Planning Inspectorate

REPORT on the IMPLICATIONS for EUROPEAN SITES

Proposed Cory Decarbonisation Project

An Examining Authority report prepared with the support of the Environmental Services Team

Planning Inspectorate Reference: EN010128

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TABLE OF CONTENTS

1 INTRODUCTION

1.1 Background

1.1.1 Cory Environmental Holdings Limited (CEHL) (the applicant) has applied for a development consent order (DCO) under section 37 of the Planning Act 2008 (PA2008) for the proposed Cory Decarbonisation Project ('the proposed development'). On behalf of the Secretary of State for Levelling Up, Housing and Communities, an Examining Authority (ExA) has been appointed to conduct an examination of the application. The ExA will report its findings and conclusions and make a recommendation to the relevant Secretary of State (SoS) as to the decision to be made on the application.

1.1.2 For applications submitted under the PA2008 regime, the relevant SoS is the competent authority for the purposes of the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'). The findings and conclusions on nature conservation issues reported by the ExA will assist the SoS in performing their duties under the Habitats Regulations.

1.1.3 This Report on the Implications for European Sites (RIES) documents and signposts the information in relation to potential effects on European sites that was provided within the DCO application and submitted during the examination by the applicant and Interested Parties (IPs), up to and including Deadline (D) 5 of the examination (25 March 2025). It is not a standalone document and should be read in conjunction with the examination documents referred to. Where document references are presented in square brackets [ ] in the text of this report, that reference can be found in the Examination Library published on the 'Find a National Infrastructure Project' website by following the link below:

https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010128/EN010128-000246-Cory%20Decarb%20Examination%20Library.pdf

1.1.4 For the purpose of this RIES, in line with the Habitats Regulations and relevant Government policy, the term 'European sites' includes Special Areas of Conservation (SAC), candidate SACs, proposed SACs, Special Protection Areas (SPA), potential SPAs, listed and proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on any of these sites. The 'UK National Site Network' (NSN) refers to SACs and SPAs belonging to the United Kingdom already designated under the Directives and any further sites designated under the Habitats Regulations.

1.1.5 This RIES is issued to ensure that IPs including the Appropriate Nature Conservation Body (ANCB), Natural England (NE), is consulted formally on Habitats Regulations matters. This process may be relied on by the SoS for the purposes of Regulation 63(3) of the Habitats Regulations.

1.1.6 It also aims to identify and close any gaps in the ExA's understanding of IPs' positions on Habitats Regulations matters, in relation to all European sites and qualifying features as far as possible, in order to support a robust and thorough recommendation to the SoS.

1.1.7 Following consultation, the responses will be considered by the ExA in making their recommendation to the SoS and made available to the SoS along with this report. The RIES will not be revised following consultation.

1.1.8 Comments on the RIES are timetabled for D6 (29 April 2025).

1.2 Documents used to inform this RIES

1.2.1 The applicant's Habitats Regulations Assessment (HRA) Report comprised the following document:

- Environmental Statement (ES): 6.3 Appendix 7-3: Information to inform a Habitat Regulations Assessment [APP-090] ('the HRA Report')

1.2.2 The HRA Report is supported and informed by ES Chapter 5: Air Quality [APP-054] and its associated appendices (some of which have been subject to updates during pre-examination/ examination, as detailed below in this RIES).

1.2.3 The HRA Report concluded that adverse effects on the integrity (AEoI) of all European sites could be excluded, alone and in-combination.

1.2.4 In addition to the HRA Report, this RIES refers to other examination documents (as relevant) including those from the applicant, representations from IPs and Statements of Common Ground (SoCG). All documents can be found in the Examination Library.

1.3 Change Requests

1.3.1 To date, the applicant has made the following change requests:

- Change request 1 dated 25 October 2024 [AS-047 to AS-061], accepted by the ExA on 18 November 2024 [PD-006]. The changes broadly comprised:
  - Revised proposed jetty design to facilitate a maximum vessel size of approximately 20,000m^3 (rather than the maximum of 15,000m^3 previously considered) and associated dredging.
- Change request 2 dated 17 January 2025 [AS-066 to AS-076], accepted by the ExA on 28 January 2025 [PD-012]. The changes broadly comprised:
  - Changes to proposed Carbon Capture Facility and Absorber Column(s) and increase to maximum height of the 'Regenerator'. A reduction in the Order limits within the River Thames and to exclude the Great Breach Pumping Station.

