advice given, the Internal Drainage Boards (IDBs) shall under no circumstances whatsoever be liable to the applicant, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any loss of profit, or any indirect or consequential loss arising under or in connection with advice given or procedures followed.

Name of Applicant / Business Name of Developer	
Address of Applicant	
Name of Agent (If authorised to act on behalf of applicant)	
Telephone Number(s) of Applicant	
Email Address of Applicant	
Address of Agent	
Agent Telephone Number(s)	
Agent Email Address	
Signed on Behalf of Developer	
Name	
Position	
Date	

FAO. [REDACTED]  
Fenwick Solar Farm  
By email: [REDACTED]

[REDACTED]  
Business and Environmental Services  
East Block  
County Hall  
Racecourse Lane  
Northallerton  
DL7 8AD

Tel: [REDACTED]  
Email: [REDACTED]

Our Ref [REDACTED]  
Your Ref Fenwick Solar Farm Scoping Response

Date 24 October 2023

Dear Sir/Madam

### **Fenwick Solar Farm – Scoping Report**

Thank you for consulting North Yorkshire Council on the scoping report for the above project.

Our responses on the various chapters are as follows:

#### **Noise**

In terms of potential for noise impacts (Chapter 11), there are no noise sensitive receptors identified northwards in the administrative area of North Yorkshire Council when applying a 500m buffer (Figure 11-1). We do not envisage significant noise impacts beyond 500m and, therefore, there are no objections.

The proposed grid connection is via the existing National Grid Marsh Substation to the south of the site.

#### **Landscape and Visual Amenity**

The project comprises the proposed construction, operation and decommissioning of a ground mounted solar farm which will cover 323 ha (excluding grid connection corridor) which is located on land to the east of Fenwick and immediately south of the River Went. The Grid connection corridor extends southwards to the Thorpe Marsh Substation.

The site red line boundary is within Doncaster City Council planning area. The landscape and visual study area is likely to extend northwards within the North Yorkshire Council planning area.

These comments principally relate to Chapter 10 Landscape and Visual in the Applicant's EIA Scoping Report and likely effects or considerations within the North Yorkshire Council planning area. Comments may overlap with other topic areas such as Cultural Heritage, Ecology, Noise, Soils and Agricultural Land, Cumulative Effects, Glint and Glare.

We would agree with the EIA Scoping Report, that Landscape and Visual Amenity, Glint and Glare should be 'scoped in' and considered within the EIA.



There is potential for significant adverse landscape and visual effects due to the scale and nature of the development.

Landscape considerations within the EIA / LVIA should include:

- Landscape and visual effects (including tranquillity, glint and glare, night-time effects, cumulative).
- The overall scale and nature of the proposed development.
- The expected lifespan of at least 40+ years (long-term land-use change)
- Wider landscape strategy (green infrastructure and connectivity).
- Long-term maintenance and management.
- Decommissioning and restoration.

The landscape strategy and mitigation should be proportionate to the scale of the development.

Given the large scale of the proposed development, we would strongly encourage the Applicant to seek out opportunities to protect, enhance and better join up existing Green Infrastructure, to create new Green Infrastructure, in addition to incorporation of other measures to mitigate or minimise the consequences of development.

In relation to landscape and visual amenity we are generally supportive of an LVIA methodology set out at Chapter 10.7 undertaken to GLVIA3, together with the other listed guidance and publications.

We also have the following comments:

Description of the Proposed Development – Chapter 2.3 describes flexibility built into the DCO for the type and arrangement of panels, equipment and cabling. These uncertainties are reiterated at 10.8.6. However, we would recommend that sufficient design, layout and detail is needed within the EIA to ensure that local effects can be sufficiently considered and mitigated.

Biodiversity and Landscaping – Paragraphs 2.3.50 and 2.4.15 describes both biodiversity and landscaping indiscriminately. While a coordinated approach to biodiversity and landscape matters is generally welcome, Landscape (effects, mitigation, management) and Biodiversity Net Gain (BNG) should be clearly and separately explained in the EIA and any supporting strategies or framework management documents.

