



**NORTH
LINCOLNSHIRE
GREEN
ENERGY PARK**

Planning Act 2008

Infrastructure Planning
(Applications
Prescribed Forms and
Procedure) Regulations
2009

**North Lincolnshire
Green Energy Park**

Volume 9

9.44 Applicant's Response to
Request for Further Information by
the Secretary of State

PINS reference: EN010116

October 2023

Revision number: 0



Contents

1.	INTRODUCTION	3
1.1	Overview.....	3
1.2	The Proposed Development.....	3
1.3	Structure of the Report	4
2	RESPONSES TO REQUEST FOR INFORMATION BY SECRETARY OF STATE.....	5

Appendices

APPENDIX 1: WATER RESOURCE EFFICIENCIES DESIGN NOTE

APPENDIX 2: RISBY WARREN SSSI MITIGATION AND ENHANCEMENT STRATEGY

APPENDIX 3: AGREEMENT BETWEEN JOTUN PAINTS AND NORTH LINCOLNSHIRE GREEN ENERGY PARK

Acronyms and Abbreviations

Name	Description
AGI	Above Ground Installations
CBMF	Concrete Block Manufacturing Facility
CCUS	Carbon Capture, Utilisation and Storage
CO ₂	Carbon Dioxide
CoCP	Code of Construction Practice
COMAH	Control of Major Accident Hazards
DAS	Design and Access Statement
dDCO	Draft Development Consent Order
DHPWN	District Heat and Private Wire Networks
EIA	Environmental Impact Assessment
ERF	Energy Recovery Facility
ES	Environmental Statement
EV	Electric Vehicle
ExA	Examining Authority
H ₂	Hydrogen
IEMA	Institute of Environmental Management and Assessment
LAQM	Local Air Quality Management
MW	Megawatt
NE	Natural England
NLC	North Lincolnshire Council
NLGEP	North Lincolnshire Green Energy Park
NSIP	Nationally Significant Infrastructure Project
OEMP	Outline Environmental Management Plan
PRF	Plastic Recycling Facility
RDF	Refuse Derived Fuel
RHTF	Residue Handling and Treatment Facility
SMP	Soil Management Plan
SoCG	Statement of Common Ground
SSSI	Site of Special Scientific Interest
SUDs	Sustainable Drainage System

1. INTRODUCTION

1.1 Overview

- 1.1.1 This report responds to a Request for Information by the Secretary of State for Energy Security and Net Zero, issued on 22 September 2023.
- 1.1.2 The report responds to each of the requests for updates and information that are addressed to the Applicant.

1.2 The Proposed Development

- 1.2.1 The North Lincolnshire Green Energy Park (NLGEP), located at Flixborough, North Lincolnshire, comprises an ERF capable of converting up to 760,000 tonnes of residual non-recyclable waste into 95 MW of electricity and a CCUS facility which will treat a proportion of the excess gasses released from the ERF to remove and store CO₂ prior to emission into the atmosphere. The design of the ERF and CCUS will also enable future connection into the Zero Carbon Humber pipeline to be applied for, when this is consented and operational, to enable the possibility of full carbon capture in the future.
- 1.2.2 The NSIP incorporates a switchyard, to ensure that the power created can be exported to the National Grid or to local businesses, and a water treatment facility, to take water from the mains supply or recycled process water to remove impurities and make it suitable for use in the boilers, the CCUS facility, concrete block manufacture, hydrogen production and the maintenance of the water levels in the wetland area.
- 1.2.3 The Project will include the following Associated Development to support the operation of the NSIP:
 - A bottom ash and flue gas residue handling and treatment facility (RHTF);
 - A concrete block manufacturing facility (CBMF);
 - A plastic recycling facility (PRF);
 - A hydrogen production and storage facility;
 - An electric vehicle (EV) and hydrogen (H₂) refuelling station;
 - Battery storage;
 - A hydrogen and natural gas above ground installations (AGI);
 - A new access road and parking;

-
- A gatehouse and visitor centre with elevated walkway;
 - Railway reinstatement works including, sidings by Dragonby, reinstatement and safety improvements to the 6km private railway spur, and the construction of a new railhead with sidings south of Flixborough Wharf;
 - A northern and southern district heating and private wire network (DHPWN);
 - Habitat creation, landscaping and ecological mitigation, including green infrastructure and 65-acre wetland area;
 - New public rights of way and cycle ways including footbridges;
 - Sustainable Drainage Systems (SuDS) and flood defence; and,
 - Utility constructions and diversions.

1.2.4 Additional information regarding the proposed development can be found in Chapter 1 and Chapter 3 of the submitted Environmental Statement (APP-049 and REP6-018).

1.3 Structure of the Report

1.3.1 The remainder of this report has been structured by topic with a response to each of the requests for updates and information made.

2 RESPONSES TO REQUEST FOR INFORMATION BY SECRETARY OF STATE

	TO	REQUEST FOR UPDATE OR INFORMATION	RESPONSE
Water Supply			
Para 3	Applicant, Anglian Water	The Secretary of State notes that at the end of the examination period a water supply for the construction and subsequent operation of the development could not be guaranteed prior to 2030. The Secretary of State requests the Applicant and Anglian Water to provide an update and/or information on how the necessary water supply for the building and operation of the plant will be secured.	<p>A joint statement has been prepared by the Applicant and Anglian Water to explain the water resource efficiencies undertaken since the examination period and how the water supply for the construction and operation of the plant will be secured. Refer to Appendix 1.</p> <p>The Applicant has further reduced the water demand requirements for the Project through developing efficiency strategies to treat water and trade effluent from the Carbon Capture Utilisation and Storage Facility (CCUS) and other facilities for re-use in other processes. This has been set out in the following updated documents, submitted with this response: ES Chapter 9: Water Resources and Flood Risk (Document Reference 6.2.9), ES Chapter 19: Mitigation (Document Reference 6.2.19), the CoCP (Document Reference 6.3.7) and the OEMP (Document Reference 6.3.8).</p> <p>Anglian Water has confirmed that it has a legal responsibility, plus has the capacity to supply the potable water required by the workers during construction and visitors, plus the staff who will work at the plants during operation.</p> <p>Anglian Water has confirmed that the existing potable water supply to the two large office blocks (Bellwin House and Glanford House), the Industrial Units 2-28 (even numbers) on First Avenue and the Park Ings Farm store building on Stather Road within the site Order Limits which will be demolished, belongs to the Applicant and can be used as the Applicant wishes. This existing potable supply will be used during the</p>

			<p>construction period for the Welfare Facilities and during operation for staff plus visitors.</p> <p>Anglian Water has confirmed that it has a legal responsibility to provide water supply for firefighting. It is noted that this will be periodic rather than a regular demand, and Anglian Water and the Applicant are looking into the option of using raw water (rather than potable water) as a more sustainable alternative.</p> <p>Anglian Water is reviewing the provision of water required for construction through either potable water via the potable water network; or an alternative (raw water) by tanker or other methods, e.g. for concrete batching.</p> <p>Anglian Water and the Applicant have also agreed a proposed requirement to insert into the DCO as follows:</p> <p><i>1) No part of the energy park works may commence, save for the preliminary works, until a Water Resources Assessment is submitted to and agreed with Anglian Water following consultation with the Environment Agency on matters relating to their function and subsequently approved by the relevant planning authority. The Water Resources Assessment will include a scheme to deal with the supply of water during both construction and operation of the authorised development including final process design, maximum daily demand, and water efficiency measures.</i></p> <p><i>(2) The scheme submitted and approved under sub-paragraph (1) must be in accordance with the environmental statement and for the operational water supply must be included in the operational environmental management plan submitted pursuant to Requirement 4(5) – (7) and for the construction water supply must be included in an update to the construction environment management plan submitted pursuant to Requirement 4(2).</i></p>
--	--	--	--

			<p><i>(3) The scheme approved under sub-paragraph (1) must be implemented as approved throughout the construction and operation of the energy park works unless agreed otherwise by the relevant planning authority following consultation with the Environment Agency and Anglian Water as necessary.</i></p> <p><i>“Anglian Water” means Anglian Water Services Limited, the statutory water supply provider for the North Lincolnshire Green Energy Park under the Water Industry Act 1991 and responsible for ensuring the cumulative impacts of development do not compromise the supply of water for domestic purposes.</i></p> <p><i>“Water Resources Assessment” includes all designs, drawings, specifications, resource assessments, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe the source and supply of water for construction and operation.</i></p>						
Waste Management									
Para 4	Applicant	The Applicant is requested to provide further information on how the proposed development complies with the “waste hierarchy” as defined in the Waste (England 2 and Wales) Regulations 2011 and the requirements for Energy from Waste plants as set out in energy National Policy Statements EN-1 and EN-3.	<p>Throughout the Examination of the Application the Applicant has provided extensive responses to questions in relation to the above points, and setting out how the proposed development complies with the 2011 Regulations, as well as the National Policy Statements. To assist the Secretary of State, we have set out below a list of the relevant documents and instances where these points have been addressed:</p> <table border="1"> <thead> <tr> <th>Exam Library Reference</th> <th>Doc Name</th> <th>Relevant Pages/ Paragraphs</th> </tr> </thead> <tbody> <tr> <td>REP1-015</td> <td>Deadline 1 Submission - 9.4 Written summaries</td> <td>Page 33 – ref 36</td> </tr> </tbody> </table>	Exam Library Reference	Doc Name	Relevant Pages/ Paragraphs	REP1-015	Deadline 1 Submission - 9.4 Written summaries	Page 33 – ref 36
Exam Library Reference	Doc Name	Relevant Pages/ Paragraphs							
REP1-015	Deadline 1 Submission - 9.4 Written summaries	Page 33 – ref 36							

				of oral submissions put at Issue Specific Hearing 1	
			REP2-033	Deadline 2 Submission - 9.8 Applicant's Response to Written Questions	Pg 136 – response to Q7.1.63
			REP6-032	Deadline 6 Submission - 9.24 - Applicant's response to the Examining Authority's Second Written Questions (ExQ2)	Page 37 – response to Q2.17.0.3 Page 38 – response to Q2.17.0.4 Page 40 – response to Q2.17.0.5
			REP8-020	Deadline 8 Submission - 9.30 - Applicant's Responses to the Examining Authority's Third Written Questions (ExQ3)	Page 32 – response to Q17.0.1
			REP9-034	Deadline 9 Submission - 9.2 National Policy Statement (NPS) Tracker. (Revision 2). (Clean)	See pages 98 – 102, pages 110 – 112, page 136, pages 141 – 142.
<p>The Applicant is of the view that it has already provided the information that it is possible to provide on this subject and is not clear what further information might be helpful to aid the Secretary of State in reaching a decision. If the Secretary of</p>					

			<p>State can clarify what is meant by her question the Applicant may be able to provide further information.</p> <p>The Applicant notes the correspondence from the Secretary of State dated 19th October following a question by the Applicant on this point and will await a request for further information, if any further information is required.</p>
Para 5	Applicant	<p>The Applicant is also requested to provide further information on the development of the concrete block making facility and how that facility and its operations would be secured by Requirement 18 in the submitted draft DCO.</p>	<p>The provision of the concrete block manufacturing facility (CBMF) is secured by requirement 18. Requirement 18(2) provides that once the ERF (Work No.1) has been commissioned, the CCUS (Work No. 1B) must then also be constructed and commissioned within 6 months. In addition, once the CCUS has been commissioned the CBMF (Work No. 2(b)) must also be constructed and commissioned. It is therefore not possible for the Applicant to construct and commission the ERF without subsequently also constructing and commissioning the CCUS and the CBMF. Whilst it is possible for the Applicant to extend the timescales for the provision of the CCUS and CBMF, provided that the alternative timescales do not give rise to any new or materially different environmental effects from those originally assessed, it would not be in the interests of the Applicant to extend the timeframes materially. This is because the Applicant draws benefit from the operation of the CBMF, in removing the need to source an off-taker for the ash residues, it facilitates the utilisation of CO2 captured in the absence of CO2 transportation pipelines and produces an additional revenue stream for the Facility in the form of the low-carbon concrete products produced.</p> <p>The EIA covers the short period in which the CBMF will be under construction, as there is a lesser traffic impact during this period than when the CBMF is in operation. The reprocessed residues form a component of the concrete</p>

			<p>blocks. Therefore, import of the other materials needed to make concrete blocks, and export of the final product, generates more vehicle movements than merely exporting the ash residues.</p> <p>Under section 161 of the Planning Act 2008 it is an offence to carry out development in breach of the terms of an order granting development consent. If the Applicant were to not construct the CBMF this would be considered a breach of the Order and the Applicant would be committing an offence.</p> <p>The timescales in requirement 18 are to allow for proper sequencing of the works. The ERF supplies materials to both the CCUS and the CBMF, hence these facilities will only be able to operate after completion of the ERF.</p> <p>Additionally, the CBMF footprint is expected to be used as the construction laydown area for the ERF, as shown in the construction phasing strategy. The CCUS can be completed relatively quickly as it shares a site with the ERF. The project allowed for six months for commissioning of the CCUS following ERF completion, which assumes that the two facilities are constructed in parallel. The CBMF will be constructed later once its footprint is not required for ERF construction laydown, either because the ERF construction phase is complete or because an alternative site has been made available.</p>
Effects on Sites of Special Scientific Interest (SSSIs)			
Para 6 (i)	The Applicant	The Secretary of State notes that the Applicant's assessment [APP-058] concludes that the proposed development would have likely significant effects from air emissions on the Messingham Heath SSSI, Humber Estuary SSSI, Thorne	Before addressing points (i) and (ii) it should be noted that the opening paragraph is making an erroneous reference to the conclusions of APP-058. It would appear the reference is to the conclusions of the 'screening' part of the assessment and not to the 'further assessment' that followed where potentially significant effects identified in screening were assessed in

		<p>Crowle and Goole Moors SSSI and Risby Warren SSSI:</p> <p>(i) The Applicant is requested to provide further information justifying the reliance on the Reasonable Operating Case (ROC) relating to potential adverse effects on SSSIs from air emissions [AS-026, REP9-011], when the ROC is not secured as the worst-case scenario for the emissions from the Proposed Development.</p>	<p>more detail. We provide a more detailed explanation of the process and its findings (with cross reference to relevant documents) below. However, for the sake of brevity the assessment concluded no significant effects on Messingham Heath SSSI, Humber Estuary SSSI and Thorne Crowle and Goole Moors SSSI; conclusions with which Natural England agreed in the final SoCG (REP10-010) (see Supporting Note on Assessing the Effects of Air Quality Impacts on Protected Sites below.)</p> <p>APP-058 presented the results of a Reasonable Worst-Case assessment of the Proposed Development operating continuously at the new BREF limit, which is drawn from the European Union’s Best Available Techniques Reference Document. A limit of 10 mg/Nm³ is set for emissions of ammonia to air. (BREFs, Best Available Techniques Reference Documents, are developed in the European Union to describe industrial processes, emission etc and the best available techniques for integrated prevention and control of pollution from such processes). The assessment concluded in paragraph 11.1.1.4: “Appendix A extended the assessment of changes in air quality to nationally and locally designated sites, concluding that the <u>only site subject to significant effects</u> (emphasis added) from ammonia, nitrogen and acid deposition will be Risby Warren SSSI, which is already significantly affected by current levels of atmospheric pollution.”</p> <p>Supporting Note on Assessing the Effects of Air Quality Impacts on Protected Sites</p> <p>APP-058 Appendix A (Effects of Air Quality on European, Nationally and Locally Designated Sites’) Section 2.3 briefly explains how atmospheric dispersion modelling was used to predict the Process Contribution (PC) (i.e. the contribution of any particular pollutant from the Proposed Development) at protected sites. The maximum predicted PC anywhere within</p>
--	--	--	--