1.3.2 In relation to change request 1, the applicant provided a report [AS-048] which stated that the increase in vessel capacity, and subsequent increase in size, would not require additional land take or significantly vary the operational emissions. As a result, no changes were predicted to the assessment of effects in the HRA Report [APP-090]. The report [AS-048] concluded that the findings of and assessment presented within the HRA Report [APP-090] remained as reported.

1.3.3 In relation to change request 2, the applicant provided a report [AS-067] which stated that the changes would not affect the emissions from the proposed development as assessed in the HRA Report [APP-090]. The report [AS-067] concluded that the findings of and assessment presented within the HRA Report [APP-090] remained as reported.

1.3.4 No relevant HRA matters arose from these change requests.

1.4 HRA matters considered during the examination

1.4.1 The examination to date has considered the following matters:

- whether mitigation measures relevant to air quality during operation had been relied upon in the HRA Report in reaching the conclusion of no AEoI
- the overestimation of annual nitrogen and acid deposition and associated updates to the ES documents which support the HRA Report
- provision of additional air quality modelling for ammonia and reduced Emission Limit Value (ELV) for ammonia
- in-combination effects

2 LIKELY SIGNIFICANT EFFECTS

2.1 European sites considered

Introduction

2.1.1 The proposed development is not connected with or necessary to the management for nature conservation of any European site.

2.1.2 The HRA Report [APP-090] identified European sites within a 15km study area surrounding the application site boundary, a distance the applicant considered appropriate to encompass possible effect pathways from the proposed development to European sites.

2.1.3 The study area was informed by the Environment Agency guidance 'Air emissions risk assessment for your environmental permit' in relation to emissions of power generation facilities of 50MW capacity or more, which require a 15km study area to account for effects of the emissions plume. This has been taken into account particularly given that the application of the Carbon Capture and Storage Project is likely to impact the characteristics of the plume arising from the Riverside Campus as compared to the plumes currently arising from Riverside 1 and predicted to arise from Riverside 2.

Sites within the UK NSN

2.1.4 The HRA Report [APP-090] identified one European site within the UK NSN, and all of its qualifying features, for inclusion within the assessment.

Table 2.1: European site and qualifying features that were considered in the applicant's assessment of LSE

European site	Qualifying feature
Epping Forest SAC	Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrub layer
	Stag beetle
	Northern Atlantic wet heaths with *Erica tetralix*
	European dry heaths

2.1.5 Epping Forest SAC is located approximately 11.8km to the north of the proposed development, as depicted on Figure 3 of the HRA Report [APP-090].

2.1.6 No additional UK European sites have been identified by IPs for inclusion within the assessment in the examination to date.

2.1.7 NE has agreed [RR-150] that the Epping Forest SAC is the only European site that could be affected by the proposed development.

2.2 Potential impact pathways

2.2.1 Annex A, Section 5 of the HRA Report [APP-090] identified potential impacts from the proposed development considered to have the potential to result in LSE. The only impact considered by the applicant to have the potential to result in LSE was:

- changes in air quality, resulting from changes to the emissions arising from the Riverside Campus as a result of the proposed development (operation phase)

2.2.2 Annex A, Section 5 of the HRA Report [APP-090] considered whether other impact pathways could potentially result in significant effects (changes in air quality from road traffic or vessel movements; habitat loss and fragmentation; noise and vibration; dust; surface water run-off; and lighting). It explained that these impacts would be localised and/ or would not be transmitted over the 11.8km distance between the proposed development and the Epping Forest SAC. It further states that the large area of urban Greater London in the intervening landscape and lack of hydrological or other connections between the proposed development and the SAC would act as a barrier to effects. These impacts were scoped out of the assessment on the basis that there was no pathway for LSE.

