

From: [Megaw, Alice](#)
To: [DraxBECCS](#)
Subject: EN010120 Drax BECCS Natural England relevant representations
Date: 23 September 2022 11:24:55
Attachments: [image001.png](#)
[402545 Drax-BECCS-EN010120-Natural England Relevant Reps Version 1.2.pdf](#)

Good morning,

Please can you add the attached document to Natural England's representations (ref 20032197)?

This version will supersede our previous representations (version 1.1). It is a revised version of our previous response, including additional advice on air quality aspects of the proposals.

Please let me know if you have any questions.

Kind regards,

Alice Megaw

Sustainable Development Lead Adviser

Yorkshire and Northern Lincolnshire Area Team

Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX

www.gov.uk/natural-england



Date: 23 September 2022
Our ref: 402545
Your ref: EN010120



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BY EMAIL ONLY

Dear Sir/Madam,

NSIP Reference Name / Code: EN010120

Title: Natural England's comments in respect of Drax Bioenergy with Carbon Capture and Storage Project, promoted by Drax Power Limited

Examining authority's submission deadline 05 September 2022

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

For any further advice on this consultation please contact the case officer Alice Megaw at [REDACTED] and copy to [REDACTED]

Yours faithfully

Alice Megaw

Yorkshire and Northern Lincolnshire Area Team

Natural England's Relevant Representations Version 1.2.

PART I: Summary and Conclusions of Natural England's advice

PART II: Natural England's detailed advice (starting on page 11)

PART III: Natural England's detailed comments on the draft Development Consent Order (DCO) (starting on page 37)

Part I: Summary and Conclusions of Natural England's advice

Summary of Natural England's Advice

Natural England's advice is that, in relation to identified nature conservation issues within its remit, there is no fundamental reason of principle why the project should not be permitted. However, Natural England considers that the applicant has provided insufficient evidence and is not yet satisfied that the following issues have been addressed:

- **Internationally designated sites**
 - Impacts from traffic emissions to air (Construction phase) ('amber').
 - Impacts from potential loss of functionally linked land (Construction phase) ('amber').
 - Clarification on scenarios used to assess the impacts from aerial emissions (Operation phase) ('amber').
 - Impacts of acid deposition from aerial emissions (Operation phase) ('amber').
 - Impacts of nitrogen deposition from aerial emissions (Operation phase) ('amber').
 - Impacts of ammonia from aerial emissions (Operation phase) ('amber').
 - Proposed mitigation for aerial emissions (Operation phase) ('amber').

- **Nationally designated sites**
 - Impacts from traffic emissions to air (Construction phase) ('amber').
 - Impacts from potential loss of functionally linked land (Construction phase) ('amber').
 - Clarification on scenarios used to assess the impacts from aerial emissions (Operation phase) ('amber').
 - Impacts of acid deposition from aerial emissions (Operation phase) ('amber').
 - Impacts of nitrogen deposition from aerial emissions (Operation phase) ('amber').
 - Impacts of ammonia from aerial emissions (Operation phase) ('amber').
 - Proposed mitigation for aerial emissions (Operation phase) ('amber').

- **Protected species**
 - Further information is required to determine that the project will not adversely affect bat species and badger ('amber').

- **Biodiversity net gain (BNG)**
 - Additional information is required in order to demonstrate that a 10% biodiversity net gain is achievable ('amber').
 - The river BNG units do not achieve net gain in either of the scenarios presented ('amber').
 - Clarity should be provided regarding impacts to habitats identified as habitats of principal importance (HPI) ('amber').

- **Soils and best and most versatile agricultural land**
 - The Agricultural Land Classification (ALC) Grade should be calculated for all agricultural land subject to development or disturbance ('amber').
 - Additional information should be provided in the Environmental Statement Chapter 11 Ground Conditions – EIA Methodology ('amber').
 - Additional information should be provided regarding sustainable soil management in the Soil Handling Management Plan ('amber').

Introduction

- 1.1. Natural England's advice in these relevant representations is based on information submitted by Drax Power Limited in support of its application for a Development Consent Order ('DCO') in relation to Drax Bioenergy with Carbon Capture and Storage Project (*the project*).
- 1.2. Part I of these representations summarises what Natural England considers the main issues¹ to be in relation to the DCO application and indicates the principal submissions that it wishes to make at this point. Natural England will develop these points further as appropriate during the examination process. It may have further or additional points to make, particularly if further information about the project becomes available.
- 1.3. Our comments are set out against the following sub-headings which represent our key areas of remit:
 - Internationally designated sites
 - Nationally designated sites
 - Protected species
 - Biodiversity net gain
 - Soils and best and most versatile agricultural land
- 1.4. Our comments are flagged as red, amber or green:
 - Red are those where there are fundamental concerns which it may not be possible to overcome in their current form.
 - Amber are those where further information is required to determine the effects of the project and allow the Examining Authority to properly undertake its task and or advise that further information is required on mitigation/compensation proposals in order to provide a sufficient degree of confidence as to their efficacy.
 - Green are those which have been successfully resolved (subject always to the appropriate requirements being adequately secured).
- 1.5. Natural England has been working with Drax Power Limited and WSP, on behalf of Drax Power Limited, to provide advice and guidance since 2021 through statutory consultations under Section 42 of the Planning Act 2008 and via Natural England's Discretionary Advice Service.
- 1.6. Part I of these representations provides an overview of the issues and a summary of Natural England's advice. Section 2 identifies the natural features relevant to this application. Section 3 summarises Natural England's overall view of the application and the main issues which it considers need to be addressed by the Secretary of State.
- 1.7. Part II of these representations sets out all the significant issues which remain outstanding, and which Natural England advises should be addressed by Drax Power Limited and the Examining Authority as part of the examination process in order to ensure that the project can properly be consented. These are primarily issues on which further information would be required in order to

¹ PINS NSIP Advice Note 11 Annex C sets out Natural England's role in infrastructure planning.
https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/10/PINS-Advice-Note-11_AnnexC_20150928.pdf

allow the Examining Authority properly to undertake its task or where further work is required to determine the effects of the project and to provide a sufficient degree of confidence as to the efficacy of the mitigation proposals.

- 1.8. Natural England will continue discussions with WSP, on behalf of Drax Power Limited, to seek to resolve these concerns and agree outstanding matters in a statement of common ground. Failing satisfactory agreement, Natural England advises that the matters set out in section 4 will require consideration by the Examining Authority as part of the examination process.
- 1.9. The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.

2.The natural features potentially affected by this application

Internationally designated sites

2.1. Natural England's position regarding impacts on internationally designated sites is summarised below. Further detail on our reasoning for this is given against each impact pathway within Part II.

2.1.1. Natural England is not yet satisfied for 'amber' issues identified in the text below that it can be ascertained beyond reasonable scientific doubt that the project would not have an adverse effect on the integrity of the following internationally designated sites:

- Lower Derwent Valley Special Area of Conservation (SAC)
- Lower Derwent Valley Special Protection Area (SPA)
- Lower Derwent Valley Ramsar
- Humber Estuary Special Area of Conservation (SAC)
- Humber Estuary Special Protection Area (SPA)
- Humber Estuary Ramsar
- River Derwent Special Area of Conservation (SAC)
- Skipwith Common Special Area of Conservation (SAC)
- Thorne Moor Special Area of Conservation (SAC)

2.1.2. Further information is required to assess the following impact pathways:

2.1.2.1. Impacts from construction traffic emissions to air (Construction phase) on Humber Estuary SAC/SPA/Ramsar designated features ('amber').

2.1.2.2. Impacts from potential loss of functionally linked land (Construction phase) associated with Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar in the off-site habitat provision area ('amber').

2.1.2.3. Clarification on scenarios used to assess the impacts from aerial emissions (Operation phase) on Humber Estuary SPA/SAC; Lower Derwent Valley SAC/SPA/Ramsar; Thorne Moor SAC; River Derwent SAC and Skipwith Common SAC designated features ('amber').

2.1.2.4. Impacts of acid deposition from aerial emissions (Operation phase) on Lower Derwent Valley SAC/Ramsar designated features ('amber').

