



Department for
Energy Security
& Net Zero

Habitats Regulations Assessment for an Application Under the Planning Act 2008

Longfield Solar Farm

Regulation 63 of the Conservation of Habitats
and Species Regulations 2017

June 2023



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Contents

1	Introduction	1
1.1	Background	1
1.2	Habitats Regulations Assessment	1
1.3	Site conservation objectives	3
1.4	Documents referred to in this HRA	5
1.5	Consultation	6
2	Project description	7
2.1	Changes to the Application during Examination	8
3	Stage 1: Screening for Likely Significant Effects (“LSEs”)	9
3.1	Project location and protected sites	9
3.2	LSE alone and in-combination	13
3.2.1	Changes in surface water quality and habitat contamination	14
3.2.2	Consideration of functional linkage to the Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar	15
3.2.3	LSE In-combination	16
3.3	Likely Significant Effects conclusion	17
4	Transboundary assessment	18
5	Conclusion	19

List of abbreviations

Term	Abbreviation
(outline) Construction Environment Management Plan	oCEMP
Adverse Effect on Integrity	AEoI
Appropriate Assessment	AA
Development Consent Order	DCO
Environmental Statement	ES
European Economic Area	EEA
Examining Authority	ExA
Habitat Regulations Assessment	HRA
Interested Parties	IPs
Likely Significant Effect	LSE
Nationally Significant Infrastructure Project	NSIP
Natural England	NE
Outline Design Principles	ODPs
Statement of Common Ground	SoCG
Statutory Nature Conservation Body	SNCB
The Planning Inspectorate	The PINS
The Secretary of State for Energy Security and Net Zero	The Secretary of State

1 Introduction

1.1 Background

This is a record of the Habitats Regulations Assessment (“HRA”) that the Secretary of State for Energy Security and Net Zero (“the Secretary of State”) has undertaken under the Conservation of Habitats and Species Regulations 2017¹ (“the Habitats Regulations”) as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (“the 2019 Regulations”) for the Longfield Solar Farm and its associated infrastructure (the “Project”). The Examining Authority (“ExA”) defines this as the “Proposed Development”. It is defined as the “Project” within this HRA for consistency with the terminology of the Habitats Regulations. For the purposes of these Regulations, the Secretary of State is the competent authority.

The Project comprises the construction, operation, maintenance and decommissioning of a solar photovoltaic electricity generating facility and battery energy storage system with a total capacity exceeding 50 megawatts (MW) and associated infrastructure. The Project is described in more detail in Section 2.

The Project constitutes a nationally significant infrastructure project (“NSIP”) as defined by s. 14(1)(a) of the Planning Act 2008 as it is for an onshore generating station with a capacity over 50MW.

The Project was accepted by the Planning Inspectorate (“PINS”) on 28 March 2022 and a single Inspector was appointed as the Examining Authority (“ExA”) for the Application. The Examination of the Project application began on 18 July 2022 and completed on 18 January 2023. The ExA submitted its report of the examination including its recommendation (“the ExA’s Report”) to the Secretary of State on 18 April 2023. Numbered references to the ExA’s Report are presented in the format “[ER *.*]”.

This report contains assessment of the potential effects of the Project upon designated sites in European Economic Area (“EEA”) States (“transboundary sites”). This is included under the transboundary assessment section of the report (Section 4).

1.2 Habitats Regulations Assessment

The Habitats Regulations aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects.

In the UK, the Habitats Regulations apply as far as the 12 nautical miles (“nm”) limit of territorial waters.

¹ <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation (“SACs”). They also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the UK and internationally. These sites are called Special Protection Areas (“SPAs”). SACs and SPAs together form part of the UK’s National Site Network.

The Convention on Wetlands of International Importance 1972 (“the Ramsar Convention”) provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the United Kingdom the same protection as sites within the National Site Network (collectively referred to in this HRA as “protected sites”).

Candidate SACs (“cSACs”), SACs and SPAs are afforded protection as protected sites. As a matter of policy² the Government affords potential SPAs (“pSPAs”) the same level of protection.

Regulation 63 of the Habitats Regulations provides that:

...before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, [the competent authority] must make an appropriate assessment of the implications for that site in view of that site’s conservation objectives.

And that:

In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

This Project is not directly connected with, or necessary to, the management of a protected site. The Habitats Regulations require that, where the Project is likely to have a significant effect (“LSE”) on any such site, alone or in-combination with other plans and projects, an appropriate assessment (“AA”) is carried out to determine whether the Project will have an adverse effect on the integrity of the site in view of that site’s Conservation Objectives. The following assessments are collectively referred to as a Habitats Regulations Assessment (“HRA”):

- Stage 1: Assessment of likely significant effects (“LSE”),
- Stage 2: Appropriate Assessment (“AA”) to determine whether there is an adverse effect on the integrity of a site,
- Stage 3: Assessment of Alternative Solutions,
- Stage 4: Imperative Reasons of Overriding Public Interest (“IROPI”),
- Stage 5: Compensatory measures.