Glint and Glare – Glint and glare has potential to affect landscape and visual amenity. We would wish to see clear explanation of proposed methodology for the Glint and Glare Assessment.

Study Area – Within North Yorkshire, we would recommend an initial 5km radius study area for the LVIA, where linked to direct visual effects from the proposed Solar PV Site. This may be further refined as the scheme evolves through consultation with the LPA. The Applicant should also consider a wider landscape study area for cumulative effects.

Summary of Elements Scoped In and Scoped Out 10.9 – this is assumed to be inaccurate given the preceding list of Key Landscape and Visual Receptors at Table 10-1 and Potential Effects and Mitigation at 10.6.

Existing Trees and Vegetation - There is potential for the development to adversely affect existing boundary trees and vegetation. Appendix B: Preliminary ecological Appraisal Report illustrates and lists a number of boundary trees and hedgerows within and adjacent to the site. This should be reviewed, protected and retained where appropriate. A tree survey and arboricultural impact assessment to BS5837:2012 will be required to inform the scheme layout to demonstrate sufficient stand-off and protection. This is important within North Yorkshire if boundary vegetation is needed for ongoing screening of the site.

We would wish to see a seasonal shading plan included within the EIA and the assessment to consider how this might affect future viability of the scheme and risk of further tree removal. There should be certainty that site vegetation would be retained during the operational maintenance management period and not later removed due to potential shading.

Temporary access, storage and working areas – these should be taking into account as part of the assessment.

Visual Assessment and Representative Viewpoints - The quantity and location of representative viewpoints should be agreed with the Planning Authority.

The principle of using representative viewpoints to illustrate the experience of different types of visual receptor is acceptable, however the assessment should aim describe and assess the full effects of the development (not limited to a summary of viewpoints) and to explain the scale and geographical extent of effects.

Photographs and Photomontages – should be in-line with Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals (Landscape Institute, 2019).

We would wish to see photomontages to explain how adverse effects will be mitigated over time. Photographs should include winter views where possible to explain the worst-case scenario.

Assessment of Tranquillity – There is potential for significant adverse noise effects associated with construction, decommissioning activities, and operational noise arising from static plant installations (such as inverter stations and energy storage containers). Consideration should be given to assessment of tranquillity and effect on local character and setting, particularly in relation to local sensitive receptors such as residential properties, PROW, local farmsteads.

Cumulative Effects – the LVIA should consider cumulative landscape and visual effects.

Landscape Proposals, Mitigation, Maintenance and Aftercare – We would wish to see mitigation proposals considered as part of a landscape strategy which includes a masterplan and which considers Green Infrastructure in a wider context.

Initially, the Landscape Strategy should focus on overarching principles with clear aims and objectives.

Objectives should be clear and include landscape, biodiversity and green infrastructure. Landscape and visual mitigation should drive the strategy and be linked through to the management plan (rather than just a maintenance schedule for BNG).

Landscape proposals and mitigation should have regard for and contribute to the wider landscape character, connectivity of green infrastructure and sustainable transport (Selby policy SP12, SP18, SP19, ENV1).

The applicant should consider a wider strategic approach to landscape proposals and mitigation of cumulative effects and how this would contribute to Natural England's 15 Green Infrastructure Principles of 'Why', 'What' and 'How'

(<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Principles/GIPrinciples.aspx>).

Link to Natural England's Green Infrastructure Principles and the England Green Infrastructure Mapping:  
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Principles/GIPrinciples.aspx>

Long-term maintenance and management should be considered, particularly where this is needed for ongoing mitigation, screening and biodiversity benefit. Sufficient stand-off distance should be provided from existing trees and vegetation where these are to be retained and protected and to allow maintenance access. Landscape management and mitigation should be considered for the life of the scheme 40+ years (not shorter BNG timescales).

The Applicant should consider offsite mitigation to compensate for and offset residual adverse effects where this cannot be achieved within the site.

Decommissioning and Restoration – consideration should be given to how this would be funded and secured over a long timescale.

## **Ecology**

No comments.