2.1.2.5. Impacts of nitrogen deposition from aerial emissions (Operation phase) on Thorne Moor SAC and River Derwent SAC designated features ('amber').

2.1.2.6. Impacts of ammonia from aerial emissions (Operation phase) on Thorne Moor SAC ('amber').

2.1.2.7. Proposed mitigation for aerial emissions (Operation phase) on Lower Derwent Valley SAC/Ramsar; Thorne Moor SAC; River Derwent SAC; and Skipwith Common SAC designated features ('amber').

2.1.4. Natural England is satisfied that 'green' issues are unlikely to result in adverse effects on the integrity (AEol) of the following internationally designated sites, subject to the appropriate mitigation as outlined in the application documents being secured adequately:

2.1.4.1. The project is unlikely to result in pollution impacts from increased sediment load (Construction phase) on functionally linked land associated with the Lower Derwent Valley SPA/SAC/Ramsar, Humber Estuary SPA/Ramsar or River Derwent SAC, subject to the rigorous implementation of the mitigation measures specified within Section 12.10 of Chapter 12 (Water Environment) of Volume 1 of the Environmental Statement (ES) and the proposed Surface Water Management Plan, referenced in WE8 of the Register of Environmental Actions and Commitments (REAC) ('green').

2.1.4.2. The project is unlikely to result in impacts from accidental releases of water-borne pollutants (Construction and operation phase) on Lower Derwent Valley SAC, River Derwent SAC and Humber Estuary SAC designated features, subject to the rigorous implementation of the mitigation measures specified within Section 12.10 of Chapter 12 (Water Environment) of Volume 1 of the Environmental Statement (ES) and the proposed Surface Water Management Plan, referenced in WE8 of the Register of Environmental Actions and Commitments (REAC) ('green').

2.1.4.3. The project is unlikely to result in dust impacts (construction phase) on functionally linked land associated with the Lower Derwent Valley SPA/SAC/Ramsar, Humber Estuary SPA/Ramsar or River Derwent SAC, subject to the rigorous implementation of the mitigation measures specified within Section 1.3 of Appendix 6.2 (Construction & Decommissioning Dust Assessment) of Chapter 6 (Air Quality) in Volume 3 of the ES and AQ1 of the REAC ('green').

2.1.4.4 The project is unlikely to result in visual disturbance impacts (Construction phase) on functionally linked land associated with Lower Derwent Valley SPA/SAC/Ramsar, Humber Estuary SPA/Ramsar or River Derwent SAC, subject to the rigorous implementation of the general mitigation measures specified within G5 of the REAC, detailed lighting measures in accordance with the Draft Lighting Strategy, and additional mitigation measures for otter specified in E4 of the REAC.

Nationally designated sites

2.2. Natural England's position regarding nationally designated sites is summarised below. Further detail on our reasoning for this is given against each impact pathway in Part II.

2.2.1. On the basis of the information submitted in relation to these sites, Natural England is not yet satisfied that the project is not likely to damage features of interest of the following nationally designated sites:

- Brighton Meadows Site of Special Scientific Interest (SSSI)
- Derwent Ings SSSI
- Melbourne and Thornton Ings SSSI
- Humber Estuary SSSI
- River Derwent SSSI
- Eskamhorn Meadows SSSI
- Barn Hill Meadows SSSI
- Burr Closes SSSI
- Thorne, Crowle, and Goole Moors SSSI
- Skipwith Common SSSI
- Went Ings Meadows SSSI

2.2.2. Further information is required to assess the following impact pathways:

2.2.2.1. Impacts from construction traffic emissions to air (Construction phase) on Humber Estuary SSSI ('amber').

2.2.2.2. Impacts from potential loss of functionally linked land (Construction phase) associated with Brighton Meadows SSSI, Derwent Ings SSSI, Melbourne and Thornton Ings SSSI and Humber Estuary SSSI in the off-site habitat provision area ('amber').

2.2.2.3. Clarification on scenarios used to assess the impacts from aerial emissions (Operation phase) on Brighton Meadows SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Humber Estuary SSSI; River Derwent SSSI; Eskamhorn Meadows SSSI; Barn Hill Meadows SSSI; Burr Closes SSSI; Thorne, Crowle, and Goole Moors SSSI; Skipwith Common SSSI; and • Went Ings Meadows SSSI ('amber').

2.2.2.4. Impacts of acid deposition from aerial emissions (Operation phase) on Barn Hill Meadows, Brighton Meadows SSSI; Derwent Ings SSSI; and Melbourne and Thornton Ings SSSI ('amber').

2.2.2.5. Impacts of nitrogen deposition from aerial emissions (Operation phase) on Thorne, Crowle, and Goole Moors SSSI; and River Derwent SSSI ('amber').

2.2.2.6. Impacts of ammonia from aerial emissions (Operation phase) on Thorne, Crowle, and Goole Moors SSSI ('amber').

2.2.2.7. Proposed mitigation for aerial emissions (Operation phase) on Barn Hill Meadows SSSI, Brighton Meadows SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Thorne, Crowle, and Goole Moors SSSI; River Derwent SSSI; and Skipwith Common SSSI ('amber').

2.2.4. Natural England is satisfied that the 'green' issues outlined in 2.1.4 for internationally designated sites are not likely to damage features of interest of the underpinning nationally designated sites (i.e. Derwent Ings SSSI, Melbourne and Thornton Ings SSSI, Humber Estuary SSSI, and River Derwent SSSI), subject to the appropriate mitigation as outlined in the application documents being secured adequately.

Protected species

2.3. Natural England's position regarding protected species is summarised below. Further detail on our reasoning for this is given in part II.

2.3.1. On the basis of the information submitted, Natural England is not yet satisfied that the project will not adversely affect the following European protected species (EPS): bat species ('amber').

2.3.2. On the basis of the information submitted, Natural England is not yet satisfied that the project will not adversely affect the following nationally protected species: badger ('amber').

Biodiversity Net Gain

2.4. Natural England's position regarding provision of biodiversity net gain is summarised below. Further detail on our reasoning for this is given in Part II.

2.4.1. On the basis of the information submitted, Natural England is not yet satisfied with the following Biodiversity Net Gain (BNG) issues:

2.4.1.1. Additional information is required in order to demonstrate that a 10% biodiversity net gain is achievable ('amber').

2.4.1.2. Natural England notes that river BNG units achieve no net gain in either of the scenarios currently presented ('amber').

2.4.1.3. Clarity should be provided regarding impacts to habitats identified as habitats of principal importance (HPI) ('amber').

2.4.2. On the basis of the information submitted, Natural England is satisfied that 'green' issues regarding BNG have been adequately resolved, subject to the appropriate measures as outlined in the application documents being secured:

2.4.2.1. The Habitat Provision Area within the order limits has been included as on-site in the Biodiversity Net Gain Assessment, and is therefore subject to 10% net gain ('green').

Soils and best and most versatile agricultural land

2.5. Natural England's position regarding soils and the best and most versatile agricultural land is summarised below. Further detail on our reasoning for this is given in Part II.

2.5.1. Natural England provided discretionary advice to WSP (on behalf of Drax Power Limited) on 5 May 2022 regarding the Agricultural Land Classification (ALC) Methodology Approach for the Drax BECCS DCO Application. Comment was also provided regarding the agricultural land and soils environmental impact assessment (EIA) methodology. It appears that the ALC report and EIA have not been updated in response to the discretionary advice (DAS) provided in May 2022, other than the provision of an ALC plan of the site (Figure 11.2).

2.5.2. On the basis of the information submitted, Natural England is not yet satisfied with the following soils and best and most versatile agricultural land issues:

2.5.2.1. The ALC Grade should be calculated for all agricultural land (or land which was last used for agricultural use) subject to proposed development or disturbance ('amber').

2.5.2.2. Additional information should be provided in the Environmental Statement Chapter 11 Ground Conditions – EIA Methodology ('amber').

2.5.2.3. Additional information should be provided regarding sustainable soil management in the Soil Handling Management Plan. Inappropriate soil handling is currently proposed for the Habitat Provision Area ('amber').