2.2.3 No additional impact pathways have been identified by IPs for inclusion within the assessment in the examination to date.

2.2.4 NE has agreed with the scope of the screening assessment [RR-150].

2.3 In-combination effects

2.3.1 The applicant's screening assessment concluded LSE on Epping Forest SAC from the project alone and did not consider in-combination effects.

2.3.2 Potential in-combination effects were considered in the applicant's assessment of AEoI, as detailed in Section 3 of this RIES.

2.4 The applicant's assessment

2.4.1 The applicant's screening assessment is presented in Annex A of the HRA Report [APP-090].

2.4.2 The applicant concluded that the proposed development would be likely to give rise to significant effects, either alone or in-combination with other projects or plans, on all qualifying features of the Epping Forest SAC as a result of changes in air quality [APP-090].

2.4.3 No matters have been raised in the examination to date in relation to the applicant's screening assessment. NE has agreed with the conclusions of the screening assessment [RR-150; REP5-023].

3 ADVERSE EFFECTS ON INTEGRITY

3.1 Conservation Objectives

3.1.1 The Conservation Objectives for Epping Forest SAC are listed in Annex A, Section 4.3 of the HRA Report [APP-090].

3.1.2 Supplementary Advice on the Conservation Objectives is set out in Annex A, Section 4.4 of the HRA Report [APP-090].

3.1.3 In response to ExQ1 [Q1.3.2.2, PD-007], the applicant provided confirmation of the condition of the 37 units making up the SAC. The applicant concluded that most units of the Epping Forest SAC are in an unfavourable condition (78%), but that the majority are recovering [REP3-029].

3.2 The applicant's assessment

3.2.1 The Epping Forest SAC and its qualifying features were further assessed by the applicant to determine if they could be subject to AEoI from the proposed development, either alone or in-combination.

3.2.2 The applicant's assessment of AEoI was presented in Sections 3 and 4 of the HRA Report [APP-090].

3.2.3 The applicant's integrity matrix can be found in Table 3-1 [APP-090].

Mitigation measures

3.2.4 The HRA Report [APP-090] at paragraph 2.6.1 indicated that mitigation measures had been taken into account in the applicant's assessment of effects on integrity. However, Sections 3 and 4 of the HRA Report did not describe any mitigation measures or indicate that the conclusions of the assessment were reliant upon mitigation measures. This was queried in ExQ1 [PD-007], as described below.

In-combination effects

3.2.5 Section 3 of the HRA Report [APP-090] detailed the applicant's approach to considering potential in-combination effects. It stated that modelling effects of the emissions of other plans or projects is neither practicable nor necessary given the extent of the study area (~76,600ha) and the distance between the proposed development and Epping Forest SAC. The HRA Report described the modelled impact of the proposed development at this distance as "…*imperceptible (<1% of any relevant critical load or critical level)".* It stated that, taking into account the conservatism inherent in the dispersion modelling, these impacts can robustly be considered to be so small that the proposed development could not reasonably be considered likely to act in-combination with other plans or projects to have an AEoI of Epping Forest SAC [APP-090]. This was considered during the examination, as described below.

Applicant's conclusions in relation to site integrity

3.2.6 The applicant concluded that the proposed development would not adversely affect the integrity of Epping Forest SAC and its qualifying features, either alone or in combination with other projects or plans [APP-090].

3.3 Pre-examination and examination matters

Mitigation

3.3.1 In ExQ1, the ExA [Q1.3.2.1, PD-007] asked the applicant to confirm which (if any) mitigation measures relevant to air quality during operation had been relied upon in the HRA Report in reaching the conclusion of no AEoI of the Epping Forest SAC.

3.3.2 In response, the applicant [REP3-029] confirmed that the conclusion of no AEoI of Epping Forest SAC had been reached without the need to apply mitigation (ie that the percentage changes in concentration of airborne ammonia, nitrogen oxides, sulphur dioxides, and deposition of nitrogen and acid are all <1.0% (rounded to 1 decimal place) and considered negligible regardless of their measured concentration).