² NPS EN-1 para 5.3.9

Consent for the Project may be granted only after having ascertained that it will not adversely affect the integrity of protected sites, and no reasonable scientific doubt remains³.

On 12 April 2018, the Court of Justice of the European Union issued a ruling in *People Over Wind, Peter Sweetman v Coillte Teoranta (C-323/17)* (the ‘Sweetman Judgement’)⁴, which stated (at paragraph 41):

“Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects [mitigation] of the plan or project on that site.”

This means that mitigation measures should not be considered at the screening stage (stage 1) but taken forward and considered at the AA stage (stage 2). The assessment provided within this HRA takes account of the ruling on ‘Sweetman’ and the precautionary principle has been applied.

The Secretary of State has had regard to guidance on the application of the Habitats Regulations to the assessment of plans and projects as published by the PINS (2022) (Advice Note 10)⁵ guidance produced by Defra (2012)⁶ the European Commission (2018)⁷, joint guidance by Defra, Natural England (“NE”), the Welsh Government and Natural Resources Wales (2021) on ‘Habitats Regulations Assessment: protecting a European site’ (the “2021 joint guidance”)⁸. It is noted that the Defra (2012) guidance was withdrawn on 15 March 2021 and has subsequently been updated and replaced by the 2021 joint guidance.

1.3 Site conservation objectives

Where an AA is required in respect of a protected site, regulation 63(1) of the Habitats Regulations requires that it be an AA of the implications of the plan or project for the site in view of its conservation objectives. Government guidance also recommends that in carrying out the

³ CJEU Case C-127/02 *Waddenzee* 7 September 2004, Reference for a preliminary ruling from the Raad van State (Netherlands) in the proceedings: *Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij*

⁴ ECJ case reference C-323/17, available: <http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> (Accessed 16/04/2022)

⁵ <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/>

⁶ Defra (2012) *Habitats and Wild Birds Directives: Guidance on the application of article 6(4) Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures.*

⁷ European Commission (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC*

⁸ Defra, NE, the Welsh Government and Natural Resources Wales (2021) ‘Habitats Regulations Assessment: protecting a European site’ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

LSE screening, applicants must check if the proposal could have a significant effect on a protected site that could affect its conservation objectives.

Defra Guidance indicates that disturbance to a species or deterioration of a protected site must be considered in relation to the integrity of that site and its conservation objectives⁹. It states that *“the integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated”*.

Conservation objectives have been established by NE. When met, each site will contribute to the overall favourable conservation status of the species or habitat feature across its natural range. Conservation objectives outline the desired state for a protected site, in terms of the interest features for which it has been designated. If these interest features are being managed in a way which maintains their nature conservation value, they are assessed as being in a ‘favourable condition’. An adverse effect on integrity is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation. There are no set thresholds at which impacts on site integrity are considered adverse. This is a matter for interpretation on a site-by-site basis, depending on the designated feature and nature, scale, and significance of the impact.

NE has issued generic conservation objectives, which should be applied to each interest feature of the site. Supplementary advice on conservation objectives (“SACOs”) for each site underpins these generic objectives to provide site-specific information and give greater clarity to what might constitute an adverse effect on a site interest feature. SACOs are subject to availability and are currently being updated on a rolling basis.

Where supplementary advice is not yet available for a site, NE advises that HRAs should use the generic objectives¹⁰ and apply them to the site-specific situation. For SPAs, the overarching objective is to avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Habitats Regulations. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the populations of the qualifying features; and
- the distribution of the qualifying features within the site.

For SACs, the overarching objective is to avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving favourable conservation status of each of the qualifying features. This is achieved by, subject to natural change, maintaining and restoring:

⁹ <https://www.gov.uk/guidance/appropriate-assessment>

¹⁰ <http://publications.naturalengland.org.uk/publication/6734992977690624?cache=1656417868.31>

- the extent and distribution of the qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

The conservation objectives and, where available, supplementary advice on conservation objectives have been used by the Secretary of State to consider whether the Project has the potential to have an adverse effect on the integrity of sites, either alone or in-combination with other plans or projects.

The SACOs relevant to this HRA, as published by NE and the Joint Nature Conservation Committee are referenced in Table 1 of this HRA.

1.4 Documents referred to in this HRA

This HRA has taken account of and should be read in conjunction with the documents produced as part of the Application and Examination, which are available on the PINS NSIP Project web page¹¹. In particular:

- the ExA's Report;
- the HRA Report ("HRAR") [APP-202];
- the Environmental Statement ("ES") [APP-032] to [APP-198]; and
- the Statement of Common Ground ("SoCG") with NE.