3. Natural England's overall conclusions

3.1.1. Natural England's advice is that there are a number of matters which have not been resolved satisfactorily as part of the pre-application process that must be addressed by Drax Power Limited and the Examining Authority as part of the examination and consenting process before development consent can be granted, as summarised in Section 2 above and outlined in further detail in Part II below.

3.1.2. Some of these matters are important enough to mean that if they are not satisfactorily addressed it would not be lawful to permit the project due to its impacts on the SAC, SPA, Ramsar and SSSI interests. However, Natural England's advice is that all of these matters are capable of being overcome. The specific concerns in relation to each are detailed in Part II.

3.1.3. Natural England's advice is that in relation to identified nature conservation issues within its remit there is no fundamental reason of principle why the project should not be permitted but that:

- the applicant has provided insufficient evidence to establish that there will be no adverse impacts on the following internationally designated sites: Lower Derwent Valley Special SAC/SPA/Ramsar; Humber Estuary SAC/SPA/Ramsar; River Derwent SAC; Skipwith Common SAC or Thorne Moor SAC.
- the applicant has provided insufficient evidence to establish that the project is not likely to damage features of interest of the following nationally designated sites: Brighton Meadows SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Humber Estuary SSSI; River Derwent SSSI; Eskamhorn Meadows SSSI; Barn Hill Meadows SSSI; Burr Closes SSSI; Thorne, Crowle, and Goole Moors SSSI; Skipwith Common SSSI; or Went Ings Meadows SSSI.

- Natural England is not yet satisfied that the project will not adversely affect the following protected species: badger and bat species.
- Natural England is not yet satisfied with the following biodiversity net gain issues: additional information is required in order to demonstrate that a 10% biodiversity net gain is achievable; river BNG units achieve no net gain in either of the scenarios currently presented; and clarity should be provided regarding impacts to habitats identified as habitats of principal importance (HPI).
- Natural England is not yet satisfied with the following soils and best and most versatile agricultural land issues: the ALC Grade should be calculated for all agricultural land subject to proposed development or disturbance; additional information should be provided in the EIA Methodology; and additional information should be provided regarding sustainable soil management in the Soil Handling Management Plan - inappropriate soil handling is currently proposed for the Habitat Provision Area.

3.1.5. Natural England advises that, if approved, the project must be subject to all necessary and appropriate requirements which ensure that unacceptable environmental impacts either do not occur or are sufficiently mitigated.

Natural England's Relevant Representations

4. Part II: Natural England's detailed advice

4.1. Part II, Table 1 of these representations expands upon the detail of all the significant issues ('amber' issues) which, in our view remain outstanding and includes our advice on pathways to their resolution where possible. Table 1 also shows 'green' issues where a resolution has been reached and subject always to the appropriate requirements being adequately secured.

4.1.1. Natural England will continue engaging with the applicant to seek to resolve outstanding concerns throughout the examination. Natural England advises that the matters indicated as 'amber' will require consideration by the Examining Authority during the examination.

4.1.2. Detailed advice from Natural England regarding aerial emissions (Operation phase) on internationally and nationally designated sites has now been included in Table 1 (key issue references 18-26).

Natural England's Relevant Representations, Part II, Table 1

Table 1: Natural England's detailed advice					
Natural England key issue reference	Topic	Issue summary (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment	Natural England comment on the mechanism for securing mitigation/compensation measures in the DCO	Risk
1	Internationally designated sites <ul style="list-style-type: none"> Humber Estuary SAC Humber Estuary SPA Humber Estuary Ramsar 	Impacts from construction traffic emissions to air on Humber Estuary SAC/SPA/Ramsar designated features (C)	Natural England notes that the HRA 3.3.13 states " <i>None of the proposed construction traffic routes pass within 200m of any European Site, with the exception of a short stretch of the M62 which passes within 200 m of the upstream end of the Humber Estuary SAC, SPA and Ramsar and would likely be used by a proportion of HDV traffic accessing the Site (see Figure 5.5 (HDV Routing) in Volume 2 of the ES (document reference 6.2.5.5)).</i> " However, no	The measures specified in 6.3.5.1 Environmental Statement - Volume 3 - Appendix 5.1: Outline Construction Traffic Management Plan and T2 of the Register of Environmental Actions and Commitments (REAC) should be included in the Construction Worker Travel Plan (CTWP) and rigorously implemented. The measures specified in T3 of the REAC should be included in the Decommissioning traffic management plan. We are broadly satisfied	Amber

			<p>assessment has been provided regarding this potential impact pathway.</p> <p>We therefore advise that the potential for likely significant effects from traffic emissions on the Humber Estuary designated sites, alone and in-combination, is considered in more detail in the HRA.</p> <p>Natural England’s approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001) (http://publications.naturalengland.org.uk/publication/4720542048845824) may be relevant for informing the assessment. The document refers to guideline thresholds to check whether the predicted change is likely to be significant e.g. ≥1000 predicted average annual daily traffic flow (AADT) for traffic numbers or heavy duty vehicle flows on motorways (HDV) change by 200 AADT or more, or 1% of critical load or level for emissions. The HRA 3.3.13 notes “<i>a proportion of HDV traffic</i>” will use the stretch of the M62 which passes within 200m of the Humber Estuary designated sites. Therefore, the predicted AADT movements for HDV traffic in this area should also be estimated to inform the assessment.</p> <p>If further assessment is required, ammonia sourced from traffic emissions should also be included in the HRA. For further information please see this <u>report</u> from Air Quality Consultants (AQC) that looks at ammonia emissions from roads for</p>	<p>that these measures are secured in the requirements of the DCO.</p> <p>Natural England advises that the requirement for mitigation measures will depend on the outcome of the assessment of the potential for likely significant effects from traffic emissions on the Humber Estuary designated sites in the HRA.</p>	
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			<p>assessing impacts on nitrogen-sensitive habitats. The current CREAM model created by AQC used to assess ammonia emissions has been recognised as a Best Available Tool, and is appropriate to be used where any caveats associated with this model are also considered within the assessment.</p> <p>Sufficient justification should be provided if this impact pathway is scoped out of further assessment.</p>		
2	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Lower Derwent Valley SPA/Ramsar • Humber Estuary SPA/Ramsar 	<p>Impacts from potential loss of functionally linked land associated with Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar in the off-site habitat provision area.</p> <p>(C)</p>	<p>The HRA Table 3.3 states that there are potential impacts on functionally linked land associated with Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar. The rationale includes <i>“Habitat creation and management activities in the Habitat Provision Area (excluding the section to the north of the East Construction Laydown Area) and Off-site Habitat Provision Area could alter the suitability of those for SPA bird species.”</i> It is concluded in Table 3.7 that there is a potential likely significant effect from loss of functionally linked land for the above internationally designated sites.</p> <p>We note that an appropriate assessment has been provided for the relevant internationally designated sites in Section 4.2. However, the assessment focuses on the on-site Habitat Provision Area and does not refer to potential effects from construction and change in habitat provision</p>	<p>Natural England advises that the requirement for mitigation measures will depend on the outcome of the assessment of the potential impacts on functionally linked land in the off-site habitat provision area.</p>	Amber

			<p>in the off-site Habitat Provision Area. We therefore recommend that this is assessed in more detail in this section of the HRA. The information regarding recreational disturbance and provision of comparable habitat provided in Table 3.3 may be suitable to inform the assessment. In addition, we recommend a review of data centre records to determine whether significant numbers of SPA/Ramsar birds are likely to use the site, in the absence of additional survey data. Further justification should also be provided regarding why the newly created habitats are “<i>expected to provide comparable habitat for wintering SPA birds to the baseline situation</i>”, referring to the relevant SPA/Ramsar species.</p>		
3	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Lower Derwent Valley SPA/SAC/Ramsar • Humber Estuary SPA/Ramsar • River Derwent SAC 	<p>Impacts from increased sediment load on functionally linked land associated with the Lower Derwent Valley SPA/SAC/Ramsar, Humber Estuary SPA/Ramsar and River Derwent SAC designated features.</p> <p>(C)</p>	<p>No significant impacts from increased sediment load on functionally linked land are anticipated for the international designated sites listed.</p> <p>The potential risks to functionally linked land for designated features of the international designated sites, i.e. otter (Lower Derwent Valley SAC and River Derwent SAC) and bird species (Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar) can be adequately mitigated through the measures specified in the Surface Water Management Plan, referenced in WE8 of the Register of Environmental Actions and Commitments (REAC).</p>	<p>The mitigation measures specified in WE8 of the Register of Environmental Actions and Commitments (REAC) must be included in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) and rigorously implemented.</p> <p>We are broadly satisfied that these mitigation measures are secured in the requirements of the DCO. However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the REAC.</p>	Green

