

# Technical Note

<b>To</b> Natural England	<b>Project name</b> East Yorkshire Solar Farm	<b>PINS Project number</b> EN010143	<b>The Applicant</b> East Yorkshire Solar Farm Limited
<b>Subject</b> Habitats Regulations Assessment	<b>Date</b> 8 July 2024	<b>Reason for issue</b> Response to NE comments	

## 1. Introduction

This note is prepared to address several of the comments made by Natural England received on 14 June 2024 (Natural England reference 411969 - DAS/A008504), regarding the East Yorkshire Solar Farm HRA. Many of the comments provided by Natural England have been addressed in the updated HRA Revision 01 submitted at Deadline 2 of the Examination (examination library reference **[REP2-012]** and **[REP2-013]**). This note provides further explanation to the Applicant's position on the matters raised by Natural England in their HRA review. Unless stated otherwise, all references to the HRA document within this technical note are to the HRA Revision 01 submitted at Deadline 2 of the Examination **[REP2-012]**.

The Applicant is seeking Natural England's agreement on the HRA taking into account the information provided below.

## 2. Pink footed goose

<b>Natural England comment</b>	<b>Applicant response</b>
It is our advice that the highest peak count is used to calculate the % values given in Table 28 and should also be used as the highest peak count in informing the parameters of the mitigation area.	The % values presented in Table 28 of the HRA, and now also included within Table 12 of the HRA, identify the populations potentially at risk from the impact pathway of loss of functionally linked habitat. As such, the Applicant considers it appropriate to use the peak count observed from the solar PV areas as these

Natural England comment	Applicant response
	<p>will be the birds that will be subjected to the loss of functionally linked land. This is reflected in the 2.03% of the Humber Estuary population (based on a peak count of 515 in Solar PV Area 2a, in October 2023) presented in Tables 12 and 28 of the HRA.</p> <p>In the HRA work, and as discussed in meetings with Natural England prior to the DCO Application submission, the Applicant has not based the assessment of mitigation area requirement on a peak population size or ‘bird days’ approach, but on the size of the plots where peak counts of pink-footed goose, at risk of being displaced, were recorded (see paragraph 8.4.14 of the HRA), on the basis that this would cover variations in peak count. As such, changes in peak count would not trigger the need for further mitigation unless the maximum field size in which those populations were recorded was significantly greater. The Applicant does not consider it necessary to amend the calculation approach.</p>
<p>It should be considered that pink-footed geese numbers identified as using the mitigation area for feeding are at risk of being displaced by other birds which currently use the area to be developed, therefore their numbers are still relevant to consider in the mitigation design... We advise that further assessment is provided around whether the area due to be managed for pink-footed goose remains adequate.</p>	<p>The area of mitigation provision is based on field size rather than peak counts so it is not precisely tied to a numerical ‘carrying capacity’. While the Goose Mitigation Zone has supported pink footed goose for a couple of months across the non-breeding seasons between 2022/23 and 2023/24, it is currently farmed in a manner that is not specifically tailored to the interests of the species and is therefore only suitable by accident. Moreover, the two seasons of survey show that pink footed goose numbers are highly variable with use being sporadic, rather than consistently high numbers throughout the season. Peaks of use of the fields in the mitigation area do not overlap in occurrence with significant numbers of pink-footed geese occurring elsewhere within the Order limits. As such, there is no indication that there will be separate flocks or individuals competing for the same resources simultaneously</p>