Plus, other information submitted during the Examination and during the Secretary of State's consideration of the Application. Key information from these documents is summarised in this report.

The SoCG between the Applicant and NE was first submitted at Deadline 2 [REP2-022]. A final signed version was submitted at Deadline 4 [RE4-028]. Any subsequent references to the SoCG between the Applicant and NE in this HRA are to the Deadline 4 version, unless otherwise stated. The SoCG confirmed that all matters relating to HRA and otherwise were agreed between the two parties, and that there were no HRA matters outstanding between them in respect of the Project.

¹¹ <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/longfield-solar-farm/?ipcsection=docs>

1.5 Consultation

Under Regulation 63(3) of the Habitats Regulations the competent authority must, for the purposes of an AA, consult the Statutory Nature Conservation Body (“SNCB”) and have regard to any representation made by that body within such reasonable time as the authority specifies. NE is the SNCB for England and for English waters within the 12 nm limit.

The ExA decided that a ‘Report on Implications for European Sites’ compiling HRA-relevant information was not required [ER 6.1.6], due to NE’s agreement [RR-068] [REP1b-095] with the Applicants scope and conclusions of the HRAR (i.e. that LSEs can be excluded). No other evidence against this was submitted by any other IP during Examination, or during the Secretary of State’s consideration of the Project.

Although an AA is not required (see Section 3), the Secretary of State is content that an appropriate body of information and consultation with the SNCB has been established to enable him to fulfil his duties in respect of protected sites.

2 Project description

The Project comprises the construction, operation and decommissioning of:

- **Work No. 1** – a ground mounted solar photovoltaic generating station with a gross electrical output of over 50MW including solar panels fitted to mounting structures and ‘Balance of Solar System’ plant together with associated development within the meaning of section 115(2) of the Planning Act 2008;
- **Work No. 2** – an energy storage facility comprising a battery storage system compound including a battery energy storage system unit, transformers and associated bounding, inverters, switch gear, power conversion systems, monitoring and control systems, heating, ventilation and air conditioning systems, electrical cables, fire safety infrastructure, enclosures, containers and related ancillary equipment;
- **Work No. 3** – construction of a substation, switch room buildings and ancillary equipment, control buildings, storage and welfare facilities, monitoring and control systems, 400kV harmonic filter compound and electrical cables;
- **Work No. 4** – works to lay high voltage electrical cables, access and temporary construction laydown areas for the electrical cables including access tracks, ramps, footpaths, roads, drainage infrastructure and associated signage;
- **Work No. 5** – an extension to the existing Bulls Lodge Substation including buildings, ancillary plant rooms, amenities block, storage and workshop units, access roadways and footways, earthworks, parking and other associated development;
- **Work No. 6** – electrical cables (including cables connecting to Work Nos. 1 and 3), fencing, gates, boundary treatments and other means of enclosure, security apparatus, landscaping, biodiversity mitigation and enhancement measures, improvement of existing tracks and other means of access, earthworks, drainage (including sustainable drainage systems) and irrigation infrastructure, temporary construction compounds and works to divert and underground existing overhead lines;
- **Work No. 7** – temporary construction and decommissioning laydown areas;
- **Work No. 8** – office warehouse and plant storage building;
- **Work No. 9** – works to facilitate Work Nos. 1 to 8 and 10 including creation of access from the public highway, the creation of visibility splays and works to widen and surface the public highway;
- **Work No. 10** – areas of habitat management including landscape and biodiversity enhancement measures, habitat creation and management, provision of permissive paths, signage and information boards; and
- Further associated development as may be necessary or expedient for the purposes of or in connection with the Project.

The Applicant has not included a maximum limit on generating capacity in the dDCO explaining that total generation capacity is linked to the size of the site and the Grid Connection offer that the Applicant has received and accepted. The Project design envelope sets out a series of design options for the Project and has a reasoned minimum and maximum extent for a number of key parameters. The final design would lie between the minimum and the maximum extent of the consent sought for all aspects of the Project. The final detailed design of the Project, which

would occur post-consent, would fall within this 'Rochdale envelope'. The Secretary of State's HRA is based upon the maximum extent or worst-case potential impact of the Project for each parameter. A set of Outline Design Principles ("ODPs") [REP6-007] have been established by the Applicant which allow for flexibility in the design and form the limits within which the Project can be built and operated ('the Rochdale Envelope'). These design principles correspond to the physical areas set out in the works plans [REP3-003 and REP3-004] and are secured in Requirement 7 and 22 of the dDCO [REP8-009]. In addition, an Illustrative Concept Design (ES Figure 2-5) [REP6-029] has been created to provide a visual representation of an illustrative example of a scheme that *could* be constructed within the ODP parameters. This has been used for topics where a specific level of detail is required to enable a robust assessment to be undertaken. Further information on the Rochdale Envelope is available in PINS Advice Note Nine¹².