			However, there is clearly a dependency that mitigation set out in the REAC will be included in the CEMP and DEMP, and that these will be rigorously implemented and maintained.		
4	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Lower Derwent Valley SPA/SAC/Ramsar • Humber Estuary SPA/Ramsar • River Derwent SAC 	<p>Impacts from accidental releases of water-borne pollutants (Construction and operation phase) on Lower Derwent Valley SAC, River Derwent SAC and Humber Estuary SAC designated features</p> <p>(C) and (O)</p>	<p>No significant impacts from accidental releases of water-borne pollutants are anticipated for the international designated sites listed.</p> <p>The potential risks for designated features of the international designated sites, i.e. otter (Lower Derwent Valley SAC and River Derwent SAC), river lamprey and sea lamprey (Humber Estuary SAC) can be adequately mitigated through the measures specified in the Surface Water Management Plan, referenced in WE8 of the Register of Environmental Actions and Commitments (REAC).</p> <p>However, there is clearly a dependency that mitigation set out in the REAC will be included in the CEMP and DEMP, and that these will be rigorously implemented and maintained.</p>	<p>The mitigation measures specified in WE8 of the Register of Environmental Actions and Commitments (REAC) must be included in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) and rigorously implemented.</p> <p>We are broadly satisfied that these mitigation measures are secured in the requirements of the DCO. However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the REAC.</p>	Green
5	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Lower Derwent Valley SPA/SAC/Ramsar 	<p>Impacts from dust on functionally linked land associated with the Lower Derwent Valley SPA/SAC/Ramsar, Humber Estuary</p>	<p>No significant impacts from dust on functionally linked land are anticipated for the international designated sites listed.</p> <p>The potential risks from dust to functionally linked land for designated features of the international designated sites, i.e. otter</p>	<p>The mitigation measures specified in AQ1 of the Register of Environmental Actions and Commitments (REAC) must be included in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) and rigorously implemented.</p>	Green

	<ul style="list-style-type: none"> • Humber Estuary SPA/Ramsar • River Derwent SAC 	SPA/Ramsar and River Derwent SAC designated features. (C)	(Lower Derwent Valley SAC and River Derwent SAC) and bird species (Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar) can be adequately mitigated through the measures specified in Section 1.3 of Appendix 6.2 (Construction Dust Assessment) of Chapter 6 (Air Quality) in Volume 3 of the ES and AQ1 in the Register of Environmental Actions and Commitments (REAC). However, there is clearly a dependency that mitigation set out in the REAC will be included in the CEMP and DEMP, and that these will be rigorously implemented and maintained.	We are broadly satisfied that these mitigation measures are secured in the requirements of the DCO. However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the REAC.	
6	International designated sites <ul style="list-style-type: none"> • Lower Derwent Valley SPA/SAC/Ramsar • Humber Estuary SPA/Ramsar • River Derwent SAC 	Impacts from visual disturbance on functionally linked land associated with Lower Derwent Valley SPA/SAC/Ramsar, Humber Estuary SPA/Ramsar and River Derwent SAC (C)	No significant impacts from visual disturbance impacts on functionally linked land are anticipated for the international designated sites listed. The potential risks from visual disturbance to functionally linked land for designated features of the international designated sites, i.e. otter (Lower Derwent Valley SAC and River Derwent SAC) and bird species (Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar) can be adequately mitigated through the general measures specified in G5 of the REAC, lighting measures in D4 of the REAC (in accordance with the Draft Lighting Strategy), and additional mitigation measures for otter specified in E4 of the REAC.	The mitigation measures specified in G5, D4 and E4 of the Register of Environmental Actions and Commitments (REAC) must be included in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) and rigorously implemented. We are broadly satisfied that these mitigation measures are secured in the requirements of the DCO. However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the REAC.	Green

			However, there is clearly a dependency that mitigation set out in the REAC will be included in the CEMP and DEMP, and that these will be rigorously implemented and maintained.		
7	Nationally designated sites (biodiversity & geodiversity) <ul style="list-style-type: none"> Humber Estuary SSSI 	Impacts from traffic emissions to air on Humber Estuary SSSI (C)	Our advice regarding the potential impacts from traffic emissions to air on Humber Estuary SSSI coincide with our advice regarding the potential impacts upon the Humber Estuary SAC/SPA/Ramsar, as detailed above (Natural England key issue reference 1).	Natural England's advice regarding mitigation measures coincides with our advice regarding the Humber Estuary SAC/SPA/Ramsar, as detailed above (Natural England key issue reference 1).	Amber
8	Nationally designated sites (biodiversity & geodiversity) <ul style="list-style-type: none"> Brighton Meadows SSSI Derwent Ings SSSI Melbourne and Thornton Ings SSSI Humber Estuary SSSI 	Impacts from potential loss of functionally linked land associated with Brighton Meadows SSSI, Derwent Ings SSSI, Melbourne and Thornton Ings SSSI and Humber Estuary SSSI in the off-site habitat provision area. (C)	Our advice regarding the potential impacts from loss of functionally linked land associated with Brighton Meadows SSSI, Derwent Ings SSSI, Melbourne and Thornton Ings SSSI and Humber Estuary SSSI in the off-site habitat provision area coincide with our advice regarding the potential impacts upon the Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar (Natural England key issue reference 2).	Natural England's advice regarding mitigation measures coincides with our advice regarding the Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar, as detailed above (Natural England key issue reference 2).	Amber

9	Protected Species	Badger (C)	<p>Natural England is satisfied in principle with the content of the Environmental Statement – Volume 1 – Chapter 8 Ecology document and the associated appendices detailing protected species’ surveys.</p> <p>However, Paragraph 8.10.23 of the Environmental Statement - Volume 1 – Chapter 8 Ecology document states that two pre-construction badger surveys will be undertaken at least three months prior and one week prior to site clearance. It should be noted that a licence to exclude badgers and the destructions of setts is unlikely to be granted between the months of December to June. Careful consideration should be given to the timing of works to prevent delays should badgers be discovered prior to site clearance activities.</p>	<p>Natural England advises that the requirement for a licence will depend on the outcome of the pre-construction badger surveys.</p> <p>The surveys specified in E3 of the Register of Environmental Actions and Commitments (REAC) must be included in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) and rigorously implemented.</p> <p>We are broadly satisfied that these measures are secured in the requirements of the DCO. However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the REAC.</p>	Amber
10	Protected species	Bat species (C)	<p>It is stated in paragraph 2.1.3 of Volume 3 – Appendix 8.7 Bat Building Emergence Survey Report that internal inspections were to be undertaken on the buildings and the report updated. It is not clear if these have taken place and the report has not been updated. Internal inspections of the buildings to be demolished/impacted could provide new categorisations and subsequently require additional survey and subsequent mitigation/compensation should evidence of bats be discovered.</p> <p>It is noted in paragraph 4.1.2 of Volume 3 – Appendix 8.8 Bat Tree Roost Assessment</p>	<p>Natural England advises that the results of the further surveys are required to determine whether a protected species licence is likely to be required.</p> <p>The measures specified in E2 of the Register of Environmental Actions and Commitments (REAC) must be included in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) and rigorously implemented.</p> <p>We are broadly satisfied that these measures are secured in the requirements of the DCO.</p>	Amber