			<p>the protected site was compared with published threshold levels (critical loads/critical levels) of potential harm for the most sensitive habitat contained in the protected site. Existing levels of the pollutant (i.e. without the Proposed Development) were considered as necessary. Protected sites were screened out for all pollutants falling below the assessment thresholds and the Proposed Development was considered to make an insignificant contribution to the pollutant load at those sites.</p> <p>For some pollutants/sites the thresholds were exceeded and the Proposed Development could not be considered to be making an insignificant contribution. APP-058 Appendix A Section 3.3.8 summarises the results of the screening process described above and states that further assessment is required for the Humber Estuary SSSI (24-hour nitrogen oxides, ammonia and deposited nitrogen), Risby Warren (ammonia, deposited nitrogen and acid deposition), and Messingham Heath (acid deposition). Further assessment was then undertaken in accordance with the methodology described in APP-058 Appendix A Section 2.4. The further assessment is presented in APP-058 Appendix A Section 4 and concluded that:</p> <ul style="list-style-type: none"> • there will be no significant effect on the Humber Estuary SSSI as a result of emissions of 24hr NO_x, ammonia and deposited nitrogen; • there will be a significant effect at Risby Warren SSSI as a result of emissions of ammonia, nitrogen and acid deposition (which is already significantly affected by emissions to air); and • there will be no significant effect on Messingham Heath SSSI as a result of acid deposition. <p>Natural England are in agreement with the above conclusions for Humber Estuary SSSI and Messingham Heath SSSI;</p>
--	--	--	--

			<p>Natural England also agreed there will be no significant effects on Thorne Crowle and Goole Moors SSSI. This is agreed within Ref 11 of the SoCG with Natural England (REP10-010).</p> <p>The predicted significant effects at Risby Warren from the Proposed Development alone (together with potential cumulative/in-combination effects on protected sites) were investigated further using dispersion modelling based on a Reasonable Operating Case (ROC). The results of this for the Proposed Development alone were reported in AS-026. These results are summarised in AS-026, Sections 3.3.8 and 4.2 which conclude for Risby Warren there would be no significant effects from emissions of ammonia and nitrogen deposition but significant effects from acid deposition remained. In regard to cumulative effects, REP9-016 Paragraph 6.8.1.46, the findings of the revised modelling assessment show that the potential for cumulative likely significant effects on the following sites could not be excluded at Risby Warren SSSI only for ammonia, nitrogen deposition and acid deposition.</p> <p>Natural England are in agreement with the above conclusions for Risby Warren SSSI, see Ref 10 of the SoCG with Natural England (REP10-010).</p> <p><u>Response to point (i)</u></p> <p>It is worth noting the national policy context for applications under the Planning Act 2008 for proposed developments that fall within the remit of the Environmental Permitting Regulations:</p> <ul style="list-style-type: none"> • EN-1 – 4.10.3 - In considering an application for development consent, the IPC [Planning Inspectorate] should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or
--	--	--	--

			<p>discharges themselves. The IPC should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. It should act to complement but not seek to duplicate them.</p> <ul style="list-style-type: none"> • EN-3 - 3.7.91 Compliance with the Environmental Permitting Regulations (EPR) is enforced through the environmental permitting regime regulated by the EA. Plants not meeting the requirements of the EPR would not be granted a permit to operate. • EN- 3 - 3.7.92 The pollutants of concern arising from the combustion of waste and biomass may include NOx, SOx, NMVOCs particulates. In addition, emissions of heavy metals, dioxins and furans are a consideration for waste combustion generating stations, but limited by the EPR and waste incineration BAT conclusions and regulated by the EA. <p>The Applicant is in the process of applying for an Environmental Permit (EP) to operate. At the very least the operating plant will need to be designed and operated to comply with the new BREF limits for emissions to air (European Commission (2019) Best Available Techniques (BAT) Reference Document for Waste Incineration). These limits provided the basis for the worst-case assessment presented in APP-058. However, a plant operating at its legal emission limits for all pollutant emissions for 100% of the time, while a theoretical worst case, is not a realistic operating scenario or arguably a reasonable worst case assessment as required by the EIA regulations. In the course of Examination and in discussion with Natural England (NE), the Applicant developed a Reasonable Operating Case (ROC) of how the</p>
--	--	--	--

			<p>plant is likely to perform in real operation. This was done to better understand the 'likely significant effects' of the proposed development on protected sites (and specifically Risby Warren SSSI). The results are presented in AS-026, concluding that significant residual effects from acid deposition only would occur for Risby Warren SSSI.</p> <p>Part of the rationale for undertaking an assessment of the ROC was to provide NE with some assurance that the Environmental Permitting process would lead to an operational plant that will have effects on protected sites that are reduced to levels below those secured by the DCO with the reasonable worst-case assessment, and which are acceptable. NE will be a consultee in the EP process and will therefore need to be satisfied accordingly.</p> <p>The Reasonable Operating Case was developed on the basis of the expected emissions profile for the plant using data from the operations of existing Energy from Waste (EfW) facilities, considering the change in profile associated with achieving the lower NOx limit in the updated BREF (this being achieved with the injection of additional ammonia), and the likely hours of operation (8,000 hours per year with a reasonable estimate of plant down-time). Facilities which use selective non-catalytic reduction (SNCR), which is the technology assumed to be used for NOx abatement in the EfW, typically achieve the ammonia emissions stated in the ROC on an annual average basis. However, the limit in the assessment is an hourly average and EfWs can have short periods of higher emissions. As such, it is not possible, or required, to commit to hourly emissions limits in line with the ROC. Operational performance on certain emission parameters that is better than the new BREF limits will be secured through the EP. Precedent for this as a means to control impacts on habitats has been set at other EfWs. An example is the Cornwall Energy Recovery</p>
--	--	--	--

			<p>Centre (CERC) which was permitted with emission limits lower than in the BREF at the time, in order to confer an appropriate degree of protection on nearby sensitive habitats.</p> <p>Nevertheless, the Applicant continues to explore potential mitigation options for the significant acid deposition effect at Risby Warren SSSI and the status of this is described in (ii) below.</p>
Para 6 (ii)	The Applicant	<p>(ii) Based on the outputs of the modelling of the ROC [AS-026, REP9-011], significant residual effects from acid deposition would still remain for Risby Warren SSSI [REP8-021]. The Applicant is requested to provide further information on the potential package of measures to mitigate effects on Risby Warren SSSI as indicated in [AS-031], specifically on the potential cessation of pig farming on neighbouring land, including a quantification of the predicted pollution reduction, confirmation if this has been secured and if so, details on the agreement with the relevant landowners. The Secretary of State notes that the 'signed letter of intent' referred to in the Statement of Common Ground with Natural England [REP10-010] was not attached as indicated and invites the Applicant to provide this.</p>	<p>The significant residual effects remain for the Risby Warren SSSI because of the existing pollutant load to the site, especially from nearby activities however it is likely that future decarbonisation of steel production at Scunthorpe, which will be required, will result in significant reduction in the pollutant loads to Risby Warren SSSI. In addition, the Applicant has explored the potential cessation of outdoor pig farming on neighbouring land to Risby Warren. The Applicant has undertaken an assessment of the contributions of pollutants to Risby Warren from the neighbouring outdoor pig farm using the screening tool: Simple Calculation of Atmospheric Impact Limits – SCAIL (supported by the Environment Agency and others). The SCAIL results show that the contribution to pollutant loads at Risby Warren SSSI due to emissions from the outdoor pig farm are significantly greater than the potential emissions from the Proposed Development for both a Realistic Worst Case or a Realistic Operating Case. Taking acid deposition for example, the current contribution of the outdoor pig farm equates to approximately 177 (one hundred and seventy-seven) times the Realistic Worst Case predicted contribution from the Proposed Development.</p> <p>The Applicant has been developing a package of measures to see if further mitigation for the effects of the Project on the Risby Warren SSSI can be secured. The key components are:</p>

			<ul style="list-style-type: none"> • the relocation of the outdoor pigs so the ammonia emissions caused by them no longer affect the SSSI; and • active management of the land within Unit 5 of Risby Warren SSSI to align with the conservation objectives of the SSSI. <p>These activities have been developed with Natural England as stated in the final SoCG (REP10-010) and in ongoing discussions with them in the post examination period.</p> <p>The tenant farmer has been supportive and provided a letter of intent with a view to removing outdoor pig production from the land at Low Santon Farm. The land agent representing the landowner has also provided an email supporting the principal of this change of use (see Appendix 2 of this report).</p> <p>The Applicant is seeking to reach long-term contractual arrangements with them both over the coming months. The Applicant is expecting to implement the measures through a Section 106 Agreement as Natural England have indicated that this is their preferred mechanism for implementation rather than a conservation covenant.</p> <p>Further details of the measures proposed and the SCAIL assessment are provided in Appendix 2 of this report (Risby Warren SSSI Mitigation and Enhancement Strategy (October 2023)).</p> <p>Whilst the Applicant remains committed to securing this mitigation, the Section 106 Agreement is yet to be secured. If following on from the Letters of Intent, it does not prove possible to secure the mitigation, the Applicant's position remains as set out in the Closing Submission (AS-031), where it was considered that despite the small exceedances of the</p>
--	--	--	---

			thresholds at Risby Warren, these minimal effects are readily outweighed by the wider benefits of the Project (as set out in Chapter 5 of the Closing Submission).
Para 6 (iii)	Natural England	(iii) Natural England is requested to provide further information as to why it is content [REP8-036] that the ROC modelling parameters are an acceptable basis for the assessment and identification of effects from operational emissions to air.	Not for the Applicant
Environmental Permits			
Para 7	The Applicant	The Applicant is requested to provide an update on progress relating to securing the Environmental Permits for the development, to inform the mitigation of significant effects on the Risby Warren SSSI and securing the concrete block making facility and its operations.	<p>The following briefly summarises the status of the Applicant's preparation for Environmental Permits for the Project.</p> <p>A Permit and Consenting Strategy document has been established in liaison with the EA as part of detailed pre-application discussions. This Strategy document identified all the environmental permits and licences required as part of the NLGEP development.</p> <p>Engagement with EA has been undertaken to:</p> <ul style="list-style-type: none"> • Confirm the prescribed activities and the directly associated activities which includes the ash treatment and concrete block manufacturing facility. • Confirm the applicable Best Available Techniques (BAT) Standards which includes carbon capture and utilisation • Review the very first EP that has been granted for an EfW that includes carbon capture • Discuss the approach for considering new and novel emerging technologies that are now being considered

			<p>as part of the DESNZ Track 1 expansion for the Industrial Clusters; and</p> <ul style="list-style-type: none"> • Confirm with the EA the number and types of EP applications and the installation boundaries <p>Development of the ERF permit application has commenced and remains on-going.</p> <p>All permit applications will need to demonstrate that the Proposed Development will comply with Best Available Techniques (BAT). BAT Requirements for large combustion installations (applicable to the ERF) cover the environmental management system, monitoring, general environmental and combustion performance, energy efficiency, emissions to air, emissions to water, materials efficiency and noise. Efficiencies in the use and treatment and re-use of water are all elements that are regulated under EPs and recent efficiencies to reduce water consumption and the use of treated raw water has had to be considered under the permitting requirements.</p> <p>In addition to the implementation, and as part of the review of the BAT, the Applicant will consider all potential environmental impacts resulting from the development, where necessary technical competence will be evidenced, appropriate standards demonstrated and detailed modelling will be undertaken to support in demonstrating that the Operator can comply with the conditions of the environmental permits and licences being sought.</p> <p>The Applicant has continued to engage with the EA as recently as 29th September 2023 and tabled a series of questions on the following topics;</p> <ul style="list-style-type: none"> • Carbon capture • Carbon dioxide utilisation in the manufacture of concrete products; and
--	--	--	---

			<ul style="list-style-type: none"> • The classification of end of waste status <p>Positive feedback was provided to the Applicant which highlighted the following points;</p> <ul style="list-style-type: none"> • The EA will require new energy operators to be decarbonisation-ready (including EfWs). The proposed development is decarbonisation-enabled. • The EA is keen to encourage carbon capture for Air Pollution Control Residues (APCR) to be converted to aggregate. The Proposed Development includes the Concrete Block Manufacturing Facility that will utilise the APCR and the carbon dioxide captured from the Plant. • The EA notes that carbonation of APCR may be the only use of captured CO2 at EfW plants until CO2 transport and storage infrastructure is consented, built and commissioned. The Proposed Development includes carbonation as part of the concrete block manufacturing process. <p>The ERF and future permit submissions will need to include atmospheric dispersion modelling, as appropriate and in accord with the Regulator’s guidance and stipulations, based on the detailed design parameters for the facilities together with a Habitats Regulation Assessment. Natural England will be a primary consultee to the permitting process and will need to be satisfied that the necessary considerations and measures have been applied in the design and included in the permitting conditions to ensure that effects on protected sites and species are within acceptable levels. In a call with Natural England on 18th October 2023 relating to the Risby Warren SSSI they agreed that until the BATs are selected and the technology suppliers are contracted, the EP process will provide</p>
--	--	--	--

			<p>confidence that the Reasonable Operating Case (ROC) will be achieved.</p> <p>The ROC for the Energy Recovery Facility (ERF) will be refined in the process of detailed design and it is anticipated that operational performance on certain emission parameters may be better than the new BREF limits. These will be secured through the EP. Precedent for this as a means to control impacts on habitats has been set at other similar facilities. An example is the Cornwall Energy Recovery Centre (CERC) which was permitted with emission limits lower than in the BREF at that time, in order to confer an appropriate degree of protection on nearby sensitive habitats.</p> <p>The Secretary of State will recall that the Cornwall case was also considered in the Court of Appeal (CORNWALL WASTE FORUM ST DENNIS BRANCH and THE SECRETARY OF STATE FOR COMMUNITIES AND LOCAL GOVERNMENT- and -SITA CORNWALL LIMITED [2012] EWCA Civ 379) on the issue of the respective controls as between competent authorities. At paragraph 38, the judge concludes <i>“Thirdly, in the context of the planning appeal the debate about responsibility under the Directive is in itself of no practical significance. Whether or not the Secretary of State remained the decision-maker for the purposes of the Habitats Directive, he could not avoid responsibility for the planning decision, one aspect of which, as he recognised, was whether there would be “harm to acknowledged nature conservation interests”. On the facts of this case the two issues were inextricably linked. By the same token, in so far as the possibility of harm to those interests arose from stack emissions, he was entitled – in either capacity – to be guided by the expertise of the relevant specialist agencies, the Environment Agency and Natural England. It would be only if their guidance was shown to be flawed in some material way that his own decision, relying on</i></p>
--	--	--	--

			<p><i>that guidance, would become open to challenge for the same reason.”</i></p> <p>As outlined above, requirement 18 within the DCO secures the development of the ash treatment and concrete block manufacturing facility and the EA has confirmed that it is supportive of the treatment of bottom ash and APCR using captured CO2 as part of the suite of EPs.</p>
Noise			
Para 8	The Applicant	<p>The Applicant is requested to comment on the suitability of the following noise requirement:</p> <p>The rating level (L_{Ar}) of noise from the operation of the authorised development shall not exceed 45 dB L_{Ar} for any fifteen-minute period between 23:00 and 07:00, and 50 dB L_{Ar} for any one-hour period between 07:00 and 23:00, determined one metre free-field external to any window or door of any existing permanent residential premises using the definitions and methods described in ‘Methods for rating and assessing industrial and commercial sound’ British Standards Institution BS4142 2014+A1:2019.</p>	<p><u>Consistency with BS 8233</u></p> <p>The requirement serves to limit noise from the operation of the proposed development. Day and night noise limits are set at existing permanent residential premises. The limits are within the range of guideline values set out in BS 8233 which is a suitable standard for this purpose.</p> <p>The requirement sets limits in terms of a rating level in accordance with BS 4142, so that a correction needs to be applied if any acoustic features are present in the noise from the Proposed Development. This makes the limits potentially more stringent (by a correction of up to 18 dB to account for various acoustic features of the sound) than the guideline values in BS 8233, which does not provide specific guidance on corrections. BS 8233 notes, in relation to the internal acoustic environment, however, that distinctive character needs to be taken into account and using rating levels provides a method of doing this. It should be noted that BS 8233 does not mention the need to take distinctive character into account in relation to noise affecting external areas and so the requirement is potentially more stringent than BS 8233 in this respect. Therefore, it is suggested that the daytime limit is set in terms of an average (L_{Aeq}) noise level rather than a rating noise level (L_{Ar}).</p>