## **Transport and Access**

No comments. It likely that vehicles to the site will access it by using A19 or the A614 from the M62 so will have little effect on the road network in the North Yorkshire Council administrative area.

## **Public Rights of Way**

We have checked the North Yorkshire Definitive Map, alongside Doncaster Metropolitan Council's Walkers Map. In conclusion, we are happy that we have no Public Rights of Way concerns that this development would impact upon any "cross-border" routes in the area.

## **Heritage/Archaeology**

No comments.

## **Public Health**

Thank you for providing the opportunity for North Yorkshire Public Health to provide comment on the Scoping Report.

We acknowledge that the development itself is outside the North Yorkshire boundary but its proximity does leave scope for impacts to occur within the North Yorkshire area. We have reviewed the Scoping documents and note that no standalone Health Impact Assessment is being proposed, instead Health impacts are to be considered within each of the Sections of the report. If this is the approach that is taken we would request that the Health impacts are made explicitly clear within each of the sections to help with reviewing future documents.

When reviewing the Socio-Economic Impacts the chapter doesn't consider how the impacts of the workforce during the construction, lifetime and decommissioning, is being considered and mitigated. A large influx of people can result in increased pressure on GP and Health Care services and appropriate consideration should be given to this in the socio-economic chapter. In addition, this should also include the Cumulative impact of the increased workforce that this development will have over its duration alongside those development that have been identified to give rise to cumulative impacts. Furthermore, North Yorkshire have an ageing demographic profile and due regard should be given to this demographic within the ES as well as the population as a whole. Therefore, in the absence of a specific Health Impact Assessment, a specific paragraph within the socio-economic chapter describing the impacts on this population group and how these are to be prevented and mitigated, should be included in the Environmental Statement.

## **Local Lead Flood Authority**

No comments received to date.

## **Cumulative Impact Assessment**

The cumulative impact assessment is in line with the PINS advice note. We anticipate working closely with the applicant on this matter as the assessment progresses and have no further comment at this time.

Should you have any further queries please don't hesitate to contact Michael Reynolds on the above details or contact the author of the section directly should you have their details.

Yours faithfully,

[REDACTED]

Senior Policy Officer (Infrastructure)

Our ref: SE 605 153

Your ref: 23/01167/CON  
Development Management,  
Civic office,  
Waterdale,  
Doncaster,  
South Yorkshire,  
DN1 3BU

FAO: [REDACTED]

Dear [REDACTED]

[REDACTED]  
Planning and Development  
Calder Park House, Calder View  
Calder Business Park  
Wakefield WF2 7UA  
[REDACTED]

June 27 2023

**23/01167/CON - Fenwick Solar Farm - Application by Fenwick Solar Project Limited (the Applicant) for an Order granting Development Consent for the Fenwick Solar Farm (the Proposed Development)**

National Highways has reviewed the documents accompanying the planning pre-application [23/01167/CON], for a proposed solar farm.

Please see the attached Technical Memorandum (DEVSY0124 TM001).

This review has highlighted the following:

- While National Highways cannot directly comment on the potential impact any future site decommissioning would incur at the Strategic Road Network (SRN), moving forward, should consent be granted for the proposed DCO, National Highways would look to implement a planning condition that would secure the delivery of a Decommissioning Management Report to secure and mitigate any potential impact at the SRN at the point of site decommissioning.
- National Highways acknowledge that any impact associated with the operation and maintenance of the site can likely be scoped out of subsequent highway assessments, once these values are confirmed by the Applicant as part of a formal submission.
- The locations of any operational or construction site access will need to be confirmed with National Highways moving forwards.
- National Highways will require any planning assessment to engage with and adhere to guidance contained within DfT Circular 01/2022: The Strategic Road Network and the Delivery of Sustainable Development.
- The impact of the proposed development at the SRN over both the operational and construction phase must be understood in terms of absolute two-way flows over both morning / evening network peak hours. This is opposed to either total daily flows or proportional flows (percentage increase) in relation to baseline flows at any specific junction.