There are no subsequent consents required for the Project which would require subsequent HRAs to be carried out by other competent authorities [APP-202].

2.1 Changes to the Application during Examination

A number of changes were made to the application documents during the Examination, including amendments to the wording of the dDCO. These changes were intended to address the ExA's questions as well as points raised by IPs. They sought to improve the clarity of the drafting and address any omissions, discrepancies and other matters which were raised during the Examination.

The Applicant also submitted several revisions to the application documents, details of which can be found in the Application Guide submitted at Deadline 8 [REP8-002]. This provides a guide to all documents submitted as part of the Application and was updated at each Deadline when new or revised documents were submitted. It provides a full record of all documentation submitted into the Examination by the Applicant.

¹²<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-nine-rochdale-envelope/>

3 Stage 1: Screening for Likely Significant Effects (“LSEs”)

Under regulation 63 of the Habitats Regulations, the Secretary of State must consider whether the Project will have an LSE on a protected site, either alone or in-combination with other plans or projects. The purpose of this section is to identify any LSEs on protected sites that may result from the Project and to record the Secretary of State’s conclusions on the need for an AA.

This first stage in the HRA process (stage 1) uses the threshold of LSE to determine whether effects on protected sites should be the subject of further assessment. The Habitats Regulations do not define the term LSE. However, in the Waddenzee case (Case C-127/02)¹³ the European Court of Justice found that an LSE should be presumed, and an AA carried out if it cannot be excluded on the basis of objective information that the plan or project will not have significant effects on the conservation objectives of the site concerned, whether alone or in-combination with any other project. The Advocate General’s opinion of the Sweetman case (Case C-258/11)¹⁴ further clarifies the position by noting that, for a conclusion of an LSE to be made *“there is no need to **establish** such an effect...it is merely necessary to determine that there **may** be such an effect”* (original emphasis). For the reasons highlighted above the assessment process follows the precautionary principle throughout and the word ‘likely’ is regarded as a description of a risk (or possibility), as opposed to a probability.

3.1 Project location and protected sites

The location of the Project is shown on the Location Plan [APP-010] (and in ES Figure 1.1 (Scheme Location) [APP-104]) and is described in detail in ES Chapter 2 [REP1b-011]. It comprises an area of approximately 453 ha located within the administrative boundaries of Essex County Council, Braintree District Council and Chelmsford City Council. The Order limits are approximately centred on Ordnance Survey National Grid Reference (NGR) TL 74179 14620 and located approximately 1.1 km to the west of the village of Terling. A video flyover of the site can be found in [REP4-037].

The majority of the Order limits is moderate quality agricultural farmland (grade 3b) with areas of best and most versatile agricultural land (grades 2 and 3a) located throughout the site. It also includes large areas of woodland, ponds, small areas of pasture along with trees, hedgerows and farm access tracks.

¹³ Judgment of the Court (Grand Chamber), 7 September 2004. Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij. Reference for a preliminary ruling: Raad van State - Netherlands. Case C-127/02.

¹⁴ Judgment of the Court (Third Chamber), 11 April 2013. Peter Sweetman and Others v An Bord Pleanála. Request for a preliminary ruling from the Supreme Court (Ireland) Case C-258/11.

The Essex Estuaries SAC, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and the Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar are each located approximately 9.3km to the South-East of the Project site and are overlapping in spatial extent.

The Project site is within the zone of influence of several internationally, nationally and locally protected and statutorily designated sites as illustrated in

Figure 1.