			<p><u>The daytime limit</u> The requirement sets a limit of 50 dB, L_{Ar} during the daytime. BS 8233, with regards to daytime use of external amenity space, provides a guideline-values of 50 dB, $L_{Aeq,T}$ and also 55 dB, $L_{Aeq,T}$ which it states would be acceptable in noisier environments.</p> <p>The baseline sound level at Charmaine in Amcotts, as used in the construction noise assessment and reported in Table 12 of the ES noise assessment (53 dB, $L_{Aeq,12h}$), is already above 50 dB. Therefore, Charmaine and receptors close to it in Amcotts can be described as experiencing a noisier environment which suggests that a criterion of 55 dB, L_{Aeq} based on the guidance in BS 8233 would be more appropriate at this location than the more stringent 50 dB, L_{Ar} that is proposed.</p> <p><u>Setting limits by assessment location</u> The requirement sets the same noise limit at all existing permanent residential premises.</p> <p>As set out above, Charmaine and receptors close to it experience an elevated noise environment and therefore a 55 dB, L_{Aeq} noise limit is justified at these locations. The requirement should be clear that this noise limit applies at not only Charmaine but also other residential premises nearby which also experience elevated baseline noise levels. For all other receptors, a limit of 50 dB, L_{Aeq} is justified because baseline noise levels are lower.</p> <p>A practical way to set different noise limits at different locations could be to adopt the ES assessment locations. The ES noise assessment assessed operational noise impacts at seven</p>
--	--	--	--

			<p>residential property locations, as reported in Table 20. Each location is representative of one or more residential premises nearby. For example, Charmaine in Amcotts was used to represent a number of residential premises to the west of Amcotts, close to the Proposed Development. Each assessment location was chosen because it was likely to be the worst affected of the properties represented by that location. Therefore, demonstrating compliance at all of the ES assessment locations would demonstrate that the appropriate noise limit was met at all existing permanent residential premises.</p> <p><u>Suggested amendments to the requirement</u> The following amendments to the requirement (shown in red) are therefore suggested:</p> <p><i>The rating level (L_{Ar}) of noise from the operation of the authorised development shall not exceed 45 dB L_{Ar} for any fifteen-minute period between 23:00 and 07:00, and 55 dB L_{Aeq} for any one-hour period between 07:00 and 23:00, determined one metre free-field external to any window or door of Charmaine in Amcotts, and 45 dB L_{Ar} for any fifteen-minute period between 23:00 and 07:00, and 50 dB L_{Aeq} for any one-hour period between 07:00 and 23:00, determined one metre free-field external to any window or door at any other existing permanent residential premises considered in the noise chapter of the environmental statement using the definitions and methods described in 'Methods for rating and assessing industrial and commercial sound' British Standards Institution BS4142 2014+A1:2019.</i></p>
DCO			

<p>Para 9</p>	<p>The Applicant</p>	<p>The Applicant is requested to explain the necessity for proposed Article 8 of the DCO, as set out below, which would displace provisions in a DCO, if granted, where they conflict with later planning permission:</p> <p><i>1. If planning permission is granted under the powers conferred by the 1990 Act for development any part of which is within the Order limits following the coming into force of this Order that is—</i></p> <p><i>(a) not itself a nationally significant infrastructure project under the 2008 Act or part of such a project; or</i></p> <p><i>(b) required to complete or enable the use or operation of any part of the development authorised by this Order. then the carrying out, use or operation of such development under the terms of the planning permission does not constitute a breach of the terms of this Order.</i></p>	<p>There are several examples of this article being included in other made DCOs, some of which are included below. As such this is not novel drafting but there are multiple examples of precedent being set including this article.</p> <p>This article is based on article 16 of The East Northamptonshire Resource Management Facility Development Consent Order 2023, article 7 of The A47 Wansford to Sutton Development Consent Order 2023, article 7 of the A47 Blofield to North Burlingham Development Consent Order 2022, article 7 of the A47/A11 Thickthorn Junction Development Consent Order 2022, article 7 of the A30 Chiverton to Carland Cross Development Consent Order 2020, and article 8 of The Tees Combined Cycle Power Plant Development Consent Order 2019.</p> <p>This article is not intended to permit a planning permission of itself to override or displace any provisions in the Order. As such, the undertaker would not be able to carry out any development pursuant to the planning permission which would prevent compliance with the terms of the Order.</p> <p>This article permits certain development authorised by a planning permission granted under the Town and Country Planning Act 1990 that is within the Order limits to be carried out pursuant to the terms of the planning permission without breaching the Order. This is not a model provision, but ensures that the undertaker does not breach section 161 of the Planning Act 2008 in carrying out certain development pursuant to a grant of planning permission, provided that development is not of itself an NSIP or part of one, or required to complete or enable the use or operation of any part of the authorised development.</p> <p>This article is considered to be necessary for the Proposed Development as the Order Limits (as shown on the Land Plans) are</p>
---------------	----------------------	--	---

			<p>extensive and include four distinct geographical areas relating to the specific elements of the Project:</p> <ul style="list-style-type: none"> • The Energy Park Land • The Northern District Heat and Private Wire Network • The Southern District Heat and Private Wire Network • The Railway Reinstatement Land <p>This article would therefore ensure that if planning permission is granted by the local planning authority for a part of the Order Limits (either for the benefit of the undertaker or any other landowner) then that party would not automatically be in breach of the Order, provided that development is not of itself an NSIP or part of one, or required to complete or enable the use or operation of any part of the authorised development.</p>
Cadent Gas Protective Provisions			
Para 10	The Applicant, Cadent Gas	<p>The Applicant and Cadent Gas are requested to provide an update on the status of protective provision negotiations. Both parties are also invited to comment on the necessity for the following section of the PPs within Cadent Gas’s submission [REP9-057]:</p> <p style="text-align: center;"><i>“Protective works to buildings</i></p> <p><i>5. (1) The undertaker must exercise the powers conferred by article [##] (protective work to buildings) so as not to obstruct or render less convenient the access to any apparatus without the written consent of Cadent (such consent not to be unreasonably withheld or delayed)”</i></p>	<p>The below is a joint response between the Applicant and Cadent Gas.</p> <p>The Applicant and Cadent Gas reached agreement on all but two matters within the protective provisions: the inclusion of a cap on the indemnity to be given to Cadent by the Applicant, and Cadent's preference for security in the sum of £50 million to be provided by the Applicant. The Applicant's case and position in respect of Sections 127 and 138 of the Planning Act 2008 is set out in its Deadline 8 submissions on this point (see paragraph 3.9 of Document 9.34, ref: REP8-024) and the form of protective provisions included in the draft DCO (REP10-004).</p> <p>Cadent Gas submitted its preferred form of protective provisions (REP2-091) in its Deadline 2 Submission (REP2-090) and again in its Deadline 8 Submission (REP8-032 and REP8-033) and has set out its case in relation to these points</p>

			<p>in its Deadline 2 Submission (REP2-091), Deadline 8 Submission (REP8-032) and Deadline 9 Submission (REP9-057).</p> <p>The parties are in agreement that it is for the Secretary of State to decide on the above outstanding issues.</p> <p>In relation to the wording proposed involving protective works to buildings, the Applicant and Cadent are both agreed that, notwithstanding the form of protective provisions included by the Secretary of State, this wording is not required as there is no associated article dealing with protective works to buildings in the proposed DCO (REP10-004).</p>
Transport: Access and egress to Jotun Paints			
Para 11	Applicant, Jotun Paints, The Health and Safety Executive (HSE), North Lincolnshire Council (NLC)	<p>The Secretary of State notes that by the end of the Examination no conclusion was reached to secure the safe access and egress to Jotun Paints, an upper tier Control of Major Accident Hazards (COMAH) site. The Applicant, Jotun Paints, The Health and Safety Executive (HSE) and North Lincolnshire Council (NLC) are invited to comment on a recommended requirement for the HSE, NLC and Jotun Paints to have a safety plan in place that facilitates their ongoing operation in a safe manner whilst construction is undertaken which has the potential to affect their access and egress arrangements.</p>	<p>The Applicant's position is that a requirement is not necessary in relation to this point as there are already a number of requirements and articles that address and/or govern this issue.</p> <p>As part of its Code of Construction Practice (CoCP) (AS-028) the Applicant committed to consulting and working with Jotun Paints to assess any concerns around emergency evacuation plans and emergency service access to the Jotun Paints site. See PDF page 91 of Appendix A of the CoCP (AS-028). The CoCP is secured through requirement 4(3) of the draft DCO (REP10-004) which requires that the construction environmental management plan (CEMP) is to be in accordance with the CoCP and that no part of the authorised development, save for the preliminary works, can commence under the CEMP has been approved for that part. The Applicant has made minor amendments in ES Chapter 19: Mitigation (Document Reference 6.2.19), the CoCP (Document</p>

			<p>Reference 6.3.7) and the OEMP (Document Reference 6.3.8) to emphasise this matter.</p> <p>In addition to the above, street works are proposed along the stretch of Stather Road that abuts the Jotun Paints site, as shown on the Rights of Way and Access Plans (REP7-007). Under Article 11 (which governs street works) the Applicant would have powers to carry out certain works in the street (as listed in Article 12(1)) but this would not provide powers to stop up any accesses and the exercise of these powers is subject to first obtaining consent of the street authority (see Article 12(3)).</p> <p>Article 14 of the draft DCO includes powers for the Applicant to permanently stop up those streets listed in column (2) of Schedule 4 of the draft DCO. The streets surrounding the Jotun Paints site are not included within this list and as such the Applicant does not have the powers to permanently stop up the streets within that area.</p> <p>Pursuant to Article 15 of the draft DCO, the Applicant would have powers to temporarily stop up any street within the Order Limits for the purposes of carrying out and maintaining the authorised development. Exercising of this power is subject to receipt of consent by the highway authority. We consider that in deciding whether to give consent, the highway authority, as local traffic authority would be obliged to have regard to the network management duty pursuant to section 16 of the Traffic Management Act 2004. In addition, when deciding whether or not to make a temporary traffic regulation order an authority would have to have regard to section 122 of the Road Traffic Regulation Act 1984, including the desirability of securing and maintaining reasonable access to premises under section 122(2)(a) of the 1984 Act. We consider that in deciding to give consent under Article 15 of the draft DCO, a reasonable</p>
--	--	--	--

			<p>authority would have reasonable regards to these factors and would be well versed in doing so.</p> <p>In addition to the above constraints, in their Local Impact Report, North Lincolnshire Council (at 7.43) (REP1-019) stated that it would expect to be involved in any early-stage discussions surrounding temporary traffic management and traffic regulation orders. The Applicant's position on this is that it also expects early engagement to take place on this point with NLC as highway authority. This is secured through Requirement 10 of the draft DCO which requires that prior to commencing any part of the authorised development (save for preliminary works) a construction traffic management plan is to be agreed with the relevant planning authority. NLC as highway authority would feed into this approval process.</p> <p>Notwithstanding the above protections, the Applicant has also agreed further protections to Jotun Paints by way of a binding side letter, a signed copy of which is attached as Appendix 3.</p> <p>As such the Applicant believes that the above adequately addresses the concerns of Jotun Paints and a further requirement on this is not needed.</p>
--	--	--	---

APPENDIX 1: WATER RESOURCE EFFICIENCIES DESIGN NOTE



Planning Act 2008

North Lincolnshire Green Energy Park

Water Resource Efficiencies

Design Note

Appendix 1

PINS reference: EN010116

October 2023

Revision number: 0



Design Note

Project North Lincolnshire Green Energy Park
Subject Water Resource Efficiencies
Project no 0046658
Date 20 October 2023

Revision	Description	Issued by	Date	Approved (signature)
P01	For Information	FR	20.10.2023	

1 Introduction

The purpose of this design note is to record the agreed position for the water supply between the Applicant and Anglian Water for the North Lincolnshire Green Energy Park project. It is part of the response to the letter received from the Secretary of State, dated 22nd September 2023, which asked the Applicant and Anglian Water to provide an update and/or information on how the necessary water supply for the building and operation of the plant will be secured.

The note reflects the meetings, phone conversations and various email exchanges between Anglian Water and the Applicant team. A proposed requirement to inset into the DCO has been jointly prepared as an agreed mechanism between Anglian Water and the Applicant to agree the future water supply.

2 Water Demands

The following section provides a summary of how the proposed water demands for the Project have been reduced during each step of the Development Consent Order (DCO) process, from the original water demand in the budget estimate to the current peak flow of 3.23l/s.

2.1 DCO Pre-application

As part of the DCO pre-application process, a budget quote to provide water supply for the project was requested to Anglian Water in April 2021.

The original water demand for the site was calculated as 12.5l/s for the plant plus the refill of the fire tank of 62l/s for the 8-hours required to refill. Demands were calculated assuming town's water would supply each facility, with no re-use of water between facilities. Demands were calculated from process modelling and from mass balances for each facility.

In order to provide the supply, Anglian Water's initial response stated that a significant investment was required to meet the separate fire water demand. Therefore, the proposed water demand was reduced to 12.5l/s only. This option would utilise a secondary tank to fill the fire tank in the required 8-hours, meaning the high incoming flow from Anglian Water will not be required.

In response to this, Anglian Water confirmed they could provide between 10l/s to 12.5l/s to the project. Refer to Appendix A for the budget estimate response.

2.2 DCO Pre-examination

During development of the Project, the water demand was reviewed and efficiencies in the process were sought. To reduce demands, an alteration was made to the design of the Carbon Capture scheme in consultation with technology providers, such that it demanded less water. The overall water demand was reduced to 6l/s.

2.3 DCO Examination

During Examination of the DCO application, in the Deadline 8 submission, Anglian Water identified a risk of insufficient water supplies available to meet new and expanded water demands for non-domestic uses from planned projects in water resource zones across the Anglian Water region. This was a result of the preparation of the statutory Water Resources Management Plan 2025-2050 (WRMP24). The Panel of Examining Inspectors required clarification on this matter via the Rule 17 letter and Anglian Water provided further detail in the Deadline 9 submission where they stated that they are unable to secure a water supply for the project, at least up to 2030.

The Applicant team undertook work to reduce the water demand through further efficiencies. A strategy was developed to reuse all the water condensed from the carbon capture facility and also, treat and reuse all the trade effluent generated in the carbon capture and other facilities. Carbon capture provides the majority of the flow to be re-used at 2.8l/s. This process water will be collected and transferred to an on-site dedicated treatment plant within the Energy Recovery Facility building, where a multi-stage treatment process will be applied that includes:

- Balancing tank.
- Chemical addition to neutralise the pH.
- Roughing to remove metals.
- Filtration via a 2-stage process.

Any filter backwash water will be returned to the inlet of the effluent treatment plant if it is suitable. If not, it will be collected and taken off site.

To complete the treatment process, there will need to be disinfection of the flows via chlorine.

With these further efficiencies, the proposed water demand is reduced to a total flow of 3.23l/s for 2033, when it is expected the project is fully in operation. The water demands per year are indicated below:

Year	Process	Potable	total	NFPA 850	BS EN 12845
2025	0	0.63	0.6	0.63	0.63
2026	0	1.53	1.5	1.53	1.53
2027	0	2.49	2.5	2.49	2.49
2028	0	2.20	2.2	2.20	2.20
2029	2.00	0.08	2.1	51.55	11.44
2030	2.00	0.08	2.1	51.55	11.44
2031	3.00	0.15	3.2	55.15	15.04
2032	3.00	0.16	3.2	55.15	15.04
2033	3.00	0.23	3.2	55.15	15.04

It should be noted that during construction, a varying amount of water will be required with an estimated peak in 2027 of 2.49l/s potable water for construction workers plus any water required for the construction processes.

With regards to water supply for fire, Anglian Water stated in the response for the Examining Authority Rule 17 letter that *'the project also needs to supply the fire tank. Although this would only need to be filled periodically and does not necessarily require potable water, it still must be factored into the overall water supply requirements for the project. However, Anglian Water has advised the applicant that water will be available for firefighting purposes.'*

3 Discussions with Anglian Water

In September 2023, the Secretary of State requested the Applicant and Anglian Water provide an update/or information on how the necessary water supply for the building and operation of the plant will be secured. A meeting between Anglian Water and the Applicant was held the 29th of September 2023 to agree a joint response to the Secretary of State. Refer to Appendix B for meeting minutes.

3.1 Agreed Position with Anglian Water

During the meeting Anglian Water confirmed that they have a legal responsibility and the capacity to supply potable water required by the visitors (Visitor's Centre facility), and the staff who will work at the plants.

Anglian Water also confirmed they will supply water for firefighting.

Anglian Water confirmed that the assigned water supply for the buildings that are within the Order Limits that will be demolished as part of the project, can be used during the construction period for the welfare facilities and during operation for staff and visitors. Refer to Section 3.2 for buildings that will be demolished.

Anglian Water stated that following the Applicants efforts to increase water resource efficiency and overall reductions in water use, they would look to supply the remaining water for process use, either via the existing potable network or raw water for process use (via tankers or other methods).