- At the point at which development highway impact can be agreed with National Highways, the composition of any junction specific modelling, if necessary (inclusive of future year growth rates, inter alia), can be agreed at this point.
- National Highways would expect that the standard procedure for [AIL]s will be followed by the Applicant, however, it is noted that potential carriageway width, height and weight restrictions for the movement of such vehicles will need to be discussed and agreed with National Highways. As such, National Highways would advise that the Applicant directly discusses any matters pertaining to AIL movements with the National Highways Abnormal Indivisible Loads team ([AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk](mailto:AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk)).
- National Highways will require confirmation of the expected 'peak' arrival / departure profile of construction vehicles, including construction staff, deliveries and associated movements during an identified 'peak' construction period, and how long this period may continue for, opposed to the generation of average movements or total daily / monthly movements. This is to ensure that any potential trip generation impact at the SRN can be accurately quantified as the development advances through the construction phase. This matter can be controlled through the CTMP.
- If desired by the Applicant, the principle of utilising first principles trip generation data is acceptable for the proposed scheme. Nevertheless, further detail should be provided by the Applicant in relation to the specific first principles data underpinning any proposed development trip generation. For reference, National Highways would expect the first principles data to reflect a comparable solar development of comparable scale in a geographical location that largely reflects rural nature of the scheme area and the scope of construction considered.
- The principle of utilising a gravity model to determine the proposed distribution of construction staff would be recommended by National Highways, however, National Highways would need to examine the model methodology in detail, i.e. via its original MS Excel format, before any distribution data can be accepted fully. Moreover, consideration will need to be given to whether, and in what proportion, workers will originate from the local area or whether they will be staying in local hotels immediate to the scheme sites.
- In addition to the distribution of construction staff, the Applicant will need to confirm the anticipated distribution of HGVs associated with the delivery of construction materials and associated infrastructure.
- National Highways acknowledge that where the development is evidenced to potentially incur a material impact at an SRN junction, appropriate collision analysis may be required.
- Where the development is evidenced to potentially incur a material impact at an SRN junction, an appropriate consideration of operational impacts and, if required, mitigation strategy, will need to be agreed with National Highways.

- The highway assessment study area should extend to any SRN junction where a potential impact needs to be considered (to aid discussions National Highways suggest 30 two-way trips being a starting point for consideration).
- A CTMP will need be developed and issued alongside any detailed application submitted. The details of what should be included within the CTMP are identified by National Highways within this TM.
- National Highways consider it unlikely that matters relating to potential glint and glare impacts will incur any safety issue at the SRN for highway users. Nevertheless, National Highways welcome confirmation that the effect of glint and glare on the immediate landscape will be considered within forthcoming planning documentation.

I trust this response is helpful, but should you require any further information, please do not hesitate to contact me.

Yours sincerely

  
**Spatial Planning Patch Manager South Yorkshire  
Planning and Development  
National Highways**

# Fenwick Solar Farm Project – Scoping Review

Prepared for: [REDACTED]  
Prepared by: [REDACTED]  
Date: 26<sup>th</sup> June 2023  
Case Reference: DevSY0124  
Document Reference: TM001  
Reviewed/approved by: [REDACTED]

Limitation: This document has been prepared on behalf of, and for the exclusive use of National Highways, and is subject to, and issued in accordance with, the provisions of the National Spatial Planning Contract. We accept no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

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## Overview

Jacobs Systra Joint Venture [JSJV] (on behalf of National Highways) has undertaken a review of an Environmental Impact Assessment [EIA] scoping document (dated June 2023) submitted by Boom Power Ltd [the Applicant] and prepared by AECOM in reference to the proposed 'Fenwick Solar Project'. The project will represent a Nationally Significant Infrastructure Project and therefore will require consent through a Development Consent Order [DCO].