3.3.3 The applicant signposted to embedded and additional mitigation measures which it stated would further improve the situation with regards air quality (including a reduction in the ammonia ELV, as described further below), but confirmed that the conclusion of no AEoI remained the same regardless [REP3-029].

Overestimation of amine deposition

3.3.4 During pre-examination, the applicant provided an Errata Schedule [AS-042] which identified an erroneous overestimation of amine deposition for the Epping Forest SAC and Site of Special Scientific Interest (SSSI). The applicant stated that this error had resulted in an overestimation of annual nitrogen and acid deposition [AS-042].

3.3.5 As a result, the applicant provided updated tables relevant to annual nitrogen and acid deposition for ES Chapter 5: Air Quality; ES Appendix 5-2: Operational Phase Assessment; and ES Appendix 5-3: Detailed Model Pollutant Results in Appendix B of [AS-044] as part of its response to Relevant Representations [AS-043]. The applicant confirmed in [AS-044] that the updates did not change any conclusions presented within ES Chapter 5: Air Quality [APP-054].

3.3.6 In response to ExQ1 [Q1.1.0.2 and Q1.3.2.3, PD-007], the applicant confirmed [REP3-029] that the updated tables [Appendix B, AS-044] did not change the conclusions of the HRA Report [APP-090].

Ammonia Emission Limit Value

3.3.7 At D2, the applicant provided an Ammonia Emissions Limits Technical Note [Appendix B, REP2-019] which provided additional air quality modelling for ammonia, undertaken by reducing the ELV for ammonia. The revised impacts with the reduced ELV for ammonia (10mg/Nm^3) were presented in Tables A2 and A4 of [Appendix B, REP2-019]. The applicant described the revised impacts as *"markedly lower"* than presented within ES Chapter 5: Air Quality [APP-054] and stated that these would reduce to negligible or beneficial over all sites designated at national and international levels including Epping Forest SAC [Appendix B, REP2-019].

3.3.8 At D4, the applicant confirmed that the reduced ELV for ammonia was an embedded mitigation measure relating to SSSI impacts and was not introduced for the purposes of reducing effects to the Epping Forest SAC [REP4-033].

3.3.9 NE [REP5-045] has accepted that defined ELVs can be considered as embedded mitigation (operating parameters). NE stated in [REP5-045] that ELVs must be incorporated in the environmental permit/ DCO

3.3.10 The reduced ELV for ammonia is incorporated at 1.12 of the Mitigation Schedule [REP1-010] and secured via Requirement 14 of the draft DCO (dDCO) [REP5-005]. The Mitigation Schedule is a Certified Document under Schedule 13 of the dDCO [REP5-005].

In-combination effects

3.3.11 The initial versions of the SoCG between the applicant and NE [AS-038; PDA-002] recorded that NE was considering the applicant's position on in-combination effects as set out above. At D1, NE stated that in-combination air quality impacts to Epping Forest SAC had been sufficiently addressed [REP1-038].

3.3.12 At D3, an updated SoCG between the applicant and NE was submitted, which recorded agreement from NE that there would be no AEoI on the Epping Forest SAC, alone or in combination with other plans or projects [page 12, REP3-017].

3.3.13 However also at D3, in response to ExQ1 [Q1.7.0.1, PD-007], NE stated that discussions with the applicant had progressed and its understanding of the methodology had advanced, and that it was currently reviewing its position on the in-combination assessment [REP3-040].

3.3.14 At D4, the applicant explained [REP4-033] that it received a written response from NE on 24 January 2025 (later submitted to the examination by NE in [REP5-046]), regarding air quality and in-combination matters and setting out a series of questions for the applicant to address. The applicant provided its response to NE in Appendix A of [REP4-033], including Section 2.2 (in-combination assessment) which it stated was in response to comments from NE that *"…a reconsideration of the in-combination assessment should be made".*

3.3.15 Also at D4, the applicant provided tables relevant to nitrogen deposition, ammonia and nitrogen dioxide at Epping Forest SAC/ SSSI and Inner Thames Marshes SSSI (whilst SSSIs are not European sites, this is noted here for completeness) [Tables 4, 5 and 6, REP4-033]. Values shown in bold in Tables 4, 5 and 6 of [REP4-033] had previously been presented in Tables A2 and A4 of the Ammonia Emissions Limits Technical Note [Appendix B, REP2-019] and Table 23 of ES Appendix 5-3 [APP-079]. Tables 4, 5 and 6 included a breakdown of the contribution of Riverside 1 and Riverside 2 when emitting via the existing stacks or via the stack(s) of the proposed Carbon Capture Facility.