Anglian Water and the Applicant have developed a proposed requirement to be inserted into the DCO in response of the Secretary of State's letter which would ensure that the water supply strategy for the Project is established and secured prior to commencement of the Energy Park Works (save for the preliminary works). The requirement is set out below:

- 1) *No part of the Energy Park Works may commence, save for the preliminary works, until a Water Resources Assessment is submitted to and agreed with Anglian Water following consultation with the Environment Agency on matters relating to their function and subsequently approved by the relevant planning authority. The Water Resources Assessment will include a scheme to deal with the supply of water during both construction and operation of the authorised development including final process design, maximum daily demand, and water efficiency measures.*
- 2) *The scheme submitted and approved under sub-paragraph (1) must be in accordance with the environmental statement and for the operational water supply must be included in the operational environmental management plan submitted pursuant to Requirement 4(5) – (7) and for the construction water supply must be included in an update to the construction environment management plan submitted pursuant to Requirement 4(2).*
- 3) *The scheme approved under sub-paragraph (1) must be implemented as approved throughout the construction and operation of the energy park works unless agreed otherwise by the relevant planning authority following consultation with the Environment Agency and Anglian Water as necessary.*

“Anglian Water” means Anglian Water Services Limited, the statutory water supply provider for the North Lincolnshire Green Energy Park under the Water Industry Act 1991 and responsible for ensuring the cumulative impacts of development do not compromise the supply of water for domestic purposes. “Water Resources Assessment” includes all designs, drawings, specifications, resource assessments, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe the source and supply of water for construction and operation.

3.2 Current Water Supply to the Site

The following buildings, that will be demolished as part of the Project, have existing water supply that can be used for the project:

Building	Address	Associated Water Supply (l/s)
Bellwin House	Bellwin Drive, Flixborough, Scunthorpe, DN15 8SN	0*
Glanford House	Bellwin Drive, Flixborough, Scunthorpe, DN15 8SN	0*
Industrial Units 2-28 (even numbers)	First Avenue, Flixborough Industrial Estate, DN15 8SE	0.0147 l/s
Park Ings Farm	Stather Road, Flixborough Industrial Estate, Neap House Farm, Flixborough, DN15 8UE	0.007 l/s

* Noted that these buildings have been unoccupied. Based on typical benchmarking for office buildings, it is estimated that Bellwin House and Glanford House would have had a supply of approx. 0.64l/s

3.3 Estimate of Deficit

The total water demand for the Project is 3.23l/s, of which 0.23l/s is a potable water supply for domestic use. As stated in Section 3.1, Anglian Water have a responsibility to supply potable water for workers and visitors. Therefore, the project will require **3l/s** for process water or **260m³** of water per day, that ideally will be supplied as potable water but, if not available, this can be fulfilled by raw water. To reduce demands on the potable network, options to reuse process water are being considered as detailed in Section 2.3.

During construction, it is estimated a peak of 2.49l/s of potable water that will be supplied by Anglian Water as potable for use by the large workforce. With regards to the water required for the construction processes, an onsite concrete batching plant is being proposed as this reduces the number of vehicle deliveries of the required bulk materials. On site batching also allows the provision of raw water by tanker to refill the batching plant storage.

If ready-mix concrete supplies from offsite were utilised, it has been estimated that there would be a peak of 18 delivery concrete mixer vehicles attend site at the peak of each day, with an assumed capacity of 6m³ of concrete per vehicle.

The batching plant is a better option, and Anglian Water agreed that an intermittent bulk raw water supply to this batching plant is preferable to them providing an alternative potable supply elsewhere in their area to a ready-mix concrete supplier. Wherever the concrete is manufactured, the same volume of water is required.

Based on an assumption for the overall quantity of concrete for the site and an uplift to account for other construction activities, an estimate of **20m³** of water during an 8-hour working day (**0.69l/s**) is assumed for construction.

3.4 Options for Alternative Supply from Anglian Water

In the case the current Anglian Water potable network cannot provide the estimated deficit stated in Section 3.3, raw water could be supplied in tankers. There are companies like Water Direct that can operate 30,000-litre capacity tankers. In this case, in order to provide 260m³ of process water per day, this would equate to 9 tanker deliveries per day during operation and 1 tanker delivery per day during construction.

The 9 tanker delivery movements would be spread across the day which would seek to avoid highway peak periods, wherever possible, with an envisaged peak hourly movement that will not exceed two movements. As the water will be held in a bulk water tank at the plant, this intermittent delivery arrangement can be undertaken.

Given the low number of tanker movement anticipated, which would fall within day-to-day traffic variation, this is unlikely to result in a discernible environmental impact and does not alter either the transport assessment or noise environmental impact EIA assessments.

4 Summary and Conclusion

As the Project has progressed, the Applicant team have developed a number of water resource efficiency strategies to reduce the original water demand of 12.5l/s for the Project (plus the firefighting supply) to 3.23l/s.

Anglian Water will provide potable water supply during construction (2.49l/s) and when the project is in operation (0.23l/s).

Anglian Water can provide water supply for firefighting, but they and the Applicant are seeking to use non-potable or raw water provision, as this is more sustainable.

Anglian Water is looking to supply the remaining water for process use either via the existing potable network or raw water for process (via tanker or other method).

Anglian Water and the Applicant have developed a proposed requirement to be inserted into the DCO which would ensure that the water supply strategy for the Project is established and secured prior to commencement of the Energy Park works.

Appendix

Appendix A Anglian Water Budget Quote Response

Francisco Rodriguez

From: Francisco.Rodriguez@BuroHappold.com
Subject: FW: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

From: Katharine Clarke <kClarke3@anglianwater.co.uk>
Sent: 30 April 2021 14:13
To: Paige Bryce <Paige.Bryce@BuroHappold.com>
Subject: RE: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

****External Email. This email originated from outside Buro Happold.****

Good afternoon Paige

Further to your request for a budget price for the installation of a water supply, which can provide between 10l/s – 12.5 l/s. (Options 2 & 4)

A price has been calculated to undertake a proposed connection of the existing 300mm DI/CM water main in Bellwin Drive at roughly SE8625614468, with a 100mm connection, to install approximately 25m of 125mm HPPE pipework with a 50mm meter, with all in-line associated fittings. Undertake testing and sampling of the new pipe work and carryout reinstatement of the highway, and finally undertake a proposed connection onto your private pipework.

The budget price is £19,992.00+ VAT

If I can be of further assistance at that time please advise and we look forward to hearing for you shortly, with your requirements at which time a formal design can be undertaken and terms issued.

Kind regards



Katharine Clarke
Main Laying Design – Development Services
Telephone: 01522 341547

Anglian Water Services Limited
Enterprise House, Witham Park, Lincoln, LN5 7JE



From: Katharine Clarke
Sent: 22 April 2021 07:50
To: Paige Bryce <Paige.Bryce@BuroHappold.com>
Subject: RE: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

Thank you Paige, I will get this arranged.

Kind regards



Katharine Clarke

Main Laying Design – Development Services
Telephone: 01522 341547

Anglian Water Services Limited

Enterprise House, Witham Park, Lincoln, LN5 7JE



From: Paige Bryce <Paige.Bryce@BuroHappold.com>

Sent: 21 April 2021 14:26

To: Katharine Clarke <kClarke3@anglianwater.co.uk>

Cc: Future Manyumba <fManyumba2@anglianwater.co.uk>; Colin Byrne <Colin.Byrne@BuroHappold.com>;
Francisco Rodriguez <Francisco.Rodriguez@BuroHappold.com>; 046658 North Lincs Green Energy Park
<046658@burohappold.onmicrosoft.com>

Subject: RE: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

EXTERNAL MAIL - Please be aware this mail is from an external sender - THINK BEFORE YOU CLICK

Hi Katharine,

Yes a budget quote is all we require at this stage. We do not have any ground analysis data.

Thanks.

Kind regards,
Paige

Paige Bryce

Graduate Engineer

Buro Happold | Cities Infrastructure Leeds

T: +44 (0)113 2042200

www.burohappold.com | [Twitter](https://twitter.com) | [Instagram](https://www.instagram.com)

BURO HAPPOLD

From: Katharine Clarke <kClarke3@anglianwater.co.uk>

Sent: 21 April 2021 11:52

To: Paige Bryce <Paige.Bryce@BuroHappold.com>

Cc: Future Manyumba <fManyumba2@anglianwater.co.uk>

Subject: RE: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

****External Email. This email originated from outside Buro Happold.****

Good morning Paige

Following receipt of the Point of Connection plan, I liaised with our Water Modellers, as it was a different location to that previously assessed; they have confirmed a connection can be made onto the existing 300mm DI/CM main in Bellwin Drive.

Could I please request that you confirm your requirements at this time, I was of the understanding that a budget price was required only, so you could assess the options previously submitted, and as Option 2 and 4 are very similar I was proposing to provide one budget price which would cover both scenarios.

If however you require a formal design and cost please do confirm which option you require.

Extract below from previous email with options quoted. I have removed data regarding Option 3 as this was later advised it was not viable.

Option 1 – *Flow of 12.5 l/s for the plant, then flow for the refill of the fire tank of 62l/s for the 8 hrs required to refill. – To supply the 12.5l/s then a permanent rezone of the Messingham area of the network will be required onto the new Lincolnshire Lakes main which is currently being commissioned. There should be no additional fittings or meters required for this just flushing of the network. For the 12.5l/s supply then a 125mm OD / 100mm ID connection with a 50mm Helix5000 meter will be required. For the 62l/s fire supply then approximately 5.6km of 355mm HPPE main will be required from SE8722409470 to SE8612013278. This is what I've obtained very rough costs for at £2.2million and I've sent it off for constraints mapping which will give us likely timescales for delivery and more accurate costs. As soon as I get the costs back then I'll forward them on to you. For the 62l/s then a 280mm OD / 250mm ID connection would be required off the new 355mm main.*

Option 2 – *Flow of 12.5 l/s only. This option would utilise a secondary tank to fill the fire tank in the required 8 hours, meaning we would not require the high incoming flow from Anglian water. - To supply the 12.5l/s then a permanent rezone of the Messingham area of the network will be required onto the new Lincolnshire Lakes main which is currently being commissioned. There should be no additional fittings or meters required for this just flushing of the network. For the 12.5l/s supply then a 125mm OD / 100mm ID connection with a 50mm Helix5000 meter will be required.*

Option 4 - *Flow of 10 l/s only (reduced to fit existing capacity). This option would utilise a secondary tank to fill the fire tank in the required 8 hours, meaning we would not require the high incoming flow from Anglian water. – This level of demand could be supplied from the existing network without the need for any reinforcement or rezone of the network. Suggest a 125mm OD / 100mm ID connection with a 40mm Helix5000 meter for this option.*

Could I please also enquire, as to whether you have any ground analysis for the area with full chemical analysis, so that the working area can be assessed for possible contaminated land, if not I will consult with the local council.

If a budget price is required I would hope to have this issued within the next 12 days, however if a formal design is required at this time, our level of service is 28 days.

Thank you



Katharine Clarke

Main Laying Design – Development Services
Telephone: 01522 341547

Anglian Water Services Limited

Enterprise House, Witham Park, Lincoln, LN5 7JE



From: Paige Bryce <Paige.Bryce@BuroHappold.com>

Sent: 20 April 2021 11:39

To: Katharine Clarke <kClarke3@anglianwater.co.uk>

Cc: Francisco Rodriguez <Francisco.Rodriguez@BuroHappold.com>; Colin Byrne <Colin.Byrne@BuroHappold.com>;
046658 North Lincs Green Energy Park <046658@burohappold.onmicrosoft.com>

Subject: RE: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

EXTERNAL MAIL - Please be aware this mail is from an external sender - THINK BEFORE YOU CLICK

Hi Katherine,

Following on from our call yesterday, I have marked up a single connection point location at the site boundary as required.

Would you be able to confirm when we will receive the quotations?

Please let me know if you require any further information.

Thanks.

Kind regards,
Paige

Paige Bryce

Graduate Engineer

Buro Happold | Cities Infrastructure Leeds

T: +44 (0)113 2042200

www.burohappold.com | [Twitter](https://twitter.com/burohappold) | [Instagram](https://www.instagram.com/burohappold)

BURO HAPPOLD

From: Katharine Clarke <kClarke3@anglianwater.co.uk>

Sent: 14 April 2021 12:26

To: Paige Bryce <Paige.Bryce@BuroHappold.com>

Subject: NSD-0116337 - 10639802 Water Supply to Green Park Energy Second Avenue Scunthorpe

****External Email. This email originated from outside Buro Happold.****

Paige good afternoon, I was advised you were unavailable when I called, so said I would drop a quick email, however if you would like to discuss please call me on 01522 341547.

In relation to the above water supply application which I understand you have been liaising with Future, Anglian Waters Growth Liaison Manager.

Future has requested that a budget price be produce for an option previously discussed, of connecting into the existing water asset in Second Avenue, with a 100/125mm metered connection, which would give a reduced flow requirement of approximately 12.5 l/s.

Can you please confirm the location of the required site connection point, this is usually located on the sites boundary, but from the details previously submitted this is a litte unclear, this will then enable me to determine what if any main laying is required, from the existing network connection to the proposed site connection point.

Thank you



Katharine Clarke
Main Laying Design – Development Services
Telephone: 01522 341547

Anglian Water Services Limited
Enterprise House, Witham Park, Lincoln, LN5 7JE



The information contained in this message is likely to be confidential and may be legally privileged. The dissemination, distribution, copying or disclosure of this message, or its contents, is strictly prohibited unless authorised by Anglian Water. It is intended only for the person named as addressee. Anglian Water cannot accept any responsibility for the accuracy or completeness of this message. Contracts cannot be concluded with us by email or using the Internet. If you have received this message in error, please immediately return it to the sender at the above address and delete it from your computer. Anglian Water Services Limited Registered Office: Lancaster House, Lancaster Way, Ermine Business Park, Huntingdon, Cambridgeshire, PE29 6XU Registered in England No 2366656 Please consider the environment before printing this email.

This transmission is confidential and intended solely for the person or organisation to whom it is correctly addressed. If you are not the intended recipient of this transmission, you should not take any action in reliance on it. Further, this transmission may contain confidential design and other information owned by Buro Happold Ltd. You should not copy, distribute, use, offer for sale or hire such information or in any way infringe the design and intellectual property rights of Buro Happold Ltd. It is intended that communication by email from Buro Happold Ltd or its employees is limited to communications connected to the services provided by Buro Happold Ltd. Buro Happold Ltd accepts no liability for any communications not connected to the services it provides. Computer viruses may be transmitted or downloaded onto your computer system via email communication. It is the recipient's responsibility to take any action necessary to prevent computer viruses being transmitted in this way. Accordingly, Buro Happold Ltd disclaims all responsibility which arises directly or indirectly from such transmission of computer viruses. Buro Happold Ltd. Registered in England: 2049511.

Appendix B Meeting minutes with Anglian Water

Meeting:

Water supply- Meeting with Anglian Water regarding agree a joint response for the SoS Letter about how water supply will be secured to the project.

Date:

29/09/2023 10:30-11:30

Attendees:

Nathan George – NG (BH)
Alan Corner – AC (CWC)
Francisco Rodriguez – FR (BH)
Andrew Bradley – AB (Solar21)
Colin Hammond – CH (Solar21)
Martin White – MW (Jacobs) responding to DCO's on behalf of Anglian Water
Geoff Darch – GD (Anglian Water)
Darl Sweetland – DS (Anglian Water)
Ed Richardson – ER (Anglian Water)

**Intro**

- BH gave an intro/ overview of the water requirements.
 - Initial budget quote
 - Examination period
 - Reduction in demand requirements through efficiency of use and re-use, etc.
- Cross Examination (how it was left after Examination)
 - SOCG – Solar 21/Anglian Water to work together to come up with a solution.
- SoS Letter
 - *Water Supply 3. The Secretary of State notes that at the end of the examination period a water supply for the construction and subsequent operation of the development could not be guaranteed prior to 2030. The Secretary of State requests the Applicant and Anglian Water to provide an update and/or information on how the necessary water supply for the building and operation of the plant will be secured.*
 - Respond to SoS by **22nd October**.
- Anglian Water
 - What options do they have?
 - Anglian asked what proportion needed for domestic purposes.
 - Anglian have to legally supply domestic water (potable 0.23l/s)
 - Anglian have to legally supply for firefighting – but would prefer if there is an alternative option.