			<p>Survey Report that ten trees classified as having moderate or high potential should be subject to further survey. It is not clear if this has been undertaken.</p> <p>The results of the internal inspections should be provided to ensure the surveys undertaken have been appropriate for the building potential.</p>	<p>However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the REAC.</p>	
11	Biodiversity net gain	<p>Additional information required in order to demonstrate that a 10% biodiversity net gain is achievable</p> <p>(C)</p>	<p>Natural England welcomes the stated commitment within the Environmental Statement (6.1.8 Environmental Statement – Volume 1 – Chapter 8: Ecology) to provide a 10% biodiversity net gain (BNG) from the project and the use of Defra Biodiversity Metric 3.0 to assess the pre- and post-development value of the land.</p> <p>However, Natural England note that although a commitment to a 10% biodiversity net gain has been stated within the Environmental Statement Environmental Statement – Volume 1 – Chapter 8: Ecology) and supporting documents (6.10 Biodiversity Net Gain Assessment), this has not yet been demonstrated as achievable by the proposed scheme.</p> <p>If the plans cited within the “<i>future scenario sensitivity test</i>” in paragraph 3.1.8 of the Biodiversity Net Gain Assessment do not come to fruition, there will be no predicted change in river units and a 3.66% net gain</p>	<p>Natural England advise that to address this concern, further assessment and a strategy to demonstrate a 10% biodiversity net gain should be provided or form part of draft DCO Requirement 7 to ensure the required measures are able to be incorporated into the project. The strategy should outline the opportunities to increase biodiversity and achieve a target of 10% net gain for all habitat types identified across the DCO limits.</p> <p>This strategy should contain details on the future management, monitoring and remedial measures required to achieve the stated objectives, habitat condition assessments and any legal agreements in place to secure these for a minimum of 30 years (Natural England notes and concurs with the recommendation to secure the Off-site Habitat Provision Area via a Section 106 agreement). This is to ensure the plans are in accordance with NPPF 180 (d) to "secure measurable net gains" and Biodiversity Net Gain Good Practice Principle 5: Make a measurable Net Gain contribution.</p>	Amber

			<p>in habitat units, according to the presented “<i>worst-case scenario</i>”. The BNG Assessment recommends that “<i>the assessment be revisited prior and during Examination of the DCO</i>” in order to ascertain whether a 10% net gain can be achieved once landscape plans are finalised.</p> <p>Further assessment of BNG and provision of a strategy should be provided to outline the opportunities to increase biodiversity and achieve a target of 10% net gain for all habitat types identified across the DCO limits.</p>	<p>In order to ensure the plans are in accordance with NPPF 180 (d) to “secure measurable net gains”, Natural England advises that further information regarding the feasibility of achieving and securing a 10% net gain in all identified habitat types (hedgerow, habitat and river) should be provided or commitments reflected in Draft DCO Schedule 2 Requirement 7.</p> <p>Requirement 7 currently does not make reference to commitments to secure a 10% biodiversity net gain, update net gain calculations utilising the Defra Biodiversity metric based on final plans or the 30-year management and monitoring period.</p>	
12	Biodiversity net gain	River BNG units achieve no net gain in either of the scenarios currently presented	<p>Natural England notes that river BNG units do not achieve net gain in either of the scenarios currently presented. As stated above (Natural England key issue reference 14), the BNG strategy should achieve a target of 10% net gain for all habitat types identified across the DCO limits.</p> <p>We note that it is stated that “<i>Consultation with the Environment Agency is to be undertaken with regards to meeting a 10% net gain in river units. The Applicant is also exploring additional opportunities within the Order Limits to deliver BNG in relation to rivers.</i>” Natural England welcomes the</p>	<p>Natural England’s advice regarding the mechanism for securing relevant BNG measures in the DCO coincides with the above advice (Natural England key issue reference 11).</p>	Amber

			applicant's proposed consultation with the Environment Agency regarding opportunity to achieve the 10% net gain in river units and recommend that this is considered when finalising the BNG assessments.		
13	Biodiversity net gain	Clarity should be provided regarding impacts to habitats identified as habitats of principal importance (HPI) and proposed mitigation. (C)	<p>The Environmental Statement (6.1.8 Environmental Statement – Volume 1 – Chapter 8: Ecology) states that there are no Habitats of Principal Importance (HPI) within the order limits other than hedgerows which have been considered in the scheme.</p> <p>However, it is noted from the Biodiversity Net Gain Report that reedbed habitats (a HPI), are present and to be lost within the order limits, with no adequate mitigation or net gain achieved under a worst-case scenario basis.</p> <p>Further clarity regarding the impacts, mitigation and enhancement proposed are required in order to ensure the mitigation hierarchy has been sufficiently applied. If a loss of this habitat is anticipated this should be mitigated for in line with the Policy SP18 Protecting and Enhancing the Environment of the Selby District Core Strategy Local Plan. Natural England advises that habitats identified as local priorities such as HPis should form the basis for achieving a biodiversity net gain and opportunity to</p>	<p>Further clarity regarding the loss of a habitat of principal importance (reedbed) from within the order limits should be provided within the Environmental Statement.</p> <p>Natural England advises that adequate mitigation and net gain for HPI be demonstrated and secured, on-site in the first instance or off-site where justified.</p> <p>Natural England's advice regarding the mechanism for securing relevant BNG measures in the DCO coincides with the above advice (Natural England key issue reference 11).</p>	Amber

			enhance these where feasible is encouraged.		
14	Biodiversity net gain	<p>The Habitat Provision Area within the order limits has been included as on-site in the Biodiversity Net Gain Assessment, and is therefore subject to 10% net gain</p> <p>(C)</p>	<p>Natural England provided discretionary advice to WSP (on behalf of Drax Power Limited) on 5 May 2022 regarding the project level approach to Biodiversity Net Gain (DAS/A004280, dated 5th May 2022) in which concerns were raised regarding the method by which on and off-site habitat enhancement had been calculated. As per Natural England’s formal response to the Consultation on Biodiversity Net Gain Regulations and Implementation document issued by the Department for Environment, Food and Rural Affairs (DEFRA), an approach of considering any mitigation lands within the development boundary (or order limits) as “off-site” would not be supported.</p> <p>Two “habitat provision areas” are included, which are cited to deliver a biodiversity net gain for the scheme, one inside the order limits (the “Habitat Provision Area”) and one outside (the “off-site Habitat Provision Area”). As the Biodiversity Net Gain Assessment states that the habitat provision area within the order limits has been included as on-site (and is therefore subject to 10% net gain), Natural England are satisfied that this approach aligns with the advice provided.</p>	Natural England’s advice regarding the mechanism for securing relevant BNG measures in the DCO coincides with the above advice (Natural England key issue reference 11).	Green

15	Soils and Best and Most Versatile Agricultural Land	<p>The ALC Grade should be calculated for all agricultural (or land which was last used for agricultural use) land subject to proposed development or disturbance</p> <p>(C)</p>	<p>As stated in Chapter 2 Site and Project Description (May 2022), the application site is approximately 125 hectares (ha) plus an additional 12.3 ha Off-site Habitat Provision Area. Based on the Soil Resource and Agricultural Land Classification Survey (Appendix 11.2)) provided, an ALC survey has been undertaken on 10.2 ha of targeted land within the Project boundary, including 4.9 ha classified as Best and Most Versatile (BMV) (Grades 1, 2 and 3a land in the ALC system).</p> <p>The ALC survey methodology presented in the Soil Resource and Agricultural Land Classification Survey (Environmental Statement 11.2) is robust, however, coupled with the available Post-1988 ALC survey data, does not provide complete coverage of the agricultural land subject to disturbance from the proposed development within the project boundary (Figure 11.2).</p> <p>The ALC Grade should be calculated for all agricultural land (or land which was last used for agricultural use) subject to proposed development or disturbance to inform soil management and sustainable re-use.</p> <p>A detailed ALC field survey should be undertaken on the southern tip of the On-Site Habitat Provision Area to inform soil</p>	<p>Natural England advises that the ALC Grades should inform any requirements of the DCO. Natural England's advice regarding the mechanism for securing relevant soil handling measures in the DCO is detailed below (Natural England key issue reference 17).</p>	Amber
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			<p>management and sustainable re-use, as at present it remains un-surveyed.</p> <p>Two areas of land subject to the ALC survey (eastern parcel and central parcel) have not been assigned an ALC Grade based on their current non-agricultural land use. The ALC Grade is not based on the current land use or cropping of the land, but the inherent capability of the land.</p> <p>The ALC Grade should also be calculated for the western parcel with the data presented in Appendix 11.2.</p> <p>Further detail can be found in the Guide to assessing development proposals on agricultural land - GOV.UK (www.gov.uk).</p>		
16	Soils and Best and Most Versatile Agricultural Land	<p>Additional information should be provided in the Environmental Statement Chapter 11 Ground Conditions – EIA Methodology</p> <p>(C)</p>	<p>The Environmental Statement Chapter 11 Ground Conditions – EIA Methodology (6.1.11) should include a detailed breakdown of the land take into permanent and temporary losses for the different types of land use within the proposed development, broken down by ALC by area (ha) and percentage.</p> <p>The EIA should acknowledge the potential impact to the agricultural land beyond the East Construction Laydown Area.</p> <p>The Environmental Statement Chapter 11 Ground Conditions – EIA Methodology (6.1.11) criteria presents a modified EIA</p>	<p>The EIA should be in line with the methodology presented in the ICE (2019) EIA handbook. Consideration of the development impacts on the soil resource and soil function should also be considered (IEMA guidelines (2022)).</p> <p>The Environmental Statement should include a detailed breakdown of the land take into permanent and temporary losses for the different types of land use within the proposed development, broken down by ALC by area (ha) and percentage.</p> <p>Natural England advises that the outcomes of this assessment should inform any</p>	Amber