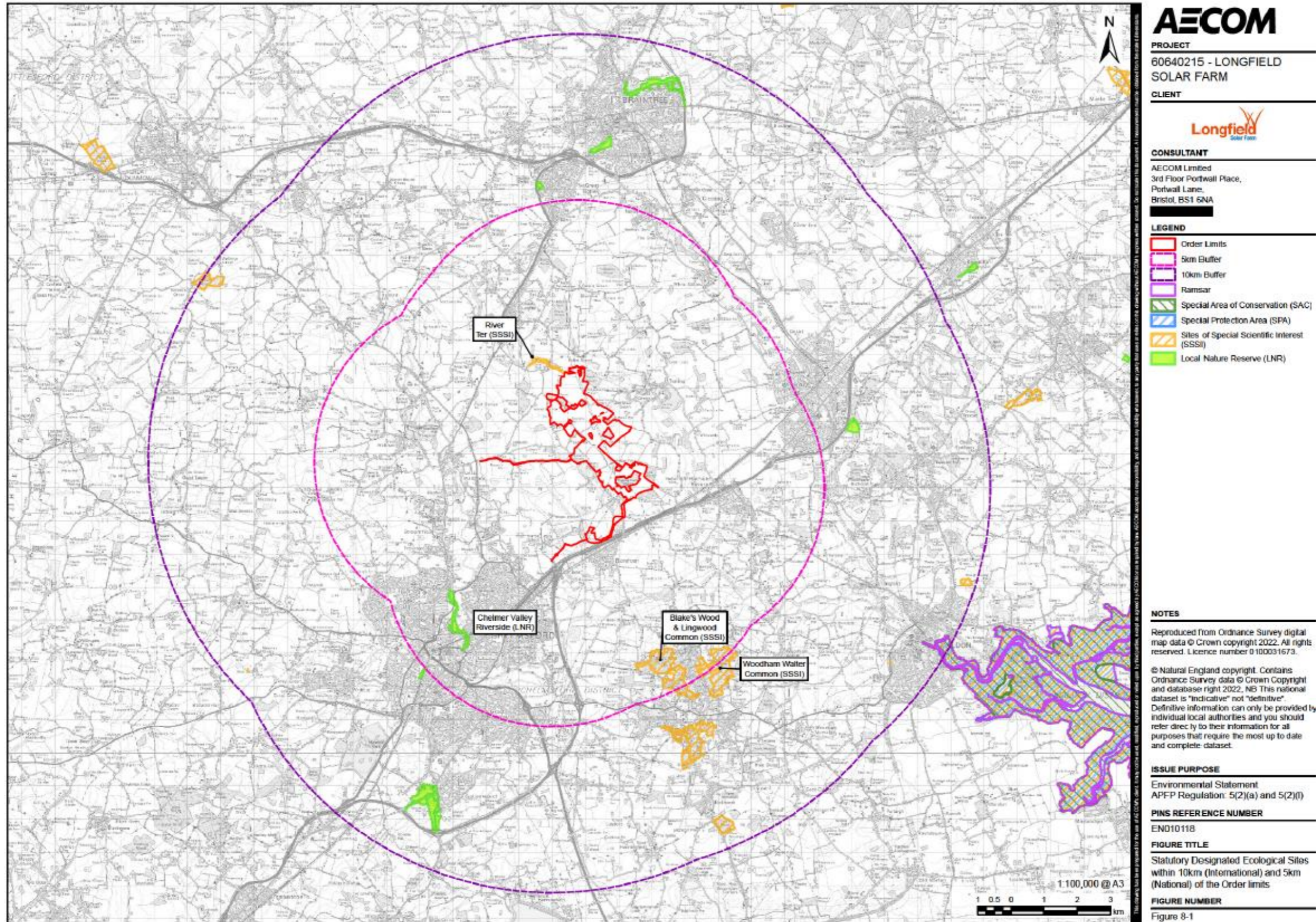


Figure 1: Spatial relationship of the Project and protected sites.

The Applicants HRAR [APP-202] sets out the methodology applied in determining what would constitute a ‘significant effect’. The protected sites and qualifying features that were considered in the Applicant’s assessment of LSE are presented in Table 1. A search radius of 10km was used to identify relevant protected sites which may be affected by the Project. The Applicant considered this appropriate based on likely impacts during construction, operation and decommissioning of a solar farm, compared to other large power generation developments such as gas fired power stations that are potential sources of air pollution over a greater distance. NE [RR-068] also identified these three protected sites as those relevant to the Project.

Table 1: Protected sites and qualifying features considered in the Assessment of LSE.

Protected site	Qualifying feature	SACOs
Essex Estuaries SAC	Estuaries Mudflats and sandflats not covered by seawater at low tide Salicornia and other annuals colonising mud and sand Spartina swards Atlantic salt meadows Mediterranean and thermo-Atlantic halophilous scrubs Sandbanks which are slightly covered by sea water all the time	See footnote ¹⁵
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	Little tern (breeding) Hen harrier (wintering) Common pochard (breeding) Ringed plover (breeding) Dark-bellied brent goose (wintering) Grey plover (wintering) Dunlin (wintering) Black-tailed godwit (wintering)	See footnote ¹⁶

¹⁵<https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK0013690&SiteName=essex%20estuaries&SiteNameDisplay=Essex+Estuaries+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAArea=&NumMarineSeasonality=>

¹⁶[https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009245&SiteName=blackwater%20estuary&SiteNameDisplay=Blackwater+Estuary+\(Mid-Essex+Coast+Phase4\)+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAAArea=&NumMarineSeasonality=8](https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009245&SiteName=blackwater%20estuary&SiteNameDisplay=Blackwater+Estuary+(Mid-Essex+Coast+Phase4)+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAAArea=&NumMarineSeasonality=8)