- Anglian have no requirements in their charter or legally to supply non-domestic water (process water < 3l/s) but could be able to do so as a raw water provision by road going tanker. Concrete is being batched on site; but Anglian Water noted that the water is likely to come out of the AW network somewhere – either offsite or at the onsite batching plant.
 - Could be potable or raw water.
- Discussion about how.
- **WATER RESOURCES ASSESSMENT** in response to DCO/SoS letter
 - Pre-commencement condition to close out.
- Need to demonstrate to the EA that Solar 21 plus AW have minimised impact and reduced as far as possible. AW confident that both parties have done so.
- Recommendations:
 - Legal team to put forward a Water Resource Assessment based around the Keadby Power Station work that AW previously signed up to.
 - Prior to commencement: Water resources approach
 - Steps to reduce demand
 - Can say to EA we have reduced water demand as far as possible.
 - Comfort to SoS that solution can be progressed.
 - This gives Anglian confidence that they can then provide a solution.
 - Darl to lead from Anglian
 - Planning condition rather than protective provision
 - Anglian have done this on another project – Keadby Power Station.
 - SoS like to reference other cases
 - WBD to come up with LETTER/INFO
- Solar 21 to send address of Buildings to be demolished
 - Anglian can look at supply and net this off the ask.
- BH/FCE to re-send water breakdown to Anglian Water
- Does Construction Water have to be potable?
 - Welfare will be potable
 - Remaining is for concrete/construction
 - Batching concrete on site – doesn't need to be potable. Plus as it is batching on site and there will be a water holding tank, AW can deliver in bulk rather than as a constant flow.

- Anglian to look at if this could be shipped in via wharf
- Solar 21
 - Ran through processes for need for process water
 - Ideally need clean(ish) supply for Carbon Capture and boilers.
 - Condensate water to be reused.
 - Hydrogen processing: 9kg water for 1kg hydrogen.
 - CBMF
 - PRF
 - Re-using water on site
 - Full sustainable project.
 - Have avoided abstraction (existing pump station on site currently – from past occupier Micro?) and boreholes.
 - Shows reluctance to take further new water out of environment.
 - Solar 21 mentioned dis-used steelworks pipework
 - British Steel – non-potable supplies which are currently redundant.
 - Noted that the DHN covers a large area so potential opportunity to share with Anglian as well.
- BH
 - Started to run through options
 - Option 1 – Anglian Water to supply
 - Existing buildings within RLB served by Anglian Water. To be demolished as part of development.
 - Can NLGEP make use of the supply to existing connections.
 - Anglian response: Yes – if premises are acquired then can be taken into account.
- SoS response
 - Suggested joint response to SoS between Solar 21 and Anglian.
 - Water resources assessment requirements.
 - WBD to produce a draft for both parties to use.
 - Safe and efficient use of resources
 - Reduced demand
 - Further thought.

- Final letter to be issued by 22nd October, so draft beforehand.

Summary of actions:

- Solar 21 to send address of Buildings to be demolished. **06/10/2023**
- BH/FCE to re-send water breakdown to Anglian Water. **06/10/2023**
- AW to review the water supply to the buildings to be demolished and confirm current water supply quantity. **13/10/2023**
- AW and Applicant to have an **agreed position. 13/10/2023**
- WBD to produce a draft **WATER RESOURCES ASSESSMEN/CONDITION** for both parties to use as response to the SoS letter.**13/10/2023**

Changes to the DCO:

APPENDIX 2: RISBY WARREN SSSI MITIGATION AND ENHANCEMENT STRATEGY



NORTH LINCOLNSHIRE GREEN ENERGY PARK

Planning Act 2008

North Lincolnshire Green Energy Park

Risby Warren SSSI Mitigation and
Enhancement Strategy

Appendix 2

PINS reference: EN010116

October 2023

Revision number: 0



CONTENTS

1. INTRODUCTION	1
1.1 The Project	1
2. PURPOSE OF THIS REPORT	3
3. RISBY WARREN SSSI – QUALIFYING INTEREST, CURRENT STATUS AND MANAGEMENT	4
3.1 Qualifying Interest of the Risby Warren SSSI	4
3.2 Habitats on the Risby Warren SSSI and Current Condition	6
3.2.1 Habitats	6
3.2.2 Unit Condition Status	9
3.2.3 Status of Monitored Features	10
3.3 Criteria for Risby Warren SSSI to Achieve Favourable Condition Status	10
3.4 Ongoing Management at Risby Warren SSSI	11
4. SUMMARY OF THE PREDICTED EFFECTS OF THE PROJECT ON THE RISBY WARREN SSSI	12
5. APPROACH TO MITIGATE THE EFFECTS ON RISBY WARREN SSSI	13
5.1 Reduction of Background Levels of Ammonia	13
5.2 Habitat Management in Unit 5	15
5.3 Alternatives	17
5.4 Securing and Funding the Measures	17

APPENDIX A SUMMARY OF ENGAGEMENT

APPENDIX B SCAIL ASSESSMENT: OUTDOOR PIG FARM AT LOW SANTON FARM

APPENDIX C SIGNED LETTERS OF INTENT

List of Tables

Table 3.1	Risby Warren SSSI Designated Features	6
Table 3.2	Unit 5 - Natural England Field Unit NVC Survey (2017)	9
Table 3.3	Risby Warren SSSI Monitored Designated Features and Condition Assessment	10
Table 4.1	Predicted PCs for the Project and Percentages of Critical Levels (ROC)	12
Table 5.1	Comparison of SCAIL Output Against Project and In-Combination Emissions (% of CL).	15
Table 5.2	Outline Management Actions for Habitats Within the Risby Warren SSSI Unit 5	16

List of Figures

Figure 3.1	Location of Risby Warren SSSI and Project Order Limits	5
Figure 3.2	Unit 5 and Unit 7 within Risby Warren SSSI and Associated Habitats	8
Figure 5.1	An indicative location of the working pig farm adjacent to the Risby Warren SSSI	14

Acronyms and Abbreviations

Name	Description
AGI	Above Ground Installation
APIS	Air Pollution Information System
CCUS	Carbon Capture, Utilisation and Storage
CBMF	Concrete Block Manufacturing Facility
CL	Critical levels
DCO	Development Consent Order
DHPWN	District heating and private wire network
EV	Electric Vehicle
ERF	Energy Recovery Facility
NSIP	Nationally Significant Infrastructure Project
NE	Natural England
NLGEP	North Lincolnshire Green Energy Park
PRF	Plastic Recycling Facility
PC	Process Contribution
ROC	Reasonable Operating Case
RHTF	Residue Handling and Treatment Facility
SoS	Secretary of State
SSSI	Site of Special Scientific Interest
SoCG	Statement of Common Ground
SuDS	Sustainable Drainage Systems

1. INTRODUCTION

This Risby Warren Site of Special Scientific Interest (SSSI) Mitigation and Enhancement Strategy has been prepared on behalf of North Lincolnshire Green Energy Park Limited ('the Applicant'). It provides additional information following submission of the application (the 'Application') for a Development Consent Order (a 'DCO') for the North Lincolnshire Green Energy Park (NLGEP) ("the Project"), that has been submitted to the Secretary of State (the 'SoS') for Department for Energy Security & Net Zero (DESNZ), under Section 37 of 'The Planning Act 2008' (the '2008 Act') and subsequent info provided during the examination period.

The Proposed Development is an Energy Recovery Facility (ERF) capable of converting up to 760,000 tonnes of non-recyclable waste into 95 MW of electricity and a carbon capture, utilisation and storage (CCUS) facility which will treat a proportion of the excess gasses released from the ERF to remove and store carbon dioxide (CO₂) prior to emission into the atmosphere. Further details about the project can be found in Section 1.1.

As part of the air quality assessment for the DCO, acid deposition loads from the Project were predicted to result in significant effects on acid grasslands that form the qualifying interest of the Risby Warren SSSI (see Chapter 6.2.10 Ecology and Nature Conservation: Appendix A of Volume 6 of the Environmental Statement¹ (AS-026) and Section 0 below). The Statement of Common Ground ('SoCG') between the Applicant and Natural England (NE), outlined the Applicant's approach to deliver successful mitigation to address the effects of these potential exceedances, following discussion with NE (see document 8.2.12 Final Statement of Common Ground with Natural England² (REP10-010)).

1.1 The Project

The NLGEP, located at Flixborough, North Lincolnshire, comprises an ERF capable of converting up to 760,000 tonnes of residual non-recyclable waste into 95 MW of electricity and a CCUS facility which will treat a proportion of the excess gasses released from the ERF to remove and store CO₂ prior to emission into the atmosphere. The design of the ERF and CCUS will also enable future connection to the Zero Carbon Humber pipeline to be applied for, when this is consented and operational, to enable the possibility of full carbon capture in the future.

The Nationally Significant Infrastructure Project (NSIP) incorporates a switchyard, to ensure that the power created can be exported to the National Grid or to local businesses, and a water treatment facility, to take water from the mains supply or recycled process water to remove impurities and make it suitable for use in the boilers, the CCUS facility, concrete block manufacture, hydrogen production and the maintenance of the water levels in the wetland area.

The Project includes the following Associated Development to support the operation of the NSIP:

- a bottom ash and flue gas residue handling and treatment facility (RHTF);
- a concrete block manufacturing facility (CBMF);
- a plastic recycling facility (PRF);
- a hydrogen production and storage facility;
- an electric vehicle (EV) and hydrogen (H₂) refuelling station;
- battery storage;

¹ Revision 1, May 2023, PINS reference: EN010116 available at: [infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010116/EN010116-001324-6.2.10 - ES Chapter 10 - Ecology and Nature Conservation %5bRev 1%5d \(clean\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010116/EN010116-001324-6.2.10 - ES Chapter 10 - Ecology and Nature Conservation %5bRev 1%5d (clean).pdf)

² Revision 3, April 2023, PINS reference: EN010116 available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010116/EN010116-001351-8.2.12%20-%20FINAL%20SoCG%20with%20Natural%20England.pdf>

- a hydrogen and natural gas above ground installation (AGI);
- a new access road and parking;
- a gatehouse and visitor centre with elevated walkway;
- railway reinstatement works including; sidings at Dragonby, reinstatement and safety improvements to the 6km private railway spur, and the construction of a new railhead with sidings south of Flixborough Wharf;
- a northern and southern district heating and private wire network (DHPWN);
- habitat creation, landscaping and ecological mitigation, including green infrastructure and 65-acre wetland area;
- new public rights of way and cycle ways including footbridges;
- Sustainable Drainage Systems (SuDS) and flood defence; and
- utility constructions and diversions.

The Project will include development in connection with the above works such as security gates, fencing, boundary treatment, lighting, hard and soft landscaping, surface and foul water treatment and drainage systems, and CCTV.

The Project also includes temporary facilities required during the course of construction including site establishment and preparation works, temporary construction laydown areas, contractor facilities, materials and plant storage, generators, concrete batching facilities, vehicle and cycle parking facilities, offices, staff welfare facilities, security fencing and gates, external lighting, roadways and haul routes, wheel wash facilities, and signage.

2. PURPOSE OF THIS REPORT

The purpose of this report is to summarise the significant effects of Project air emissions predicted at the Risby Warren SSSI and set out the approach and more detailed actions that will be undertaken by the Applicant, in agreement with NE, to mitigate the effects predicted.

The document is structured as set out below.

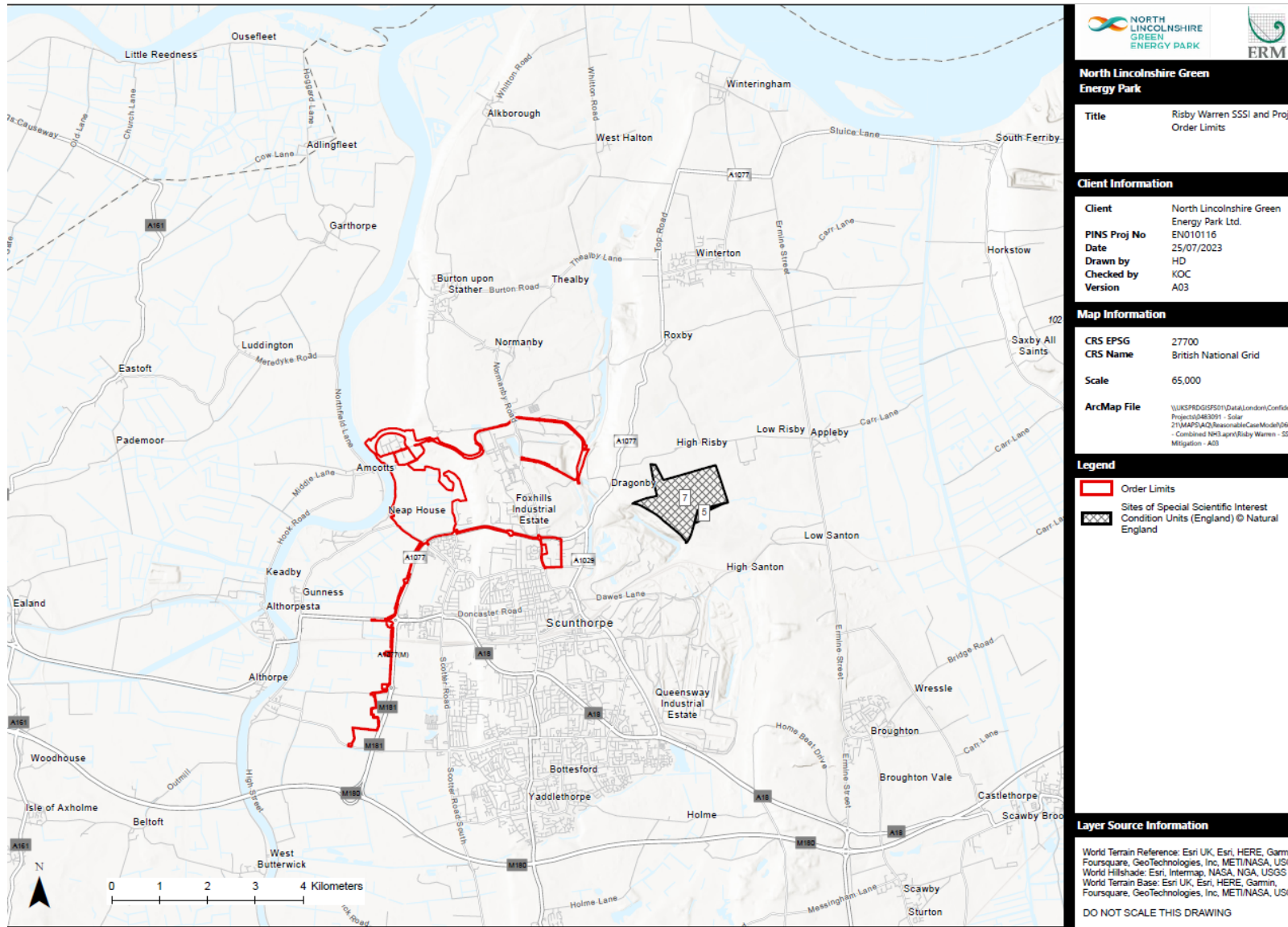
- Section 3 – summarises the qualifying interest of the Risby Warren SSSI, its current condition status and conservation management approach by NE.
- Section 4 – summarises the predicted effects of air emissions from the Project on the Risby Warren SSSI.
- Section 5 – describes the approach to mitigate the predicted effects from the Project, including alternatives and how the mitigation will be secured, delivered, and monitored.

3. RISBY WARREN SSSI – QUALIFYING INTEREST, CURRENT STATUS AND MANAGEMENT

3.1 Qualifying Interest of the Risby Warren SSSI

Risby Warren SSSI is a 157.11-hectare (ha) site located to the north-east of Scunthorpe at National Grid Reference SE 921135 (as shown in Figure 3.1). The site is largely designated for its extensive heathland, grassland, and dune formations with associated important plant communities.