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	<p>but rather these are members of the same broad population spread across the total survey area. Therefore, there is no evidence that significant competition for resources between flocks of pink footed goose would occur.</p> <p>Moreover, while 15ha will be farmed specifically for pink footed goose on a rotation, it has been agreed with Natural England previously that the 28.75ha of wet grassland being provided for golden plover will also be of foraging value to pink footed goose, and the remainder of the Goose Mitigation Zone in which the 15ha rotation is located (totalling c. 65ha) will continue to be farmed as it is at present and will thus remain suitable.</p> <p>Therefore, even with the higher numbers of pink footed goose recorded in the most recent survey season we consider that the long-term provision of 15ha of land of guaranteed suitability for pink footed goose, coupled with the provision of 28.75ha of wet grassland, and the preservation of the remaining 65ha of the Goose Mitigation Zone, maintained for the duration of the Scheme operation, would provide a sufficient increase in the value of the Goose Mitigation Zone that it could accommodate the pink-footed goose population recorded during the surveys..</p>

### 3. Golden plover

Natural England comment	Applicant response
<p>We note that the amount of the mitigation area due to be managed for golden plover has increased from 15ha to 28.75ha. We assume this is due to higher numbers of golden plover recorded in the 2023/2024 surveys.</p>	<p>For clarity, as discussed in meetings with Natural England prior to the DCO Application submission, the Applicant has not based the assessment of mitigation area requirement on a peak population size or ‘bird days’ approach, but on the size of the</p>

Natural England comment	Applicant response
	<p>plots where peak counts of golden plover were recorded; on the basis that this would cover variations in peak count. The increase in golden plover mitigation provision is due to the fact that the field with the largest counts in the 2023-24 survey was larger than the 15ha used to guide the initial mitigation design (see paragraph 8.4.14 of the HRA).</p>
<p>It should also be clarified as to whether the 28.75ha intended as mitigation for golden plover excludes a buffer next to the field edges (as noted in our Relevant Representations response, this should be around 150m), or whether the 28.75ha is the total usable area.</p>	<p>The 28.75ha does not include a large buffer adjacent to the PV locations at the southern boundary of the Golden Plover Mitigation Zone. The 28.75ha intended as mitigation for golden plover is set on the edge of the Order limits, minimising its boundaries with solar PV areas and thus removing the need for a blanket 150m buffer to ensure the area is not disturbed. Forming a large, contiguous area the Golden Plover and Goose Mitigation Zones allows for adequate foraging and roosting space for both species within the centre of fields, away from boundary features and adjoining Solar PV Areas, creating a sufficient 'in-field' buffer to ensure usage and minimise any potential displacement. A substantial buffer (such as 150m) from the PV panels to the south will not be required as there will be no disturbance generated from the PV panels. There will be an offset distance of 150m from any nearby solar infrastructure with material disturbance potential (through the presence of people or noise generation), namely the Field Stations. This measure is specified within the Framework Landscape and Ecological Management Plan (LEMP) <b>[REP1-064]</b> (paragraphs 6.1.79 and 6.1.88) secured by Requirement 6 of Schedule 2 of the Draft DCO <b>[REP1-006]</b>.</p>

## 4. Lapwing

Natural England comment	Applicant response
<p>The peak count of lapwing within the solar PV area has increased from 51 in the 2022/2023 surveys to 274 in the 2023/2024 surveys. Lapwing have the same habitat requirements as golden plover, and they will compete for the same invertebrate food, therefore, further justification is required to demonstrate that the 28.75ha of wet grassland will produce enough invertebrate prey to provide for the combined peaks of both lapwing and the golden plover.</p>	<p>The habitat currently used by golden plover and lapwing for roosting and feeding is not specifically managed for either species but is suitable only incidentally. They could be rendered unsuitable at any time by changes in farming practices, a pattern which is reflected across the wider landscape used by both species. Moreover, the two seasons of survey show that lapwing numbers on site are highly variable with use being sporadic (rather than consistent, or consistently high numbers throughout the season) indicating that their use of these fields is opportunistic and these fields form a fraction of a much larger resource, within the wider landscape beyond the Order limits, that they use for foraging and roosting, when not utilising the principal habitats of importance within the Lower Derwent Valley and Humber Estuary designated sites complex. The Scheme will provide not just 28.75ha of suitable habitat for golden plover and lapwing, but 28.75ha of <u>optimal</u> habitat for both species for a committed long-time period during the Scheme operation (40 years). Looked at from the point of view of overall suitable resource in the landscape over a long time-period the Applicant therefore considers that this habitat provision would offset any interspecific competition that may arise in particular years when numbers of lapwing are higher, by providing a considerably enhanced foraging and roosting resource year-in-year out.</p>
<p>Please find attached a paper on winter field use by lapwing and golden plover which may be used to support this assessment, in which a ‘bird-days’ methodology is used to calculate the area of land required to support these birds.</p>	<p>In the HRA work, and as discussed in meetings with Natural England prior to the DCO Application submission, we have not based our assessment of mitigation area requirement on a peak population size or ‘bird days’ approach, but on the size of the plots where peak counts birds were recorded. The Applicant</p>