3.3.16 The applicant stated that the beneficial impacts of the proposed development over Epping Forest SAC/ SSSI and Inner Thames Marshes SSSI could clearly be seen for nitrogen deposition and ammonia concentrations, with both being driven by the impact of the embedded mitigation of reducing the consented emissions of ammonia from the Riverside Campus [REP4-033]. The applicant also highlighted the decreasing Air Pollution Information System (APIS) trend in background nitrogen deposition over Epping Forest since 2003 [Figure 2, REP4-033].

3.3.17 The applicant [REP4-033] stated that the impact of the proposed development on nitrogen deposition at the Epping Forest SAC is beneficial and a maximum of -0.02% of the critical load. The applicant explained that even before application of the embedded mitigation for ammonia emissions, it had previously agreed with NE that with a maximum impact of 0.35% of the critical load over Epping Forest SAC, there was no requirement for an in-combination assessment of impacts. The applicant stated that over Epping Forest SAC, the comparison of the Riverside Campus Process Contribution (PC) with the proposed development to the Current Baseline PC (Riverside 1 alone) is a maximum impact of +0.33% of the critical load and 0.09% of the critical level for ammonia, with these impacts being within the 0.35% impact

presented previously agreed as not requiring an in-combination assessment [REP4-033].

3.3.18 At D4, the applicant's position therefore remained that there was no scientific rationale for an in-combination assessment and that to undertake such an assessment at significant distance from the proposed development remained impractical and unproportionate [REP4-033].

3.3.19 An updated SoCG between the applicant and NE was submitted at D4, which recorded the in-combination assessment for Epping Forest SAC as a matter still under discussion [page 16, REP4-019].

3.3.20 At D5, in response to ExQ2 [Q2.1.2, PD-014], NE confirmed [REP5-045] that following further discussions and the additional information provided by the applicant, it was now in agreement with the applicant's conclusion that an AEoI, either alone or in-combination with other projects or plans, can be ruled out for Epping Forest SAC.

3.3.21 NE stated [REP5-045] that although its standard advice dictates that an in-combination assessment should be carried out to assess whether in-combination an increase of >1% is experienced alongside impacts from other plans and projects, it recognised the distance of the proposed development from the Epping Forest SAC makes modelling difficult. NE considered that the proposed development would have a low risk of undermining the integrity of the site in-combination with other projects (including those much closer to the SAC, such as adjacent vehicle emissions). NE acknowledged that the key issue at the Epping Forest SAC is the impact from vehicle emissions on roads close to the site [REP5-045]. Overall, NE considered the risk at Epping Forest SAC from the proposed development to be low and it recognised that any mitigation would likely be more effectively achieved by reductions in traffic emissions close to Epping Forest rather than point sources several km distant. NE therefore advised that no further assessment of the impact at Epping Forest SAC is required for the proposed development [REP5-045].

3.3.22 The applicant also provided a response to ExQ2.1.2 [REP5-033] and an updated SoCG with NE [REP5-023] to confirm the agreement between the parties that an in-combination assessment for Epping Forest SAC is not required.

Conclusions in relation to site integrity

3.3.23 NE has agreed with the applicant's conclusion of no AEoI to Epping Forest SAC, either alone or in-combination with other projects or plans [REP5-045].

3.3.24 The ExA understands that all matters relating to HRA are resolved. Matters remain under discussion between the applicant and NE in relation to the EIA assessment of air quality impacts on Inner Thames Marshes SSSI, including how emissions predicted to arise from Riverside 2 have been assessed.