	Waterbird assemblage	
Blackwater Estuary (Mid-Essex Coast Phase 4 Ramsar	Ramsar Criterion 1 – saltmarsh habitat Ramsar Criterion 2 – at least 16 British Red Data Book invertebrate species Ramsar Criterion 3 – saltmarsh plant communities Ramsar Criterion 5 – wintering waterbird assemblage Ramsar Criterion 6 – dark-bellied brent goose (wintering) Ramsar Criterion 6 – grey plover (wintering) Ramsar Criterion 6 – dunlin (wintering) Ramsar Criterion 6 – black-tailed godwit (wintering) Species/ populations for possible future consideration under Ramsar Criterion 6 – common shelduck (wintering) Species/ populations for possible future consideration under Ramsar Criterion 6 - European golden plover (wintering) Species/ populations for possible future consideration under Ramsar Criterion 6 – common redshank (wintering)	N/A

3.2 LSE alone and in-combination

Impact pathways assessed in the HRAR for their potential to result in LSE include direct habitat loss or direct physical damage, displacement and disturbance of SPA/Ramsar birds occurring within or outside the protected sites, changes in air quality and changes in groundwater quality.

The Applicant considered that there are no pathways that could result in direct habitat loss or direct physical damage to any of the designated habitats. Given the absence of functionally linked land within the Order limits or survey areas (Section 3.2.2) and the distance (>9 km) to the protected sites, it considered that there are no pathways that could result in the displacement or disturbance (construction or decommissioning noise and visual, e.g. plant and workforce movements) of SPA / Ramsar birds occurring within or outside the protected site.

Similarly, there are no pathways for changes in air quality through construction or decommissioning related airborne dust¹⁷ or groundwater¹⁸ pathways over this distance through which the Project could give rise to any effects on the groundwater dependent terrestrial ecosystems of the protected sites.

These Impacts were therefore scoped out on the basis that there was no pathway for LSE. The ExA [ER 6.4.2] was satisfied that the correct protected sites and qualifying features have been identified for the purposes of the LSE assessment. The Secretary of State is satisfied that all the relevant protected sites and relevant qualifying features have been identified for consideration, and that LSEs can be excluded due to the above impacts due to the absence of any realistic impact pathways.

The only impact considered by the Applicant to have the potential to result in LSE was changes in surface water quality and habitat contamination during construction and decommissioning of the Project.

3.2.1 Changes in surface water quality and habitat contamination

The northern part of the Order limits is located within part of the River Ter Valley. The River Ter flows for approximately 17.5km from the northern edge of the Order limits along the river network to the three protected sites identified in Table 1. This hydrological connection presents a potential impact pathway between the Project and the protected sites.

The HRAR concludes that impacts on the protected sites are unlikely, as ‘no development’ will occur within 50m of the River Ter and due to the distance along the river network. At this distance, dilution factors would be so great that any pollution is likely to be well below the limits of detection. ‘No development’ within 50m was confirmed by the Applicant [REP1b-042] as being the separation distance between the Project infrastructure (solar panels and their installation) and the River Ter, as shown on the Works Plans [REP3-003] [REP3-004]. Adherence with the Works Plans, which are a certified document under schedule 13 of the DCO, is secured under Article 3 of the DCO. The only works which would occur within the 50m zone would be habitat creation and management [REP1b-042].

The ExA [ER 6.2.13] was satisfied that would be no LSEs on the qualifying features of Essex Estuaries SAC or Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar as a result of changes in surface water quality and habitat contamination during construction or decommissioning.

The ExA [ER 6.2.14] was also satisfied that there are other relevant measures secured by the dDCO which would minimise impacts to protected sites, but which have not been relied upon in reaching the conclusion of no LSEs. This includes submission of a Construction Environment Management plan (“CEMP”) (which must be substantially in accordance with the outline CEMP [REP4-014]) to the relevant local planning authority for approval. This is secured by Requirement

¹⁷ Institute of Air Quality Management guidance typically considers assessment of dust from demolition and construction on habitats up to 200m from the source. IAQM (2014). Guidance on the assessment of dust from demolition and construction. Institute of Air Quality Management.

¹⁸ With reference to Chapter 9: Water Environment of the Environmental Statement [EN010118/APP/6.1] construction works will not impact the water table and ground water sources.

13 of the dDCO. The oCEMP is a certified document under Schedule 13 of the dDCO. Tables 3-3 and 3-4 of the oCEMP outline pollution control measures to reduce risks of chemical or soil spills entering watercourses.

3.2.2 Consideration of functional linkage to the Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar

The displacement or disturbance of SPA/Ramsar birds occurring within or outside the protected sites was scoped out of the Applicants HRAR on the basis that there is no pathway for any LSE to occur.