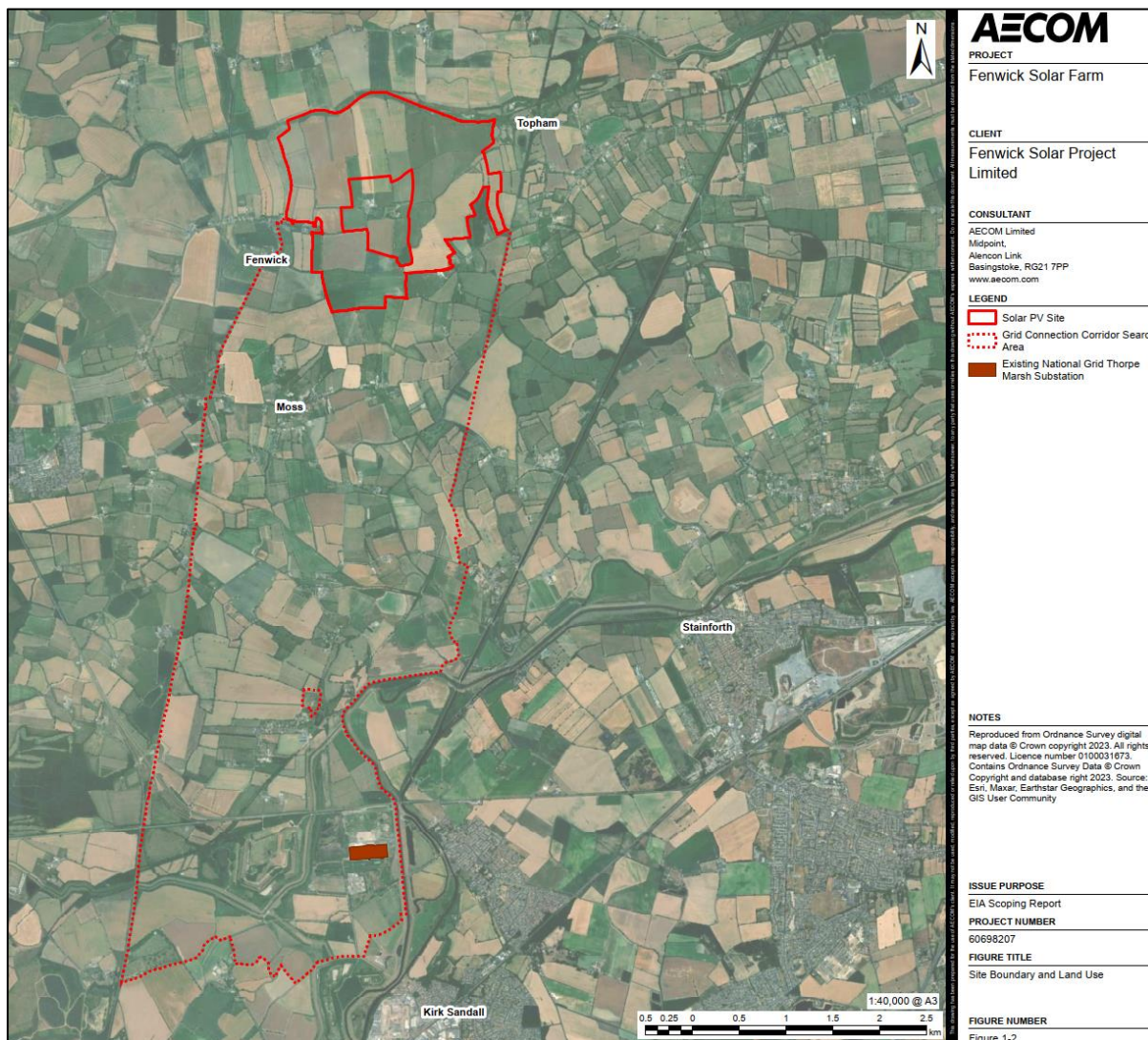
This JSJV Technical Memorandum [TM] comments on the suitability of the EIA scoping documentation with discussion provided in relation to whether the document suitably considers the impact of the development proposals upon the Strategic Road Network [SRN] across both the operational and construction phases of the development.

## Site Location

The approximate site area and its proximity to the SRN is detailed within Figure 1 below.



**Figure 1 –Site Location**



*(Extracted from EIA Figure 1.2)*

In line with the redline boundary provided, the most immediate section of the SRN to the site is the M62 mainline carriageway between junctions 34 and 35, which is situated approximately 4km north of the site. In addition, the site lies approximately equidistant between the M18 (to the east) and the A1(M) mainlines (to the west).