			methodology derived in part from the LA104 and LA109 DMRB methodology. The DMRB methodology applies to the assessment of road developments, and is therefore not the most appropriate criteria to utilise in this instance. Natural England advises that the EIA should be in line with the methodology presented in the ICE (2019) EIA handbook.	requirements of the DCO. Natural England's advice regarding the mechanism for securing relevant soil handling measures in the DCO is detailed below (Natural England key issue reference 17).	
17	Soils and Best and Most Versatile Agricultural Land	Additional information should be provided regarding sustainable soil management in the Soil Handling Management Plan. Inappropriate soil handling is currently proposed for the Habitat Provision Area. (C)	Additional information regarding sustainable soil management should be included in the Soil Handling Management Plan (SHMP) as part of the CEMP (<i>A Register of Environmental Actions and Commitments</i> (REAC; document 6.5). In order to both retain the long term potential of this land and to safeguard all soil resources as part of the overall sustainability of the whole development, it is important that the soil is able to retain as many of its many important functions and services (ecosystem services) as possible. Sustainable soil management should aim to minimise risks to the ecosystem services which soils provide, through appropriate site design / masterplan / Green Infrastructure etc. Inappropriate soil handling is currently proposed for the Habitat Provision Area to the north of the East Construction Laydown Area and the Off-Site Habitat Provision Area	Natural England advises that additional information regarding sustainable soil management should be included in the Soil Handling Management Plan (SHMP) as part of the CEMP. We recommend that these measures are secured in the requirements of the DCO. Appropriate measures in the SHMP may include: <ul style="list-style-type: none"> • Site specific soil management considerations informed from the detailed ALC survey (Appendix 11.2) and available Post-1988 ALC survey information. • The SHMP should demonstrate the sustainable, beneficial soil re-use of potential surplus soil resources. • Plans of the detailed ALC grades should inform restoration and allow confirmation that the current baseline across the Site has been restored. • Reference should be made to the Defra <u>Construction Code of Practice for the Sustainable Use of Soils on Construction Sites</u>. 	Amber

			<p>(Outline Landscape and Biodiversity Strategy).</p> <p>The Outline Landscape and Biodiversity Strategy (6.6.1) currently suggests topsoil stripping for the habitat provision areas.</p> <p>Paragraphs 3.3.16 and 3.3.34 state that to prepare the Habitat Provision Area to the north of the East Construction Laydown Area and the Off-Site Habitat Provision Area, the topsoil will either be removed or topsoil inversion will be undertaken. This would be disturbance or potential soil loss which is not currently considered in the EIA (Chapter 11). Topsoil stripping will result in a surplus of the finite soil resource.</p> <p>Natural England advises that the habitat creation and seed mixes are tailored to the soil resource present on site, using data presented in Appendix 11.2, avoiding the need for soil stripping or inversion.</p>	<ul style="list-style-type: none"> • The SHMP should include the type and volume of each soil type to be stripped and stockpiled; the nutrient status of the anticipated surplus soil units to inform the potential suitability for biodiversity enhancement; and where required, the location of soil storage and restoration, derived from the ALC survey. • For areas of temporary development, the ALC grade determined from the soil survey should be used to inform the restoration criteria, with temporarily disturbed BMV land returned to the same quality as far as practicable to minimise potential loss. • The methods by which the applicant intends to restore affected areas to agricultural use after works including excavations and restoration has finished. • An aftercare programme which would enable a satisfactory standard of agricultural after-use to be reached, with regards to cultivating, reseeded, draining or irrigating, applying fertiliser, or cutting and grazing the site. <p>Natural England would advise that commitments are made by the applicant to safeguard soil resources, including the provision of an appropriately experienced soil specialist to advise on and supervise soil</p>	
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				<p>handling, including identifying when soils are dry enough to be handled.</p> <p>All soil should be sustainably reused on site, either for reuse during operation or following decommissioning for restoration purposes. No soil should be disposed of. Soil inversion can damage the soil functioning and soil health and should be avoided.</p> <p>Defra has published a Construction Code of Practice for the Sustainable Use of Soils on Construction Sites which may be helpful when setting conditions.</p>	
18	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Humber Estuary SPA and SAC • Lower Derwent Valley SAC, SPA and Ramsar • Thorne Moor SAC • River Derwent SAC • Skipwith Common SAC 	<p>Clarification on scenarios used to assess the impacts from aerial emissions on Humber Estuary SPA/SAC; Lower Derwent Valley SAC/SPA/Ramsar; Thorne Moor SAC; River Derwent SAC and Skipwith Common SAC designated features.</p> <p>(O)</p>	<p>We note the assessment used a “realistic worst case” scenario to assess the project. However, it should be clarified whether this scenario involves only two units being operational at any one time (scenario i) or ii)) or if both will operate simultaneously. If it is the second option, it should also be clarified why the “non-CCS” units will be operating at half the hours of the CCS units. It should also be clarified whether there would be a situation where 3 or 4 of the units could be run, either with or without CCS.</p> <p>In addition, justification should be provided on why the full load operation (sensitivity test) resulted in lower impacts on protected sites, even when the total process impacts increase.</p>	<p>Natural England notes that the DCO does not currently secure the mitigation measures proposed to reduce air quality impacts. The mitigation measures and a detailed monitoring plan should be secured within the DCO requirements.</p> <p>Natural England advises that the requirement for additional mitigation measures will depend on the outcome of the assessment (key reference 19-22 below).</p>	Amber