Natural England comment	Applicant response
	does not consider it necessary to amend the calculation approach.

## 5. Other comments

Natural England comment	Applicant response
<p>We note that Footnote 23 states that the early October surveys are to be referred to as September surveys. We do not consider that the surveys should be referred to as the incorrect month, and that they should be defined by the correct month/date that they were undertaken. We advise instead that if in September 2023, surveys were not undertaken, that further justification should be provided around why this is not considered to be a significant limitation.</p>	<p>This terminology was intended to confirm that biologically there is no distinction between a survey on (for example) 29<sup>th</sup> September and one on 2<sup>nd</sup> October as they effectively cover the same period being so close together. To avoid confusion over why there were 'additional' surveys in October the Applicant has retained a reference to the first as the 'September' survey but has added further clarification as to why this does not affect the robustness of the survey.</p>
<p>We note that 8.1.6 states that there is little observable effect below 55dB LAmax, and that as LAeq is always lower than LAmax, that 55dB LAeq will be used as the threshold to identify FLL affected by construction activity.</p>	<p>Note that this is a misreading of paragraph 8.1.6 of the HRA, and to avoid further confusion the Applicant has amended the paragraph as follows (further amendment in bold): <i>'In consultation over an earlier draft of this HRA, Natural England agreed that there is little observable effect on birds from LAmax noise below 55dB., regardless of the difference to the pre-construction baseline noise level. Since LAeq is always lower than the LAmax, 55dB <b>LAmax</b> was used as the noise threshold to determine the extent of functionally linked habitat potentially subjected to significant temporary disturbance from construction works'</i>. Contour maps for LAmax were provided in Figure 7 of the HRA, and these are discussed in the report alongside LAeq.</p>

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<p>However, although 6.2.8 provides a caselaw example of mitigation applied at the likely significant effect stage, the restriction was already in built in to reduce impacts to protected species, and not for the prevention of impacts to designated sites. Therefore, it is our advice that as the seasonal restrictions for HDD are incorporated specifically as measures to avoid impacts on European site features, that these impacts should be assessed at the appropriate assessment stage, as they would be considered mitigation. However, we can advise that at appropriate assessment stage, adverse effects on integrity of these features could be ruled out due to these mitigation measures proposed.</p>	<p>The avoidance of the core fish migration season of September to February and May where practicable is not a key reason for the conclusion of no likely significant effect (hence why it was not mentioned in the originally submitted HRA) but was added to reinforce the conclusion since it was already mentioned in the ES ecology chapter <b>[APP-060]</b>. The conclusion of no likely significant effects was based on a combination of the large volume of intervening rock and soil between the HDD launch pit and the HDD drill itself (approximately 1500m<sup>3</sup> of rock and soil between the HDD and the river laterally, and approximately 1000m<sup>3</sup> above the drill beneath the river), and the very short duration of HDD in this instance (several days). Given both these factors there is very low risk lamprey or bullhead movements would be disrupted.</p> <p>To clarify that the seasonal restriction is not a fundamental basis for our conclusion we have moved it in HRA Revision 01 to paragraph 6.2.9 so that it now follows the conclusion of no likely significant effect.</p>