Figure 3.1 Location of Risby Warren SSSI and Project Order Limits



North Lincolnshire Green Energy Park

Title Risby Warren SSSI and Project Order Limits

Client Information

Client North Lincolnshire Green Energy Park Ltd.
PINS Proj No EN010116
Date 25/07/2023
Drawn by HD
Checked by KOC
Version A03

Map Information

CRS EPSG 27700
CRS Name British National Grid
Scale 65,000
ArcMap File \\UKSPROD\GIS\55011\Drawn\Confidential\Projects\0483091 - Solar 21\MAPS\A03\ReasonableCase\Modsh\06645 - Combined NHD\April\Risby Warren - SSSI Mitigation - A03

Legend

- Order Limits
- Sites of Special Scientific Interest Condition Units (England) © Natural England

Layer Source Information

World Terrain Reference: Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS
 World Hillshade: Esri, Intermap, NASA, NGA, USGS
 World Terrain Base: Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS
 DO NOT SCALE THIS DRAWING

Risby Warren SSSI is described in the NE citation³ as “the largest surviving area of a once extensive heathland developed the coversand of the Lincolnshire Limestone escarpment”. The citation notes that the mosaic of plant communities within the site include “not only one of the finest inland dune systems in Britain, but also heathland, contrasting acidic and calcareous grassland, broadleaved scrub, and areas of coniferous plantation”.

The designated features of Risby Warren SSSI are shown in Table 3.1.

Table 3.1 Risby Warren SSSI Designated Features

Site Name, Site Code and Area	Qualifying Features of Interest (Species and Annex I Habitats) (*provided to the Applicant by Natural England ⁴)
Biological	Coversands heathland, which comprises plant communities of: fixed dune grassland, lichen-rich heath/acid grassland (characterised by the presence of key species of <i>Cladonia</i> lichens), lowland dry acid grassland, calcareous grassland.
Geological	Sand dune morphology: exceptional, nationally important example of surface morphology of wind-blown sand deposits and dunes deposited in Late Devensian period (approx. 10,000 – 13,000 years ago). Ancient dune deposits: Wind-blown sand deposits (cover sands), up to 10 m thick, deposited in the Late Devensian period.
Other known interest	Invertebrates, particularly those associated with bare ground (beetles, bees, wasps and ants), and a breeding population of grayling butterfly. Fungi, including the rare Nail Fungus <i>Poronia punctata</i> , and a diverse assemblage of waxcaps. Breeding woodlark. Historic features: one of the most important multi-period sites in North Lincolnshire, with finds dating from Palaeolithic to Roman times.

The overall conservation objective for the Risby Warren SSSI is to achieve a favourable condition⁵. The criteria required to achieve a favourable condition status are detailed in Section 0 below. NE also aim to buffer the SSSI from intensive land use in the surrounds of the site and extend the habitats of the SSSI on to adjacent land when opportunities arise, NE aim to protect the SSSI from potentially damaging activities, both in the site and external to it.

3.2 Habitats on the Risby Warren SSSI and Current Condition

3.2.1 Habitats

The main habitat within Risby Warren SSSI is lowland dry acid grassland, a habitat of principal importance in England⁶. The site also includes two other habitats of principal importance: areas of lowland calcareous grassland and deciduous woodland. The rare National Vegetation Classification (NVC) habitat U1a *Festuca ovina-Agrostis capillaris-Rumex acetosella* grassland, *Cornicularia aculeata-Cladonia arbuscula* sub-community has been recorded in the SSSI.

Figure 3.2 shows the division of units and habitat types identified at Risby Warren SSSI using the Priority Habitat Inventory data available on the DEFRA Magic Map⁷ and information provided by NE⁸.

³ Natural England, Designated Sites View, Citation. Available at: <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003381.pdf> (Accessed August 2023).

⁴ Correspondence received by the Applicant from NE on 12/06/2023.

⁵ Correspondence received by the Applicant from NE on 24/07/2023.

⁶ Listed on the Priority Habitats Inventory (England) as it is a Natural Environment and Rural Communities Act (2006) Section 41 habitat of principal importance. Available at: [Priority Habitats Inventory \(England\) - data.gov.uk](https://www.gov.uk/priority-habitats-inventory).

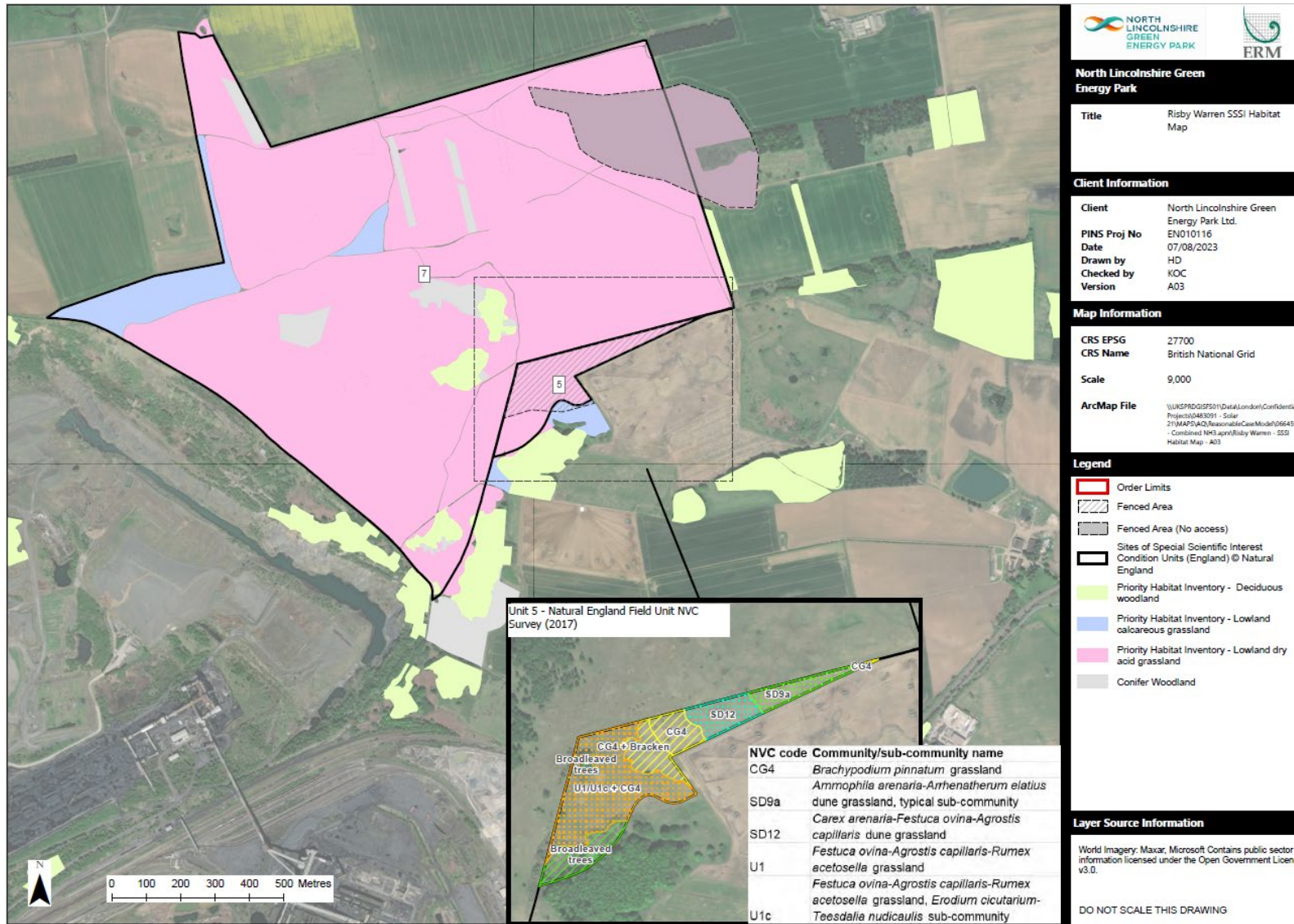
⁷ Natural England, Magic Map. Available at: [Magic Map Application \(defra.gov.uk\)](https://www.magicmap.gov.uk/) (Accessed August 2023).

⁸ Correspondence received by the Applicant from NE on 24/07/2023.

SSSI units are defined by NE as “*divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment*”⁹.”

⁹Natural England, Designated Sites View, Glossary. Available at: naturalengland.org.uk (Accessed August 2023).

Figure 3.2 Unit 5 and Unit 7 within Risby Warren SSSI and Associated Habitats



Both of these Units are noted in the SSSI Condition Summary to be in unfavourable condition. In correspondence received by the Applicant from NE¹⁰ the unfavourable status of the SSSI units was said to be largely due to:

- the loss of key lichen species and U1a habitat;
- too high cover of recent birch scrub;
- too high cover of tor grass; and
- insufficient botanical diversity of the calcareous grassland.

Correspondence from NE has highlighted that key pressures contributing to these effects are:

- poor air quality, especially ammonia and nitrogen deposition, that has resulted in the loss of lichen species and U1a habitat and may also be contributing to the growth of tor grass; and
- lack of land management of Unit 5.

3.2.2 Unit Condition Status

Unit 5

Unit 5 is located in a small area to the southeast of the SSSI (5.7 ha in total), that supports sand dunes, acid grassland and calcareous grassland. An NVC survey was conducted in 2017 by the NE Field Unit which recorded the communities listed in Table 3.2 and areas of broadleaved trees and bracken (shown Figure 3.2). No U1a habitat has been recorded in Unit 5.

Table 3.2 Unit 5 - Natural England Field Unit NVC Survey (2017)

NVC code	Community/sub-community name
CG4	<i>Brachypodium pinnatum</i> grassland
SD9a	<i>Ammophila arenaria-Arrhenatherum elatius</i> dune grassland, typical sub-community
SD12	<i>Carex arenaria-Festuca ovina-Agrostis capillaris</i> dune grassland
U1	<i>Festuca ovina-Agrostis capillaris-Rumex acetosella</i> grassland
U1c	<i>Festuca ovina-Agrostis capillaris-Rumex acetosella</i> grassland, <i>Erodium cicutarium-Teesdalia nudicaulis</i> sub-community

The last site check of Unit 5 was conducted in 2018, at which time the Unit was in an unfavourable condition due to too high a cover of dense bracken, tor grass and tall marram grass, with an insufficient frequency of positive acid grassland indicator species¹¹. The unit was noted to be under grazed, (the rabbit population was noted to have declined significantly in the area) and that the sward had become too tall for the sheep to graze.

Discussions with NE and the Applicant highlighted that the gate between the Units 7 and 5 has been permanently closed in recent years, which had prevented the sheep from grazing before the sward became too tall and continuing to prevent grazing by the ponies that would be beneficial to managing the habitats in Unit 5.

Bracken spraying had been undertaken in 2018 as part of the previous Higher Level Stewardship agreement, however that agreement ended in April 2021¹².

Contrary to the published condition status of unfavourable – recovering assessed in 2018, due to the lack of management of this unit; at the time of writing NE consider the unit to be in unfavourable declining condition¹².

¹⁰ Correspondence received by the Applicant from NE on 12/06/2023.

¹¹ Correspondence received by the Applicant from NE on 12/06/2023 and 24/08/2023.

¹² Correspondence received by the Applicant from NE on 12/06/2023.

Unit 7

Unit 7 forms the majority of the SSSI (151.37 ha, 96.35% of land within the SSSI¹³). The unit is dominated by lowland dry acid grassland with areas of lowland calcareous grassland, deciduous woodland and conifer woodland. Within Unit 7 is an area to the northeast of restricted access that is surrounded by a perimeter fence as the ground is unstable. At the time of writing, Unit 7 was in a Higher Tier Countryside Stewardship agreement. Management of the unit includes bracken control and the presence of a mix of Exmoor ponies and sheep to graze the land¹².

The condition of Unit 7 was last assessed in January 2023 with a previous condition assessment in December 2018¹⁴. Overall, the unit was assessed as in an unfavourable-declining condition due to circumstances outside the control of any land management activities. The monitored feature of lichen within the lowland dry acid grassland (U1a) was considered to be no longer present on the site and the loss of other key lichen species was noted. This was attributed to the effects of atmospheric pollution, for which there was no identified remedy as yet and could not be addressed through on-site management activities¹¹.

3.2.3 Status of Monitored Features

Within the site, there are six Monitored Features (features that are monitored and reported on in NE's SSSI condition assessments¹⁵). The majority of monitored features in the SSSI are considered to be in unfavourable condition, apart from the fixed dune grassland (inland) as shown in Table 3.3. The geomorphological features (EB - Quaternary of East Anglia and IS - Quaternary of East Anglia) are located in Unit 7 and were considered to be in unfavourable condition due to the increase in the cover of trees / scrub (birch) leading to root damage and trees obscuring the features. The lowland dry acid grassland U1a habitat originally recorded in Unit 7 was reported to be no longer present as discussed above.

Table 3.3 Risby Warren SSSI Monitored Designated Features and Condition Assessment

Feature name	Condition date	Condition status
EB - Quaternary of East Anglia	27/06/2022	Unfavourable - No change
Fixed dune grassland (inland)	27/06/2022	Favourable
IS - Quaternary of East Anglia	27/06/2022	Unfavourable - No change
Lowland calcareous grassland (CG3-5)	26/09/2019	Unfavourable - Recovering
Lowland dry acid grassland (U1a)	15/12/2019	Unfavourable - Declining
Lowland dry acid grassland (U1b,c,d,f)	27/06/2022	Unfavourable - Recovering

Natural England confirmed in April 2023 that the condition of SSSIs will be assessed in future not by Units, but instead based on the condition of special features across the whole site¹⁶. This will be known as the Whole Feature Approach. There are targets set out in the Government's Environmental Improvement Plan to update the condition assessment of each SSSI by the end of January 2028 and to achieve favourable condition for 50% of SSSI features by 2028¹⁷.

3.3 Criteria for Risby Warren SSSI to Achieve Favourable Condition Status

For the Risby Warren SSSI to achieve a favourable condition, a summary was provided by NE which provided an overview of what the site would need to meet the criteria listed below.

¹³ Natural England, Designated Sites View, SSSI Condition Summary. Available at: [Designated Sites View \(naturalengland.org.uk\)](https://designatedsites.naturalengland.org.uk/) (Accessed August 2023).

¹⁴ Natural England, Designated Sites View, Unit detail. Available at: [Unit detail \(naturalengland.org.uk\)](https://unitdetail.naturalengland.org.uk/) (Accessed August 2023).

¹⁵ Natural England, Designated Sites View, Site Condition Feature. Available at: [Site feature condition \(naturalengland.org.uk\)](https://sitefeaturecondition.naturalengland.org.uk/) (Accessed August 2023).

¹⁶ Natural England, Investing in Sites of Special Scientific Interest (SSSIs). Available at: <https://naturalengland.blog.gov.uk/2023/08/24/investing-in-sites-of-special-scientific-interest-sssisi/> (Accessed October 2023)

- An open landscape, with no new tree planting and only small amounts of new scrub.
- A species-rich sward, most of which is grazed short (<5 cm), with some areas of taller grasses and heather.
- Tor grass that is not spreading and with an open sward containing a high number of wildflowers.
- Frequent key *Cladonia* lichen species in the lichen heath.
- Some areas of bare sand.
- Bracken cover limited to <10%.
- No invasive non-native species (e.g. rhododendron).
- Few negative indicator species (e.g. creeping thistle, spear thistle, greater plantain, nettles).

The published Views About Management¹⁷ for Risby Warren SSSI summarise NE's views on how the site's special conservation interest can be conserved and enhanced through its Management Principles.

For areas of heath, the Management Principles recommend:

- maintaining the open nature of the heath;
- preventing dominance of bracken, gorse and or scrub and trees; and
- promoting a varied structure of uneven aged stands of native heathers and other characteristic plants.

This should be achieved through low intensity grazing of free roaming livestock and where appropriate, cutting or mowing to promote a mosaic of patches of heather of different ages.

In calcareous grassland, active management is required to prevent the habitat becoming dominated by stands of rank grasses (e.g. tor grass), which can lower the diversity of the site and lead to the site scrubbing over. Controlled grazing is recommended to promote an open sward, without resulting in excessive poaching.

Stock grazing is recommended also as the most suitable management approach for lowland acid grassland, to promote open sward and prevent it becoming dominated by tall, vigorous grasses or bracken and reverting to scrub. The Management Principles note that disturbance and trampling associated with stock grazing '*creates areas of open ground suitable for colonization by the lichens, ephemeral plants and invertebrates that are often characteristic of this type of grassland*'. Under grazing and abandonment are identified as a key cause of poor condition in lowland acid grassland habitats¹⁸.

A general note in the Management Principles highlights the sensitivity of all habitats within the SSSI to inorganic fertilisers and pesticides and that their use on site and in the surrounding area should be avoided.