The Applicants wintering bird survey area included all habitat within the Order limits and a 50m Buffer [APP-071]. The surveys were broadly based on a transect methodology as detailed in Bibby et al. (2000)¹⁹ and Gilbert et al. (1998)²⁰. Surveys were undertaken between January and March 2020; and October and December 2020, with a total of six survey visits taking place. Due to the extent of the Order limits each survey was split over two-three days. The survey dates were:

- Visit 1 - 29th and 30th January 2020;
- Visit 2 - 18th and 19th February 2020;
- Visit 3 - 17th and 18th March 2020;
- Visit 4 - 19th and 20th October 2020;
- Visit 5 - 17th and 18th November 2020; and
- Visit 6 - 8th and 10th of December 2020.

The survey routes were walked by surveyors using suitable optical equipment to observe bird behaviour. Regular stopping points were included along the routes to record any species that may be passing through the survey area. Survey routes were mapped, and the direction walked alternated on each visit to ensure that all areas were covered at various times of day across the duration of the survey. Surveys were undertaken during a range of daylight hours, between sunrise and sunset. On each visit, the route was walked at a slow pace with start and finish times noted. All birds seen and heard were recorded directly onto base map of the survey area. Registrations of birds were recorded using standard British Trust for Ornithology (BTO) two letter species codes. All bird species were recorded and mapped across the whole survey area. The habitat types present in the survey areas included arable farmland, ponds, hedgerow, mature trees and game cover crops, with the potential to support a range of bird surveys.

The wintering bird surveys [APP-071] recorded one qualifying species, European golden plover *Pluvialis apricaria* within the Order limits. Golden plover are cited as an interest feature and species / population identified subsequent to designation for possible future consideration under criterion 6 of the Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar. The Applicant considered [APP-202] that the peak (and only) count of 35 individuals in January 2020, does not represent a significant proportion of the golden plover population (i.e. 1% of the designated site

¹⁹ Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S.H. (2000). Bird Census Techniques: 2nd edition. Academic Press, London.

²⁰ Gilbert G., Gibbons D.W., and Evans J. (1998). Bird Monitoring Methods: A manual of techniques for key UK species. RSPB, Bedfordshire

population of 16,083 individuals). When taking into account the number of individuals and occurrence recorded within the Order limits, the distance (approximately 9.3km between the Order limits and the protected sites) and the availability of similar agricultural habitat in the intervening lands between the Order limits and the protected sites, the Order limits are not deemed to be functionally linked to the protected sites or to provide functionally important habitat for features of the protected sites. The Applicant concludes therefore that there are no impact pathways for a LSE due to impacts on bird qualifying features.

With reference to the Applicants conclusion regarding functional linkage (paragraph 3.3.7 of the HRAR), NE confirmed that a significant effect on the Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar remained unlikely [RR-068] [REP4-028]. NE's Written Representation [REP1b-095] confirmed that it agreed with the conclusion of no LSE for this protected site. Taking into account the information provided and the view of NE, the ExA [ER 6.2.25] agreed that the loss of habitat within the Order Limits would not result in a LSE to the golden plover feature of the Blackwater Estuary (Mid Essex Coast Phase 4) Ramsar as a result of displacement or disturbance during construction or operation of the Project.

The HRAR confirmed that no other flora and fauna cited as features of protected sites were recorded within the Order limits or relevant survey areas.

3.2.3 LSE In-combination

Under the Habitats Regulations, the Secretary of State must consider whether the Project might affect protected sites in-combination with other plans or projects.

The Applicant addressed potential in-combination effects arising from the Project in Section 4.4 of its HRAR, which sets out the methodology applied. The other plans and projects included in the in-combination assessment are set out in Appendix 5A of the ES [APP-055]. NE confirmed it was not aware of any other plans or projects likely to result in in-combination effects together with the Project (ExQ1.6.9 [REP1b-095]). Similarly, none of the Host Authorities highlighted any additional plans or projects in their responses to ExQ1.6.9 ([REP1b-061, REP1b-064 and REP1b-068]).

No in-combination LSEs have been identified for the protected sites and qualifying features where LSEs were excluded from the Project alone, due to the distances from the protected sites to the other plans and projects identified in Appendix 5A of the ES [APP-055]. This has not been disputed by NE or any other IP during the Examination. The Applicant considered potential cumulative and in-combination effects with the proposed East Anglia Green Energy Enablement (GREEN) project across all aspects of the ES (ExQ1.6.8 [REP1b-042] and ExQ3.6.1 [REP6-026]). The Applicant did not identify any potential in-combination effects with the East Anglia GREEN project which could affect protected sites [ER 6.2.29]. The Applicant also considered (ExQ2.12.1 [REP4-034]) new information which became available during the Examination in relation to the proposed A12 Chelmsford to A120 Road Widening Scheme, but considered the ES assessment conclusions remained valid. There was no suggestion from any IP that the assessment of in-combination effects in the HRA needed to be reconsidered [ER 6.2.30].