## Proposed Development

The Applicant wishes to develop an approximate site of 323 hectares for a solar farm scheme with accompanying battery energy storage in Fenwick, north of Doncaster. The Solar Photo Voltic site is approximately centred on National Grid Reference SE 60658 16767.

## Decommissioning

The design life of the scheme is proposed to be at least 40 years, although the design life could be expected to be longer, depending on the condition of equipment. As such, while JSJV could not directly comment on the potential impact any future site decommissioning would incur at the SRN, moving forward, should consent be granted for the proposed DCO, National Highways would look to implement a planning condition that would secure the delivery of a Decommissioning Management Report

to secure and mitigate any potential impact at the SRN at the point of site decommissioning.

## Transport & Access

### Proposed Access Configuration

For both the operational and construction phases of the proposed development, National Highways will require confirmation of the site access proposals. Given the potential scale of the site, National Highways will need to understand the location of any temporary construction compounds.

JSJV acknowledge that access to the operational site is likely to be determined as the scheme design progresses, following further consultation with relevant authorities. At present, the high-level scheme design places a significant distance between the scheme and the SRN, and as such, JSJV note it is unlikely that any direct connection with the SRN will be sought by the Applicant.

### Planning Policy

National Highways will require any planning assessment to engage with and adhere to guidance contained within DfT Circular 01/2022: The Strategic Road Network and the Delivery of Sustainable Development. Circular 01/2022 sets out the way in which National Highways will engage with the development industry, public bodies and communities to assist the delivery of sustainable development. The circular is applicable to the whole of the SRN, comprising the trunk motorways and all-purpose trunk roads in England, including those roads managed by the design, build, finance and operate companies.

### Baseline Traffic Flows

#### Baseline Conditions

National Highways will require the impact of the proposed development at the SRN over both the operational and construction phase to be understood in terms of absolute two-way flows over both morning / evening network peak hours. This is opposed to either total daily flows or proportional flows (percentage increase) in relation to baseline flows at any specific junction. As such, the appropriateness of any network baseline flows will only be commented on by JSJV at such a point whereby the proposed development is considered to incur a material impact at an SRN junction, and subsequent junction modelling is required, if such a scenario arises.

Moreover, at the point at which development highway impact can be agreed with National Highways, the composition of any junction specific modelling, if necessary (inclusive of future year growth rates, inter alia), can be agreed at this point.

#### Collision History

Should the number of trips generated by the proposed site as part of either the operational or construction phases of the development be considered to incur a material impact at the SRN, National Highways will require appropriate collision analysis to be undertaken at any respective SRN junctions where these impacts are incurred.

## Trip Generation

### Operational Traffic Generation

Once operational, JSJV acknowledge that the development is likely to be largely unmanned, and will only generate a limited number of vehicle trips through routine maintenance and site inspections. The frequency of any traffic movements associated with the operational aspect of the development will however need to be confirmed by the Applicant as part of a formal submission to ensure that the potential impact of the site at the SRN can be scoped out of any future highway assessments.

### Abnormal Indivisible Loads

JSJV would expect that the standard procedure for [AIL]s will be followed by the Applicant, however, it is noted that potential carriageway width, height and weight restrictions for the movement of such vehicles will need to be discussed and agreed with National Highways. As such, JSJV would advise that the Applicant directly discusses any matters pertaining to AIL movements with the National Highways Abnormal Indivisible Loads team ([AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk](mailto:AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk)).

### Construction Traffic Generation

National Highways would expect that the primary means of controlling construction vehicle traffic would be through an approved Construction Traffic Management Plan [CTMP].