3.4 Ongoing Management at Risby Warren SSSI

As discussed above, active management of the habitats within the SSSI is key in achieving favourable condition status. The previous Higher Level Stewardship agreement of Unit 5 ended in April 2021 and no active management is known to occur in the unit at the time of writing. Unit 7, at the time of writing, was in a Higher Tier Countryside Stewardship agreement, which covered management of the unit by grazing with Exmoor ponies and native breed sheep; bracken control, weed control and scrub control.

¹⁷ Natural England, Designated Sites View, Site Condition Feature. Available at: [Views About Management \(naturalengland.org.uk\)](https://www.naturalengland.org.uk) (Accessed August 2023)

¹⁸ Blakesley, D. and Buckley, P. (2016) Grassland Restoration and Management, Pelagic Publishing.

4. SUMMARY OF THE PREDICTED EFFECTS OF THE PROJECT ON THE RISBY WARREN SSSI

Air pollution from the surrounding industry is noted by NE to be a key threat / pressure to the Risby Warren SSSI. The existing background levels at the site are currently above the critical load and this has led to the loss of sensitive features from the designated site. This is considered to be a long-term impact and although pollution from heavy industry has declined, pollution from agriculture (ammonia and nitrogen) has increased¹⁹.

Risby Warren SSSI is located approximately 5 km east of the emission sources of the Project (as shown in Figure 3.1). To support the Environmental Statement, air quality modelling using a Reasonable Operating Case (ROC) was undertaken by the Applicant to assess the predicted Process Contribution (PC)²⁰ of emissions from the Project alone, and the Project when considered in combination with Keadby 2 and Keadby 3, at Risby Warren SSSI²¹.

Likely significant effects for emissions from the Project alone were screened out for annual and 24-hour nitrogen oxides (NO_x), sulphur dioxide (SO₂), ammonia (NH₃), deposited nitrogen and hydrogen fluoride (HF), as the process contributions (PC) from the Project were predicted to be under the relevant 1% and 10% thresholds of the critical levels (CL) against the ROC model²².

The screening process concluded a likely significant effect on the Risby Warren SSSI from the Project alone for acid deposition as the PC exceeded the 1% threshold. The detailed assessment confirmed that acid deposition emissions from the Project alone were predicted to have a significant residual effect on Risby Warren SSSI (as shown in Table 4.1).

The air quality modelling of Project emissions in-combination with the predicted emissions of Keadby 2 and Keadby 3, concluded potential likely significant effects on Risby Warren SSSI from ammonia, nitrogen deposition and acid deposition²³ (as shown in Table 4.1).

Table 4.1 Predicted PCs for the Project and Percentages of Critical Levels (ROC)

Project Alone or In-Combination Assessment	Emission Type (and qualifying interest feature where relevant)	PC as % of Critical Load	
		Min	Max
Project Alone	Acid deposition (acid grassland)	1.5%	0.23%
In-combination	Acid Deposition (acid grassland)	1.9%	N/A
In-combination	Nitrogen Deposition (acid grassland)	1.57%	0.93%
In-combination	Ammonia	1.73%	N/A

¹⁹ Correspondence received by the Applicant from NE on 12/06/2023.

²⁰ The PC is the environmental concentration at a receptor location of each substance emitted to air as a result of the project. A PC > 1% of CL (long) and / or >10% of CL (short) and PEC > 70% of CL cannot be considered as an insignificant contribution.

²¹ Appendix A of Chapter 10 on the Effects of Air Quality on Nationally and Locally Designated Sites (AS-026)

²² Appendix A of Chapter 10 on the Effects of Air Quality on Nationally and Locally Designated Sites (AS-026)

²³ Chapter 18 of the Environment Statement: Cumulative and Indirect Effects (REP9-017)

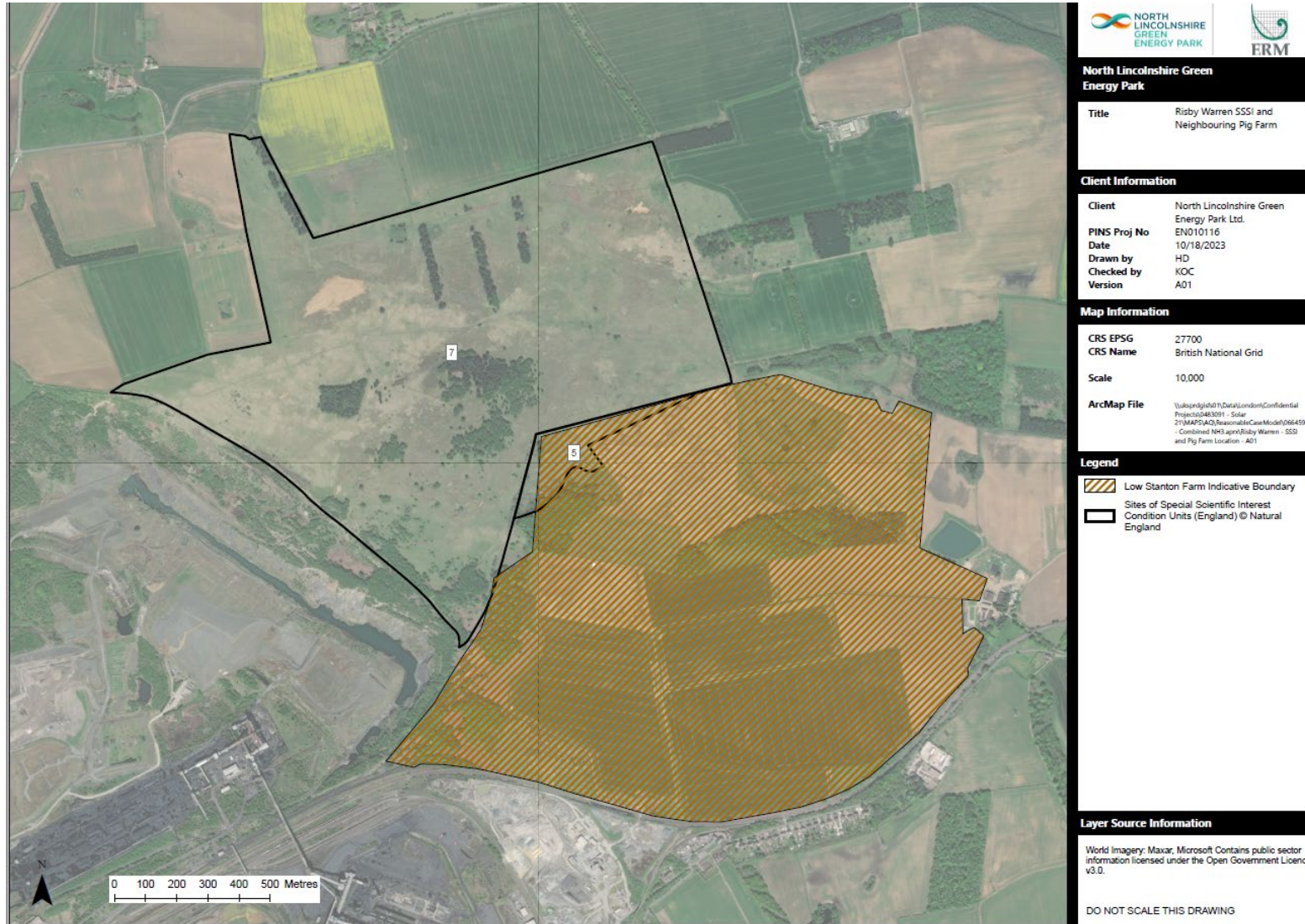
5. APPROACH TO MITIGATE THE EFFECTS ON RISBY WARREN SSSI

5.1 Reduction of Background Levels of Ammonia

The Applicant engaged in several discussions with NE through the Examination stages of the DCO process, not least to develop a SoCG. Part of these discussions centred around measures that could be implemented to mitigate the effects of air emissions at Risby Warren SSSI, or if that was not possible to compensate for the residual effects that would otherwise result.

As evident from Section 3, NE is implementing habitat management measures in the SSSI already and as a result further habitat mitigation measures were not an option. However, through discussions with landowners / tenants adjacent to the Risby Warren SSSI, the Applicant identified that the land adjacent to Unit 5 of the SSSI, is currently a working outdoor pig farm. The outdoor pig operation is known to rotate around Low Stanton Farm. (Figure 5.1).

Figure 5.1 An indicative location of the working pig farm adjacent to the Risby Warren SSSI



It was agreed with NE that removal of the unregulated outdoor pigs from this land adjacent to the SSSI would reduce the background levels of emissions and would constitute mitigation for the Project effects. The pigs would be removed from Low Santon Farm, so that the emissions of ammonia associated with them no longer impact the habitats in the SSSI.

To understand the extent of the mitigation that could result, it was agreed with NE that an assessment of the effects from the outdoor pigs would be undertaken using the Simple Calculation of Atmospheric Impact Limits (SCAIL) tool²⁴.

The full results of the SCAIL model are presented in Appendix B. Table 5.1 below presents the PC or PC/CL results for ammonia (NH₃), nutrient nitrogen and acid deposition from the SCAIL model of the pig farm.

The table also presents the project's predicted air emissions at the Risby Warren SSSI based on both a reasonable operating case (ROC) for the Project Alone and In Combination with Keadby 2 and Keadby 3 for illustration and intended to provide an understanding of the likely impacts from air quality and what can be expected to be achieved at the Environmental Permit (EP) stage.

The findings demonstrated that the outdoor pig farm is making a significant contribution to the background levels of emissions. The outdoor pig farm contributes 397% of ammonia compared to 0.73% for the Project alone and 1.73% for the Project in-combination with Keadby 2 and Keadby 3. The outdoor pig farm contributes 1238% of nitrogen deposition compared to 0.77% for the Project alone and 1.57% for the Project in-combination. It contributes 477% of acid deposition, compared with the predicted 1.5% for the Project alone and 1.9% for the Project in-combination (see Table 4.1 and Table 5.1). During discussions with NE, it was agreed that the removal of the outdoor pigs would provide an effect that not only mitigates for the effects of the Project, but in addition would result in a significant reduction to the background levels.

Such mitigation will more than mitigate for the predicated adverse effects from air emission of the Project on the SSSI, as confirmed in the SoCG (REP10-010). Reducing the background air emissions at the SSSI would contribute to the first steps to establish suitable conditions within the SSSI for the re-establishment of key U1a habitat and potential re-colonisation of lichens.

Table 5.1 Comparison of SCAIL Output Against Project and In-Combination Emissions (% of CL)

Pollutant	PC/CL NLGEP ROC (Project Alone)	PC/CL NLGEP ROC (In-Combination)	PC Pig Farm
NH ₃	0.73%	1.73%	397%
Nutrient nitrogen	0.77%	1.57%	1238%
Acid deposition	1.5%	1.9%	477%

5.2 Habitat Management in Unit 5

In addition to the above proposed mitigation, the Applicant has asked the Lincolnshire Wildlife Trust (LWT) to include the management of the land within the Risby Warren SSSI in Unit 5 as an extension to their management and maintenance of the biodiversity net gain (BNG) commitment within the Project red line boundary (RLB). Consistent management of this Unit has not been achieved for approximately 3-years since the previous management agreement terminated. Following discussions with the tenant farmer, the Applicant has received their support for this proposal.

Such an arrangement would aim to secure management of Unit 5 over at least the next 30 years in line with the objectives of the SSSI (see Section 0 and discussed below). As agreed with NE, successful implementation of the management actions will deliver additional enhancement of the SSSI over and above the mitigation for the effects of the air emission described in Section 5.1. This

²⁴ Simple Calculation of Atmospheric Impact Limits. Available at: www.scaill.ceh.ac.uk (Accessed June 2023).

will be in keeping with development best practice and be in line with national and local planning policies.

The specific management measures suggested by NE for Unit 5 included²⁵:

- Livestock grazing;
- Bracken control;
- Ragwort control; and
- Scrub control.

Ragwort control required due to the hazard to grazing livestock, however it is not necessary to seek to eradicate ragwort completely in Unit 5 as it does provide valuable habitat for invertebrates. The abundance of ragwort within Unit 5 should be monitored and controlled as and when required through hand pulling and spot treatment.

It is necessary to confirm the status of the abundance of scrub in Unit 5 to indicate if any control is necessary. Discussions with NE highlighted that scrub control was not required in Unit 5 at the time of writing.

The Applicant is committed to delivering the key management aims / actions in Unit 5 that are outlined in Table 5.2.

Table 5.2 Outline Management Actions for Habitats Within the Risby Warren SSSI Unit 5

Aim	Management Measures	Action
To maintain a short sward and limit the growth of scrub and tall grasses.	Livestock grazing	Identify areas to be grazed.
		Agree sourcing of livestock. – Livestock must be able to work with coarse grasses e.g., Herdwick sheep grazed the Unit under the previous Stewardship Agreement ²⁶ Exmoor ponies and sheep graze Unit 7 year-round. Due to the territorial nature of such species, consideration must be given to the interaction between the livestock in each Unit and the need for fencing to manage their dispersal and interaction.
		Agree stocking ratio.
		Agree the time period for grazing. Mirror Unit 7 e.g. grazing year round with additional grazing during autumn to graze down for winter.
		Establish appropriate boundaries (i.e., fencing) between the two Units.
		Monitoring of grassland habitats and impacts of livestock grazing.
To manage the bracken on site as it is known to quickly spread on the Risby Warren SSSI's sandy soil. Bracken spread can reduce the condition of lowland acid grassland and reduce grazing areas ²¹ .	Bracken control	Confirm area for bracken control.
		Create a bracken management plan (3-5 year).
		Apply the bracken management plan.

²⁵ Correspondence received by the Applicant from NE on 12/06/2023.

²⁶ Correspondence between the Applicant and NE on 24/08/2023.

5.3 Alternatives

Alternative options to provide mitigation for the predicted exceedances of emissions of ammonia, nitrogen deposition and acid deposition from the Project at Risby Warren SSSI were sought in discussion with NE. As documented as part of the Examination process, the Applicant had undertaken measures to reduce the source emissions as far as practicably possible and the emissions were predicted on this Reasonable Operating Case.

As the majority of the site (i.e., Unit 7), was already in a Higher Tier Countryside Stewardship agreement, it was confirmed with NE that no actions to support the management and potential habitat restoration within this unit were available to the Applicant. Hence, alternatives had to focus on opportunities outside the Risby Warren SSSI. It was at this stage that the Applicant was able to secure the potential option of removing the unregulated outdoor pigs from land managed by a neighbouring tenant.

5.4 Securing and Funding the Measures

The Applicant has secured a signed letter of intent from the current tenant of this land, part of the holding known as Low Santon Farm, and an email from the landowners agent with a view to reach a long-term contractual arrangement with them over the coming months, subject to approval of the Project by the Secretary of State.

The tenant farmer has agreed to the removal of the outdoor pig operation from the land and the Applicant has asked the Lincolnshire Wildlife trust to include the management of Unit 5 of the SSSI (outlined in Section 4) within their remit for the Project. The tenant intends to pass the tenancy of the land to one of his daughters thereby securing the long term (30+ year) management of the land. The management will result in the outdoor pigs being removed from the Low Santon Farm, so that the emissions of ammonia associated with them are removed from the background in this area and no longer affect the SSSI.

The land identified for this mitigation falls outside the order limits of the DCO and as such requires further discussion to agree the means to secure its management. Discussions with Natural England confirmed to the Applicant that a Section 106 agreement (under the Town and Country Planning Act 1990) would be preferred method for the Applicant to secure a formal plan (referred to in the letters of intent) for the mitigation summarised above. This has been discussed with North Lincolnshire Council.

APPENDIX A SUMMARY OF ENGAGEMENT

The table below contains a record of key correspondence between the Applicant and NE pertinent to securing the required mitigation at the Risby Warren SSSI following close of examination on the 14th May 2023. Engagement prior to the 14th May 2023 is detailed within the final SoCG.y.