19	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Lower Derwent Valley SAC • Lower Derwent Valley Ramsar 	<p>Impacts of acid deposition from aerial emissions on Lower Derwent Valley SAC/Ramsar designated features (alone and in-combination).</p> <p>(O)</p>	<p>Section 4.2.176 of the HRA states that the exceedance of the 1% screening criterion for acid deposition occurs 'only' over the Brighton Meadows SSSI component of the SAC, which supports approximately 18% of the Lower Derwent Valley SAC lowland hay meadow habitat. The HRA identifies that the site is currently in favourable condition despite having high background levels of acid deposition. However, Natural England notes that SSSI assessment methodology does not explicitly account for air quality impacts or pressures. Recent case law (Dutch Nitrogen ruling) makes it clear that small contributions should not be disregarded entirely. Where a site exceeds the environmental benchmarks, potential additional damaging effects will need careful justification.</p> <p>We advise that further assessment should be provided to determine whether the additional contribution is likely to undermine the conservation objectives of the site. Examples of such evidence may include the sensitivity of the species present in this case; any trends in acid deposition in the area, and the characteristics and specific environmental conditions at the site concerned. Further information on suitable sources of evidence can be found in Natural England's guidance document NEA001. If adverse effect cannot be ruled out, then further mitigation may be required.</p>	<p>Natural England notes that the DCO does not currently secure the mitigation measures proposed to reduce air quality impacts. The mitigation measures and a detailed monitoring plan should be secured within the DCO requirements.</p> <p>Natural England advises that the requirement for additional mitigation measures will depend on the outcome of the assessment.</p>	Amber
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20	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Thorne Moor SAC • River Derwent SAC 	<p>Impacts of nitrogen deposition from aerial emissions on Thorne Moor SAC (in-combination) and River Derwent SAC designated features (alone and in-combination)</p> <p>(O)</p>	<p><u>Thorne Moor SAC</u></p> <p>Section 4.3.40 of the HRA identifies that there will be an in-combination process contribution of up to 1.7% of the critical load. We note that Natural England guidance document NECR210 (Caporn, 2017) has been used to state that effects of additional nitrogen where background deposition rates are already high are much reduced relative to where background deposition rates are low, and the conclusion is that the small additional input would not be sufficient to reduce the species richness.</p> <p>Although a useful piece of evidence among others, the “loss of one species” calculation in NECR210 does not recognise that species richness or inter-species competitiveness may be impacted at much lower rates, and it may be these measures that are more important indicators of “site integrity.” Other methods of assessment are described in the NECR210 report. Therefore, additional evidence should be provided to assess whether the development would undermine the conservation objectives, by the addition of 1.7% nitrogen deposition in-combination. Examples of such evidence may include the sensitivity of the species present in this case, any trends in N dep in the area, the spatial extent of the SAC impacted and the characteristics and specific environmental conditions at the site concerned. If adverse effect cannot be ruled out, then further mitigation may be required.</p>	<p>Natural England notes that the DCO does not currently secure the mitigation measures proposed to reduce air quality impacts. The mitigation measures and a detailed monitoring plan should be secured within the DCO requirements.</p> <p>Natural England advises that the requirement for additional mitigation measures will depend on the outcome of the assessment.</p>	Amber
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			<p><u>River Derwent SAC</u></p> <p>Natural England notes that our previous advice in the Section 42 response (dated 10 December 2021) and Discretionary Advice Service response (dated 5 May 2022) regarding potential air quality impacts on supporting habitats associated with the River Derwent Special Area of Conservation (SAC) has not been taken into account in the air quality assessment or Habitats Regulations Assessment - Volume 1 - Main Text (hereafter 'the HRA') documents. As stated in our advice dated 5 May 2022, potential air quality impacts on supporting habitats associated with the River Derwent SAC, including riparian habitats, such as wet woodland and fen, should be assessed. We note that no critical load has been provided for nitrogen deposition for the River Derwent SAC in the Environmental Statement - Volume 3 - Appendix 6.5: Operational Phase Air Quality Results Tables: Ecological Receptors. As previously stated, we recommend that the critical load for the most sensitive riparian habitat type is used as a proxy value; the relevant critical levels/loads for 'Fen, Marsh and Swamp' and 'Broadleaved, Mixed and Yew Woodland' can be found on Air Pollution Information System (APIS) (2022) to inform the assessment.</p> <p>Natural England has advised the applicant that nutrient deposition should be considered in the Habitats Regulations</p>		
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			<p>Assessment (HRA). We broadly agree with the information included in the Briefing Note for Natural England about phosphate limitation in the River Derwent (DRAX Re-Power HRA Report) - revision 3 (dated November 2018). However, Natural England advises that a precautionary approach is taken to applying this information in the context of additional inputs of nitrates on the River Derwent SAC/SSSI. Although currently phosphate limited, it is difficult to predict tipping points in river systems and separate impacts due to multiple diffuse sources. We would highlight that the Conservation Objectives Supplementary Advice (COSA) should be used to inform any Habitats Regulations Assessment (HRA) considering potential impacts on the SAC. The HRA should assess the effect the project will have in relation to quality of the river and impacts to the riparian habitats and what implications that will have on meeting the site targets, alone and in-combination.</p>		
21	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Thorne Moor SAC 	<p>Impacts of ammonia from aerial emissions on Thorne Moor SAC designated features (in-combination).</p> <p>(O)</p>	<p>Section 4.3.39 of the HRA states that as the in-combination exceedance is 'only' marginally above 1% of the critical load there will be no perceptible impact to Thorne Moor SAC vegetation. Natural England does not accept this approach to round down to a whole number. Our concern is that this could lead to situations where there are multiple process contributions, for example, 1.1% + 1.3% being screened out entirely, but when added together are significant. Where any</p>	<p>Natural England notes that the DCO does not currently secure the mitigation measures proposed to reduce air quality impacts. The mitigation measures and a detailed monitoring plan should be secured within the DCO requirements.</p> <p>Natural England advises that the requirement for additional mitigation measures will depend on the outcome of the assessment.</p>	Amber

			<p>PC has exceeded the 1% threshold and the PEC exceeds > 70% of the threshold, this triggers the requirement for further assessment to demonstrate that the proposed emissions will not damage or destroy the interest features for which the sites have been notified.</p> <p>Therefore, further evidence is required to assess whether the development is likely to result in an impact on integrity of the site. Examples of suitable evidence would be anticipated to include the sensitivity of the species present in this case, any trends in N dep in the area, the spatial extent of the SAC impacted and the characteristics and specific environmental conditions at the site concerned.</p>		
22	<p>Internationally designated sites</p> <ul style="list-style-type: none"> • Lower Derwent Valley SAC and Ramsar • Thorne Moor SAC • River Derwent SAC • Skipwith Common SAC 	<p>Proposed mitigation for impacts of aerial emissions on Lower Derwent Valley SAC/Ramsar; Thorne Moor SAC; River Derwent SAC; and Skipwith Common SAC designated features.</p> <p>(O)</p>	<p>Section 4.2.170 of the HRA states that the mitigation reduces the acid deposition impact to Thorne Moor SAC to give no adverse effect on integrity, and section 4.3.46 of the HRA states that the mitigation measures proposed reduce the acid deposition from the proposed development to give no adverse effect on Skipwith Common SAC. Acid deposition to Lower Derwent Valley SAC and Ramsar is also reduced but is 1.1% of the critical load with the mitigation.</p> <p>We advise that further clarification on the mitigation measures proposed is required to inform the assessment, including:</p>	<p>Natural England notes that the DCO does not currently secure the mitigation measures proposed to reduce air quality impacts. The mitigation measures and a detailed monitoring plan should be secured within the DCO requirements.</p> <p>Natural England advises that the requirement for additional mitigation measures will depend on the outcome of the assessment.</p>	Amber

			<ul style="list-style-type: none"> • the scientific basis of the evidence, and how it would avoid or reduce effects on site; • How it would be implemented and by whom; • The degree of confidence in its success; • The timescale over which it will be implemented, maintained and managed; • How the measures will be secured, monitored and enforced; • If the measure failed, how the failure will be rectified. <p>Please also confirm whether there is an appropriate example of an existing development where the proposed mitigation has been effective.</p> <p>We also note an increase in temperature of the flue gas is proposed as part of the mitigation measures. We anticipate this may result in dispersion of pollutants further away from the development site and over a wider area. Therefore, it should also be clarified whether the in-combination assessment has accounted for this.</p>		
23	Nationally designated sites <ul style="list-style-type: none"> • Brighton Meadows SSSI 	Clarification on scenarios used to assess the impacts from aerial emissions on Brighton Meadows	Our advice regarding the scenarios used to assess scenarios used to assess the impacts from aerial emissions on Brighton Meadows SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Humber Estuary SSSI; River Derwent SSSI;	Natural England's advice regarding mitigation measures coincides with our advice regarding internationally designated sites as detailed above (Natural England key issue reference 18).	