With reference to the trip generation methodology associated with the construction phase of the proposed development, JSJV would recommend that the following is considered by the Applicant:

- If desired by the Applicant, the principle of utilising first principle trip generation data is acceptable for the proposed scheme. Nevertheless, further detail should be provided by the Applicant in relation to the specific first principles data underpinning any proposed development trip generation. For reference, JSJV would expect the first principles data to reflect a comparable solar development of comparable scale in a geographical location that largely reflects rural nature of the scheme area and the scope of construction considered. Until this clarification is provided, any first principles data cannot be accepted.
- National Highways would welcome confirmation when construction staff will arrive and depart the construction site(s) in relation to proposed shift patterns and the AM / PM SRN peak periods. This matter can be controlled through the Construction Traffic Management Plan [CTMP].
- National Highways will require confirmation of the expected 'peak' arrival / departure profile of construction vehicles, including construction staff, deliveries and associated movements during an identified 'peak' construction period, and how long this period may continue for, opposed to the generation of average movements or total daily / monthly movements. This is to ensure that any potential trip generation impact at the SRN can be accurately quantified as the development advances through the construction phase. This matter can be controlled through the CTMP.
- JSJV acknowledge that where the development is evidenced to potentially incur a material impact at an SRN junction, appropriate collision analysis may be required.

- Where the development is evidenced to potentially incur a material impact at an SRN junction (to aid discussions JSJV suggest 30 two-way trips being a starting point for consideration), an appropriate assessment of operational impacts and, if required, mitigation strategy, will need to be agreed with National Highways.

JSJV consider that the following parameters need to be taken into account in relation to the submission of a CTMP:

- Identification of the approved haul routes to site and identification of measures to prevent the use of any unauthorised routes;
- Identification of the site access strategy;
- Identification of the proposed works programme by construction task;
- Identification of workforce numbers for the site and details of workforce travel arrangements;
- Details of site working hours and details of any exceptions (concrete pours etc)
- Measures to minimise wherever possible the use of public roads at peak periods whenever practicable (Morning and Evening Peak Hours and school start / finish times);
- Details of measures to reduce the number of delivery trips to site such as a combination of consolidated ordering, rationalising suppliers and consolidated deliveries;
- Details of measures to reduce on-site waste such as recycling and re-use of materials to minimise the number of collections from site;
- Vehicles carrying soil and other dusty materials to be fully sheeted when travelling to or leaving site;
- Use of an approved mechanical road sweeper to clean the surrounding road network of any mud or debris deposited by site vehicles. The road sweeper should be available whenever needed;
- Measures to safely manage pedestrians;
- Details for any temporary traffic management and warning signs;
- Details of a site liaison officer who will act as point of contact for the CTMP; and
- Details regarding the monitoring the success of the CTMP and remedial measures which may be implemented should the CTMP not be achieving stated outcomes.

JSJV would welcome continued engagement in the production of a Final CTMP due to the potential impact that this site may have upon the SRN. Moving forward, JSJV acknowledge that the production of a Final CTMP can be conditioned on any planning permission granted for the proposed site.

### Construction Traffic Distribution

With reference to the trip distribution methodology associated with the construction phase of the proposed development, JSJV would recommend that the following is considered by the Applicant:

- The principle of utilising a gravity model to determine the proposed distribution of construction staff would be recommended by JSJV, however, JSJV would

need to examine the model methodology in detail, i.e. via its original MS Excel format, before any distribution data can be accepted fully. Moreover, consideration will need to be given to whether, and in what proportion, workers will originate from the local area or whether they will be staying in local hotels immediate to the scheme sites.

- In addition to the distribution of construction staff, the Applicant will need to confirm the anticipated distribution of HGVs associated with the delivery of construction materials and associated infrastructure.

## Glint & Glare

Considering the distance between the location of the proposed development and the SRN, JSJV consider it unlikely that matters relating to potential glint and glare impacts will incur any safety issue at the SRN for highway users. Nevertheless, JSJV will require confirmation that the effect of glint and glare on the immediate landscape will be considered within forthcoming planning submissions, particularly as the specific locations of scheme buildout remain unconfirmed.

## Summary and Conclusions

On the basis of this review, the recommendation to National Highways in relation to this development proposals is:

**Pre-application / Scoping Response** – comments are made on the pre-application / scoping in order to assist defining an appropriate assessment of the Strategic Road Network.