Summary of Engagement

Date	Attendees	Engagement Subject
06/06/2023	Natural England, Solar 21, ERM	<p>The Project Team arranged a call with Natural England to discuss the way forward to implement the agreed mitigation to address the residual significant effects of air emissions on Risby Warren SSSI.</p> <p>Solar 21 outlined the proposed mitigation in terms of a management agreement with the tenant farmer of Low Santon Farm and the removal of the outdoor pig farm at this site.</p> <p>ERM outlined the SCAIL results demonstrating the great contribution the outdoor pig farm has to the air emissions in the area.</p> <p>Solar 21 outlined the potential mechanisms for legally securing the ongoing management of the land through a s106 or Conservation Covenant.</p> <p>Natural England agreed to provide suitable draft management objectives which link in with the current works at the SSSI to inform this report.</p>
12/06/2023	Natural England, ERM	Natural England provided ERM with background information for the Risby Warren SSSI.
20/06/2023	Natural England, ERM	Natural England provided ERM with information on the use of s106 and conservation covenants.
24/07/2023	Natural England, ERM	Natural England provided ERM with background information for the Risby Warren SSSI.
24/08/2023	Natural England, ERM	ERM and Natural England arranged a call to discuss the draft Risby Warren SSSI Mitigation and Enhancement Strategy report and background information for the Risby Warren SSSI.
24/08/2023	Natural England, ERM	Natural England provided ERM with background information for the Risby Warren SSSI.
18/10/2023	Natural England, ERM	ERM and Natural England arranged a call to discuss the draft Risby Warren SSSI Mitigation and Enhancement Strategy report.

APPENDIX B

SCAIL ASSESSMENT: OUTDOOR PIG FARM AT LOW SANTON FARM

SCAIL model for Pig Farm Impacts at Risby Warren

INPUT DATA

Parameter	Unit	Value
Project run model		Conservative met
Select country		England
Installation		1
Installation name		Pig Farm
Installation location	E m	492,970
	N m	413,330
Source		1
Source		Pig
New or Existing		Existing
Source name		Pig farm
Source location	E m	492,970
	N m	413,330
Source type		Housing
Type		Sows
Details		Solid floor - straw system
Livestock number		1650 As per email from C Hammond (15 May 2023 @12.20 to Chris Hazell-Marshall)
Housing Floor Area	m2	485633
Naturally ventilated		no [when running SCAIL with naturally ventilated
Building height	m2	1 optin selected, this produced a '0' value at receptors. Changed to Fan on side of building. This is likely due to Aermod not liking non-buoyant sources]

CALCULATED EMISSIONS

NH3	kg/annum	7541
-----	----------	------

CALCULATED IMPACTS

User specified site		1
Site name		Risby Warren
Receptor Type		Acid Grassland
Grid Reference (from SCAIL)	E m	492710
	N m	413430

	Units	CL	Backgroun PC	PC/CL	PEC	PEC/CL
NH3	ug/m3	1	2.96	11.9	1192%	14.88
	ug/m3	3	2.96	11.9	397%	14.88
Nitrogen deposition	kg N/ha/yr	5	23.96	61.9	1238%	85.86
Acid deposition	kEq H+/ha, 0.88 † 0.44 2.25 (N: 1.:		4.2	477%	6.45	733%

Site Name:	Risby Warren										
Site Code: ?	N/A										
Designation Status: ?	User defined										
Distance from Installation (m): ?	279										
Receptor Type:	Acid grassland										
Grid Reference:	492710,413430										
Met Site: ?	CHUR										
Run Mode: ?	Conservative										
PM ₁₀ Percentile: ?	Average										
Installation Information ?											
No.	Name	No. of sources	No. of new sources	PM ₁₀ (t/a)	NH ₃ (t/a)	Odour (kOu/a)	Conc NH ₃ (µg/m3)	Dep N (kg/ha/yr)	Dep Acid (kEq H+/ha/yr)	Conc PM ₁₀ (µg/m3)	Conc Odour (Ou/m3)
1	Pig farm	1	0	-	7.5	-	11.92	61.91	4.177	-	-
Total Depositions/Concentrations and Exceedances ?											
Concentrations/Depositions and Critical Loads/Levels			NH ₃ (µg/m3)	N Dep. (kg N/ha/yr)	Acid Dep. (kEq H+/ha/yr)	PM ₁₀ (µg/m3)	Odour (Ou/m3)				
Process Contribution (PC) at receptor edge			11.91961	61.90	4.200	-	-				
Background concentration at receptor edge ?			2.96	23.96	2.25 (N:1.86 S:0.39)	-	-				
Predicted Environmental Concentration/Deposition (PEC) ?			14.88	85.86	6.45	-	-				
Environmental Assessment Level or Critical Load / Level ?			Lower: 1 Upper: 3 ?	5.0 Acid grassland	maxN: 0.88 maxS: 0.44 minN: 0.44 Acid grassland	-	-				
			ALTERNATIVE CRITICAL LOAD INFO								
USE OWN THRESHOLDS?											
% of relevant standard PC ?			Lower: 1192% Upper: 397%	1238%	477%	-	-				
% of relevant standard PEC ?			Lower: 1488% Upper: 496%	1717%	733%	-	-				
EXCEEDANCE ?			Lower: 13.88 Upper: 11.88	80.86	5.57	-	-				

APPENDIX C SIGNED LETTERS OF INTENT



where the grass is always greener

C Hammond Esq
North Lincolnshire Green Energy Park Ltd
Office 71, The Colchester Centre
Hawkins Road
COLCHESTER
CO2 8JX

Dear Sirs

**RISBY WARREN SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
SUBJECT TO FORMAL AGREEMENT**

I am the tenant of land forming part of the holding known as Low Santon Farm, Appleby, near Scunthorpe. I hold the tenancy under the terms of the Agricultural Holdings Act 1986, having succeeded to the tenancy from my late father. I have two daughters, both in their 20s, and it is my expectation and wish that one of them will succeed to the tenancy in due course. It is therefore likely my family will remain as tenants on the farm, in the course of ordinary events, for something in the order of the next 60 years.

I understand that you are looking to secure a management agreement with me (and my successor daughter, if applicable), whereby I agree not to keep or allowed to be kept any outdoor pigs on the area of land shown coloured yellow on the plan attached, being part of the wider agricultural holding, for a period of not less than 30 years.

Furthermore, I understand you would wish me to manage the same area in accordance with guidance and direction of Natural England (and any successor bodies) under a Countryside Stewardship Scheme, to achieve environmental benefit, specifically for the benefit of the adjacent Risby Warren Site of Special Scientific Interest (SSSI) which incorporates part of the land I hold the tenancy for.

I am agreeable to the principle of such a management agreement, subject to not at any time contravening the terms of my agricultural tenancy agreement.

I trust that this letter provides confirmation of my intent to engage positively and actively in progressing a formal agreement to record the above.

Yours faithfully

A W Fraser

County Turf Limited
Registered Office: Low Santon Farm, Appleby, Scunthorpe, North Lincolnshire DN15 0DF
Telephone: 01724 855000
E-mail: info@countyturf.co.uk
www.countyturf.co.uk



Registered in England No. 3851796
Directors: A.W. Fraser, A. Fraser & C.D. Medley



CAUTION: This email originated from outside Solar 21. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good afternoon Colin.

I am forwarding the correspondence from the Landlord at Low Santon Farm, confirming their willingness to explore the detail behind our proposals.

I trust that this assists but please do come back to me if you require anything further.

Giles Johnston MRICS FAAV
07970 126300

From: Jonathan Wood <JCWood@savills.com>
Sent: Friday, October 20, 2023 2:50 pm
To: Giles Johnston <Giles.Johnston@ddmagriculture.co.uk>
Subject: Appleby Estate - Low Santon Farm

Dear Giles,

As you know, we act as managing agents for the Trustees of Lord St Oswald deceased Residuary Estates Trust – 2008 Appointment. Our clients are leasehold owners of the Appleby Estate, which includes Low Santon Farm. You are aware that the farm is occupied by a tenant, and I note that you have already been in touch with him.

As I understand it, your clients are looking to enter in to an agreement for some sort of environmental off-setting.

Our clients will be interested in principle in exploring this further subject to contract, subject to being provided with full details of what is being proposed, and subject to negotiation of commercial terms.

Our client will expect your clients to pay their professional costs in this matter – please can you confirm that point is agreed before this matter is taken any further.

I am away on holiday for a week from tonight, and any further discussion in this matter will have to wait until I get back.

Kind regards,

Jonathan

Jonathan Wood BSc (Hons) MRICS FAAV
Director
Rural

Savills, Olympic House, Doddington Road, Lincoln LN6 3SE



Tel : [+44 \(0\) 1522 508 954](tel:+441522508954)
Mobile : [+44 \(0\) 7870 999 552](tel:+4415227870999552)
Email : JCWood@savills.com
Website : www.savills.co.uk





NOTICE: This email is intended for the named recipient only. It may contain privileged and confidential information. If you are not the intended recipient, notify the sender immediately and destroy this email. You must not copy, distribute or take action in reliance upon it. Whilst all efforts are made to safeguard emails, the Savills Group cannot guarantee that attachments are virus free or compatible with your systems and does not accept liability in respect of viruses or computer problems experienced. The Savills Group reserves the right to monitor all email communications through its internal and external networks.

For information on how Savills processes your personal data please see our [privacy policy](#)

Savills plc. Registered in England No 2122174. Registered office: 33 Margaret Street, London, W1G 0JD.

Savills plc is a holding company, subsidiaries of which are authorised and regulated by the Financial Conduct Authority (FCA)

Savills (UK) Limited. A subsidiary of Savills plc. Registered in England No 2605138. Regulated by RICS. Registered office: 33 Margaret Street, London, W1G 0JD.

Savills Advisory Services Limited. A subsidiary of Savills plc. Registered in England No 06215875. Regulated by RICS. Registered office: 33 Margaret Street, London, W1G 0JD.

Savills Commercial Limited. A subsidiary of Savills plc. Registered in England No 2605125. Registered office: 33 Margaret Street, London, W1G 0JD.

Savills Channel Islands Limited. A subsidiary of Savills plc. Registered in Guernsey No. 29285. Registered office: Royal Terrace, Glatigny Esplanade, St Peter Port, Guernsey, GY1 2HN. Registered with the Guernsey Financial Services Commission. No. 86723.

Martel Maides Limited (trading as Savills). A subsidiary of Savills plc. Registered in Guernsey No. 18682. Registered office: Royal Terrace, Glatigny Esplanade, St Peter Port, Guernsey, GY1 2HN. Registered with the Guernsey Financial Services Commission. No. 57114.

We are registered with the Scottish Letting Agent Register, our registration number is LARN1902057.

Please note any advice contained or attached in this email is informal and given purely as guidance unless otherwise explicitly stated. Our views on price are not intended as a formal valuation and should not be relied upon as such. They are given in the course of our estate agency role. No liability is given to any third party and the figures suggested are in accordance with Professional Standards PS1 and PS2 of the RICS Valuation –Global Standards (incorporating the IVSC International Valuation Standards) effective from 31 January 2022 together, the 'Red Book'. Any advice attached is not a formal ("Red Book") valuation, and neither Savills nor the author can accept any responsibility to any third party who may seek to rely upon it, as a whole or any part as such. If formal advice is required this will be explicitly stated along with our understanding of limitations and purpose.

BEWARE OF CYBER-CRIME: Our banking details will not change during the course of a transaction. Should you receive a notification which advises a change in our bank account details, it may be fraudulent and you should notify Savills who will advise you accordingly.

**APPENDIX 3: AGREEMENT BETWEEN JOTUN PAINTS AND NORTH
LINCOLNSHIRE GREEN ENERGY PARK**



**NORTH
LINCOLNSHIRE
GREEN
ENERGY PARK**

Planning Act 2008

North Lincolnshire Green Energy Park

Agreement between Jotun
Paints and North Lincolnshire
Green Energy Park

Appendix 3

PINS reference: EN010116

October 2023

Revision number: 0



Jotun Paints (Europe) Limited
Stather Road
Flixborough
Scunthorpe
DN15 8RR

19 October 2023

WITHOUT PREJUDICE

Dear Sirs

The North Lincolnshire Green Energy Park Development Consent Order Application ("the Application")

Agreement between Jotun Paints (Europe) Limited ("Jotun Paints") and North Lincolnshire Green Energy Park Limited ("NLGEPL")

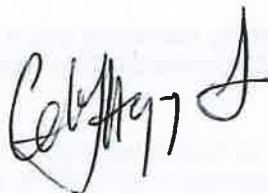
Subject to Jotun Paints signing and returning a copy of this letter to us to indicate its acceptance of the terms set out in this letter:

1. This letter shall cease to be "without prejudice" but shall be subject to the confidentiality and non-disclosure provisions set out below.
2. With effect from the date the Application is granted and a Development Consent Order ("Order") is made, NLGEPL agrees that it will at all times proceed with the carrying out of the authorised development in accordance with Schedule 1 of this letter.
3. Jotun Paints will write to the Secretary of State as soon as reasonably practicable and in any event within 2 working days of signing this letter or no later than 22 October 2022 (whichever is earlier) to:
 - a. reply to the Secretary of State's consultation letter dated 22 September 2023 confirming it is satisfied that it has reached agreement with NLGEPL to ensure that NLGEPL will, subject to the provisions of Schedule 1, maintain continued safe access and egress to Jotun Paints' site at Stather Road, Flixborough ("the Site") while carrying out the authorised development
4. Subject to the following paragraphs of this letter, NLGEPL and Jotun Paints agree to keep confidential and not disclose to any third party this letter, or information relating to the negotiations leading to this letter (the "Information").
5. Either party may disclose the details of this letter, or its terms:

- a. pursuant to an Order of the Court or Tribunal, or by compulsion of law or the rules of any competent regulator;
 - b. to any of their auditors, investors, professional legal advisers or insurers;
 - c. to any of their existing or proposed contractors;
 - d. with the prior written consent of the other party; or
 - e. for the purpose of examination and certification of its accounts or for any examination.
6. In the event that NLGEPL or Jotun Paints considers that it is required by law or by the rules of any competent regulator to disclose the Information, they will provide the other party with such prompt written notice of such requirement as is reasonably practicable.
7. If a waiver is not obtained from the other party, and if the first party is nonetheless, in the opinion of its legal advisers required to do so by law or the rules of any competent regulator, such party may disclose that portion only of the terms of this letter which that party is advised by its legal advisers is required to be disclosed and will use its reasonable endeavours to obtain assurance that confidential treatment will be accorded to any information disclosed.
8. If NLGEPL or Jotun Paints discloses the Information to a person within paragraph 5(b), (c) or (d) above, they will use their reasonable endeavours to obtain assurances that such Information will be treated by that person as confidential.

Please sign and return a copy of this letter to confirm Jotun Paint's agreement to the above provisions.

Yours faithfully



.....
Authorised Signatory of NLGELP

Schedule 1

Commitments to Jotun Paints Limited by NLGEPL

In the carrying out of the authorised development pursuant to the Order, NLGEPL agrees:

1. NLGEPL will ensure continued safe access to and egress from the Site at all the existing access points throughout the carrying out of the authorised development, subject to paragraph 2 below;
2. NLGEPL may from time to time be required to temporarily close part of, or all of, the roads within the vicinity of the Site in order to carry out the authorised development, but before doing so, NLGEPL shall:
 - a. give a 14-day notice of any closures required to Jotun Paints and take account of Jotun Paints' representations in relation to such closures;
 - b. ensure that Jotun Paints has, at all times, safe access and egress to and from its Site to the highway at all the existing access points except as expressly referred to in paragraphs 2(d), 2(e) and 2(f) below;
 - c. ensure that at all times during the operational hours of the Site ("Operational Hours") being 06.00 to 22.00 Monday to Friday, Jotun Paints has safe unobstructed access and egress for vehicles and pedestrians to and from the Site through the main gate of its Site on Stather Road ("Gate 1") to and from the highway in Stather Road
 - d. ensure that any out of hours trenching work which may partially obstruct or block access to and egress from Gate 1 is carried out outside Operational Hours and that a satisfactory contingency plan is in place during such works to provide for emergency access to the Site through Gate 1 if required;
 - e. ensure that access through at least one of Gate 1 and the gate on the eastern boundary of the Site ("Gate 2") to the highway is maintained at all times;
 - f. comply with any conditions imposed by the highway authority in providing their consent pursuant to Article 15(3) or any other relevant Article of the Order.
3. NLGEPL will have regard to the requirements of Jotun Paints' COMAH Plan, in relation to its plans for the carrying out of the authorised development in the vicinity of the Site, provided that, Jotun Paints first provides relevant details from its COMAH Plan within 10 working days of a request from NLGEPL for the information.

Jotun Paints agrees to comply with the terms of the above letter.



For and on behalf of Jotun Paints (Europe) Limited

Rob GREEN

Date: 20-10-23