	<ul style="list-style-type: none"> • Derwent Ings SSSI • Melbourne and Thornton Ings SSSI • Humber Estuary SSSI • River Derwent SSSI • Eskamhorn Meadows SSSI • Barn Hill Meadows SSSI • Burr Closes SSSI • Thorne, Crowle, and Goole Moors SSSI • Skipwith Common SSSI • Thorne Crowle and Goole Moors SSSI 	<p>SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Humber Estuary SSSI; River Derwent SSSI; Eskamhorn Meadows SSSI; Barn Hill Meadows SSSI; Burr Closes SSSI; Thorne, Crowle, and Goole Moors SSSI; and Skipwith Common SSSI.</p> <p>(O)</p>	<p>Eskamhorn Meadows SSSI; Barn Hill Meadows SSSI; Burr Closes SSSI; Thorne, Crowle, and Goole Moors SSSI; and Skipwith Common SSSI</p> <p>coincides with our above advice regarding the Humber Estuary SPA/SAC; Lower Derwent Valley SAC/SPA/Ramsar; Thorne Moor SAC; River Derwent SAC and Skipwith Common SAC (Natural England key issue reference 18).</p> <p>This clarification should also consider additional relevant nationally designated sites Eskamhorn Meadows SSSI, Barn Hill Meadows SSSI and Burr Closes SSSI.</p>		
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	<ul style="list-style-type: none"> Went Ings Meadows SSSI 				
24	<p>Nationally designated sites</p> <ul style="list-style-type: none"> Barn Hill Meadows SSSI Brighton Meadows SSSI Derwent Ings SSSI 	<p>Impacts of acid deposition from aerial emissions on Barn Hill Meadows SSSI, Brighton Meadows SSSI, Derwent Ings SSSI (alone and in-combination)</p> <p>(O)</p>	<p><u>Barn Hill Meadows SSSI</u></p> <p>Natural England notes Table 6.18 of Environmental Statement – Volume 1 Chapter 6: Air Quality states that after mitigation the maximum process contribution is 1.1% of the critical level for Barn Hill Meadows SSSI, when considering the project alone. Therefore, based on the information provided, the project could have potential significant effects on the interest features for which the Barn Hill Meadows SSSI site has been notified. However, no assessment has been provided of these results in 6.1.8 Environmental Statement - Volume 1 - Chapter 8: Ecology or other documents. Therefore, we are not yet satisfied that the project is not likely to damage features of interest of Barn Hill Meadows SSSI and additional information and assessment should be provided.</p> <p><u>Brighton Meadows SSSI and Derwent Ings SSSI</u></p> <p>Our advice regarding the potential impacts of acid deposition from aerial emissions of on the Brighton Meadows SSSI and Derwent Ings SSSI coincides with our advice regarding the potential impacts upon the Lower Derwent Valley SAC as detailed</p>	<p>Natural England’s advice regarding mitigation measures coincides with our advice regarding Lower Derwent Valley SAC/Ramsar as detailed above (Natural England key issue reference 19).</p>	Amber

			above (Natural England key issue reference 19).		
25	Nationally designated sites	Impacts of nitrogen deposition from aerial emissions on Thorne, Crowle, and Goole Moors SSSI (in-combination); and River Derwent SSSI (alone and in-combination). (O)	Our advice regarding the potential impacts of nitrogen deposition from aerial emissions upon the Thorne, Crowle, and Goole Moors SSSI and River Derwent SSSI coincides with our advice regarding the potential impacts upon the Thorne Moor SAC and River Derwent SAC as detailed above (Natural England key issue reference 20).	Natural England's advice regarding mitigation measures coincides with our advice regarding Thorne Moor SAC and River Derwent SAC as detailed above (Natural England key issue reference 20).	Amber
26	Nationally designated sites <ul style="list-style-type: none"> • Barn Hill Meadow • Brighton Meadows SSSI • Derwent Ings SSSI • Melbourne and Thornton Ings SSSI • Thorne, Crowle, and Goole Moors SSSI • River Derwent SSSI • Skipwith Common SSSI. 	Proposed mitigation for impacts of aerial emissions on Barn Hill Meadows; Brighton Meadows SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Thorne, Crowle, and Goole Moors SSSI; River Derwent SSSI; and Skipwith Common SSSI. (O)	Our advice regarding proposed mitigation for impacts of aerial emissions on Brighton Meadows SSSI; Derwent Ings SSSI; Melbourne and Thornton Ings SSSI; Thorne, Crowle, and Goole Moors SSSI; River Derwent SSSI; and Skipwith Common SSSI coincides with our advice regarding Lower Derwent Valley SAC/Ramsar; Thorne Moor SAC; River Derwent SAC; and Skipwith Common SAC (Natural England key issue reference 21). This assessment should also consider additional relevant nationally designated site Barn Hill Meadows SSSI.	Natural England's advice regarding mitigation measures coincides with our advice regarding internationally designated sites as detailed above (Natural England key issue reference 21).	Amber

Natural England's Relevant Representations

PART III: Natural England's detailed comments on the draft Development Consent Order (DCO) and associated documents

3.1. Table 2 details Natural England's comments on the application document 3.1 Draft Development Consent Order.

Natural England's Relevant Representations, Part III, Table 2

Page	DCO reference	Natural England's comments	Risk (Red/Amber/Green)
38	Schedule 2 - Requirement 6	Natural England welcomes Requirement 6, including the reference to the relevant items in the register of environmental actions and commitments, and highlights that it is essential to the robustness of the Habitats Regulations Assessment.	Green
38	Schedule 2 - Requirement 7	Natural England broadly welcomes Requirement 7. However, Requirement 7 currently does not make reference to biodiversity net gain commitments. We recommend that Requirement 7 should include commitments to secure a 10% biodiversity net gain, update net gain calculations utilising the Defra Biodiversity metric based on final plans, and reference to the 30-year management and monitoring period. Detailed advice is included in Table 1 above (Natural England reference 11).	Amber
38	Schedule 2 - Requirement 8	Natural England welcomes Requirement 8 and highlights that the principles set out in the outline lighting strategy are essential to the robustness of the Habitats Regulations Assessment.	Amber
40	Schedule 2 - Requirement 14	Natural England welcomes Requirement 14 and highlights that the construction environmental management plan (CEMP) is essential to the robustness of the Habitats Regulations Assessment. We note that the requirement for additional mitigation measures will depend on the outcome of the assessment of potential impacts on internationally and nationally designated sites (Table 1 above). We also highlight that additional information regarding sustainable soil management should be included in the Soil Handling Management Plan (SHMP) as part of the CEMP (Natural England key issue reference 17 in Table 1 above).	Amber

41	Schedule 2 - Requirement 15	Natural England welcomes Requirement 15 and highlights that it is essential to the robustness of the Habitats Regulations Assessment. We note that the requirement for mitigation measures will depend on the outcome of the assessment of potential impacts on internationally and nationally designated sites (Natural England key issue reference 2 and 9 in Table 1 above).	Amber
41	Schedule 2 - Requirement 17	Natural England welcomes Requirement 17 and highlights that it is essential to the robustness of the Habitats Regulations Assessment.	Green
42	Schedule 2 - Requirement 18	Natural England welcomes Requirement 18 and highlights that it is essential to the robustness of the Habitats Regulations Assessment. However, we note that the draft DCO Schedule 2 Requirement 18 does not make reference to the commitments in the Register of Environmental Actions and Commitments (REAC). We also note that the requirement for additional mitigation measures will depend on the outcome of the assessment of potential impacts on internationally and nationally designated sites (Natural England key issue reference 1-3 and 8-11 in Table 1 above).	Amber
42	Schedule 2 - Requirement 19	Natural England welcomes Requirement 19. We note that the requirement for mitigation measures will depend on the outcome of the assessment of potential impacts on internationally and nationally designated sites (Natural England key issue reference 2 and 9 in Table 1 above).	Amber
NA	NA	Natural England notes that the DCO does not currently secure the mitigation measures proposed to reduce air quality impacts. The mitigation measures and a detailed monitoring plan should be secured within the DCO requirements. We highlight that securing the mitigation measures is essential to the robustness of the Habitats Regulations Assessment. We also note that the requirement for additional mitigation measures will depend on the outcome of the assessment of potential impacts on internationally and nationally designated sites (Natural England key issue references 18-26 in Table 1 above).	Amber