This review has highlighted the following:

- 1) While JSJV cannot directly comment on the potential impact any future site decommissioning would incur at the SRN, moving forward, should consent be granted for the proposed DCO, National Highways would look to implement a planning condition that would secure the delivery of a Decommissioning Management Report to secure and mitigate any potential impact at the SRN at the point of site decommissioning.
- 2) JSJV acknowledge that any impact associated with the operation and maintenance of the site can likely be scoped out of subsequent highway assessments, once these values are confirmed by the Applicant as part of a formal submission.
- 3) The locations of any operational or construction site access will need to be confirmed with National Highways moving forwards.
- 4) National Highways will require any planning assessment to engage with and adhere to guidance contained within DfT Circular 01/2022: The Strategic Road Network and the Delivery of Sustainable Development.
- 5) The impact of the proposed development at the SRN over both the operational and construction phase must be understood in terms of absolute two-way flows over both morning / evening network peak hours. This is opposed to either total daily flows or proportional flows (percentage increase) in relation to baseline flows at any specific junction.
- 6) At the point at which development highway impact can be agreed with National Highways, the composition of any junction specific modelling, if necessary (inclusive of future year growth rates, inter alia), can be agreed at this point.

- 7) JSJV would expect that the standard procedure for [AIL]s will be followed by the Applicant, however, it is noted that potential carriageway width, height and weight restrictions for the movement of such vehicles will need to be discussed and agreed with National Highways. As such, JSJV would advise that the Applicant directly discusses any matters pertaining to AIL movements with the National Highways Abnormal Indivisible Loads team (AbnormalIndivisibleLoadsTeam@nationalhighways.co.uk).
- 8) National Highways will require confirmation of the expected 'peak' arrival / departure profile of construction vehicles, including construction staff, deliveries and associated movements during an identified 'peak' construction period, and how long this period may continue for, opposed to the generation of average movements or total daily / monthly movements. This is to ensure that any potential trip generation impact at the SRN can be accurately quantified as the development advances through the construction phase. This matter can be controlled through the CTMP.
- 9) If desired by the Applicant, the principle of utilising first principles trip generation data is acceptable for the proposed scheme. Nevertheless, further detail should be provided by the Applicant in relation to the specific first principles data underpinning any proposed development trip generation. For reference, JSJV would expect the first principles data to reflect a comparable solar development of comparable scale in a geographical location that largely reflects rural nature of the scheme area and the scope of construction considered.
- 10) The principle of utilising a gravity model to determine the proposed distribution of construction staff would be recommended by JSJV, however, JSJV would need to examine the model methodology in detail, i.e. via its original MS Excel format, before any distribution data can be accepted fully. Moreover, consideration will need to be given to whether, and in what proportion, workers will originate from the local area or whether they will be staying in local hotels immediate to the scheme sites.
- 11) In addition to the distribution of construction staff, the Applicant will need to confirm the anticipated distribution of HGVs associated with the delivery of construction materials and associated infrastructure.
- 12) JSJV acknowledge that where the development is evidenced to potentially incur a material impact at an SRN junction, appropriate collision analysis may be required.
- 13) Where the development is evidenced to potentially incur a material impact at an SRN junction, an appropriate consideration of operational impacts and, if required, mitigation strategy, will need to be agreed with National Highways.
- 14) The highway assessment study area should extend to any SRN junction where a potential impact needs to be considered (to aid discussions JSJV suggest 30 two-way trips being a starting point for consideration).
- 15) A CTMP will need be developed and issued alongside any detailed application submitted. The details of what should be included within the CTMP are identified by JSJV within this TM.
- 16) JSJV consider it unlikely that matters relating to potential glint and glare impacts will incur any safety issue at the SRN for highway users. Nevertheless, JSJV welcome confirmation that the effect of glint and glare on the immediate landscape will be considered within forthcoming planning documentation.

An aerial photograph of a vast solar farm, showing rows of solar panels stretching towards the horizon. The lighting is dramatic, with long shadows cast across the panels, creating a strong sense of perspective and depth. The overall color palette is dark and monochromatic, emphasizing the geometric patterns of the solar array.

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