The ExA [ER 6.2.31] was satisfied that all plans and projects with potential to result in in-combination effects together with the Project have been identified and considered by the Applicant.

3.3 Likely Significant Effects conclusion

The Secretary of State has carefully considered the potential effects of the Project on all qualifying features of the protected sites listed in Table 1, taking into account their conservation objectives, to determine whether there will be LSEs in the context of the Habitats Regulation. The Secretary of State considers that sufficient information has been provided to inform a robust assessment in line with his duties under the Habitats Regulations.

The Applicant's screening for LSE took account of the Sweetman Judgement⁴ to ensure that no mitigation or avoidance measures were taken into account in reaching the conclusion. The Applicant's conclusion of no LSE on the protected sites identified and their qualifying features was not disputed by any IPs during the Examination. NE agreed with the conclusion of no LSEs on any protected site alone or in-combination [RR-068, REP1b-095, REP4-028]. Braintree District Council has also agreed with the conclusion of no LSE, alone or in-combination [REP1b-059].

The ExA [ER 6.2.13] was satisfied that there would be no LSE on the qualifying features of Essex Estuaries SAC or Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar as a result of changes in surface water quality and habitat contamination during construction or decommissioning. The ExA was also satisfied that there are other relevant measures secured by the dDCO which would minimise impacts to the protected sites, but which have not been relied upon in reaching the conclusion of no LSEs. The ExA [ER 6.2.25] was satisfied that the loss of the habitat within the Order Limits would not result in a LSE on the golden plover feature of the Blackwater Estuary (Mid Essex Coast Phase 4) Ramsar as a result of displacement or disturbance during construction or operation of the Project.

The Secretary of State agrees with the recommendations of the ExA, in line with the advice of NE and conclusions of the Applicant's assessments and concludes that LSEs on any protected site can be excluded when the Project is considered alone and in-combination, due to the absence of any realistic impact pathways. In reaching his conclusion, the Secretary of State took no account of any measures intended to mitigate effects on any protected site. Whilst the Secretary of State is supportive of measures proposed to reduce local environmental impacts, such incorporated measures are not necessary to avoid a significant effect on any protected site.

The Secretary of State is satisfied that an AA to consider whether the Project will result in an adverse effect upon the integrity of these sites, is not required.

4 Transboundary assessment

The Secretary of State is of the view that it is important to consider whether there are potential impacts on protected sites in other European Economic Area (“EEA”) states, known as transboundary sites²¹. The ExA also considered the implications for these sites, in the context of looking at the wider EIA considerations. Further information on the assessment of transboundary impacts is available in PINS Advice Notes 12²² and 10⁵.

The Applicants HRAR concluded that there would be no LSE from the Project alone and in-combination for all non-UK protected sites. The entirety of the Project is within eastern England and there are no pathways arising from the Project that could result in significant effects to transboundary sites.

On 15 January 2021 during the pre-application stage, PINS undertook a transboundary screening [OD-001]²³ on behalf of the Secretary of State and pursuant under Regulation 32 of the 2017 EIA Regulations and the United Nations Environment Programme Convention on Biological Diversity 1992. On 24 May 2022 PINS re-considered the likelihood of transboundary effects resulting from the Project, taking into account any changes that have been made to the Project since the previous transboundary screening process was undertaken.

PINS considered that the likelihood of transboundary effects resulting from the Project is so low that it does not warrant the issue of a detailed transboundary screening, and that it is unlikely to have a significant effect either alone or cumulatively on the environment in a EEA State. The ExA agreed [ER 3.7.1 et seq.] with the PINS conclusion and considered that no issues had arisen during the Examination which would indicate that the Project would have a significant effect, either alone or cumulatively on the environment in a EEA state.

The Secretary of State has not been presented with any evidence to demonstrate that transboundary impacts would have a LSE on any transboundary sites. The Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects would not have a LSE on any transboundary site.

²¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/408465/transboundary_guidelines.pdf

²²<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-twelve-transboundary-impacts-and-process/>

²³<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010118/EN010118-000370-LFSF%20-%20Regulation%2032%20Transboundary%20Screening.pdf>

5 Conclusion

The Secretary of State has carefully considered all information presented within the Application and during the Examination, including the representations made by all IPs including the SNCB, along with the ExA's Recommendation Report. The Secretary of State is satisfied that the relevant protected sites have been identified for consideration of LSE. The Secretary of State concludes that LSE on the Essex Estuaries SAC, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar can be excluded when the Project is considered alone and in-combination with other plans and projects.

The Secretary of State is satisfied that there is no risk to any protected sites and their qualifying features as a result of the Project, due to the absence of any realistic impact pathways. This conclusion is not dependent on any mitigation measures. No further stages of a HRA are required.

Author: Energy Infrastructure Planning
Department for Energy Security and Net Zero

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