

**From:** [Muller, Antony](#)  
**To:** [H2Teesside](#)  
**Cc:** [H2 Teesside Correspondence](#); [Percy, Tamara](#); [Koshcheeva, Katerina \(Guest\)](#); [Shadlock, Rebecca](#); [Forecast, Lauren](#); [Doyle, Cara](#); [Dixon, Naomi-Beth](#)  
**Subject:** EN070009 - H2 Teesside - DL4 submission - Natural England  
**Date:** 20 November 2024 15:21:12  
**Attachments:** [EN070009\\_SoCGUpdate\\_EarlyNov2024 \(2\).pdf](#)

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Dear H2 Teesside Team,

**H2 Teesside – EN070009 - D4 Feedback/update in respect of –**

- **Comments on any other submissions received at DL3, including responses to the comments made on any post-PM submissions and any comments made on WRs, and;**
- **A statement of progress on SoCG that remain outstanding and submission of SoCG completed since DL3 (if required)**

We wish to update you on progress resolving Natural England’s written representations, as follows:

Natural England and the applicant continue in dialogue. We attach a copy of our most recent feedback to the applicant on the draft Statement of Common Ground, for reference.

In summary

**‘Matters agreed’:**

<b>Natural England representation reference</b>	<b>Subject of matter agreed</b>	<b>DCO/Requirement provision required?</b>
NE1	Direct Loss of SPA habitat – ‘Risk of HDD Collapse/Leakage of Drilling Fluid to SPA Sites’	Yes – Check CEMP wording
NE4	Noise disturbance during Construction and operation on qualifying SPA / Ramsar bird species. Use of IECS toolkit	No (Reps NE5,6,7 address the disturbance theme)
NE9	Air quality emissions - Use of management plans to mitigate impacts – Dust – ‘Construction dust assessment and monitoring’	Yes – suitable provision within Final CEMP
NE11	‘Air quality - Scope of pollutants considered in the Assessment – ‘Air quality emissions’	Yes – Written Reps refer – Final CEMP and PPW CEMP
NE13	Clarification of parameters in the Rochdale Envelope – ‘Stack height determination’	No

NE16	Use of management plans to mitigate impacts – ‘Construction Dust Assessment and Monitoring’	Yes – suitable provision within Final CEMP
NE20	Water quality - Nutrient Neutrality Assessment – ‘Water Quality and Nutrient Neutrality’	No – Doc ref 8.16 refers (Applicant’s response on Deadline 2 submissions)
NE21	Water Quality Environmental Impact Assessment evidence base	No – Doc ref 8.16 refers
NE22	Water Quality Surface water run off impacts	Yes – Doc ref 8.16 refers
NE23	Water Quality Discharged Effluent	No – Doc ref 8.16 refers
NE24	Air quality Impact of acid deposition	No
NE25	Durham Coast SAC, Northumbria Coast Ramsar Site - Air quality - Impact of Nitrogen deposition on qualifying Species	No – Matter agreed at Written Reps
NE27	River Tweed SAC and Tweed Estuary SAC Impact on Atlantic Salmon and Sea Lamprey	Yes – Written Reps refer – Lighting Strategy
NE32	Bats - Survey effort	Interim response – see attached document for details
NE33	Water vole – Survey effort	Interim response – see attached document for details
NE36	Other Valuable and Sensitive Habitats, Species, Landscapes, and Access Routes - King Charles III England Coast Path	Representation for information only

**Matters remaining under discussion, not agreed** (covered in the attached Draft Statement of Common Ground feedback document):

**Natural  
England  
Representation  
reference**

**Subject**

NE8	Loss of sightlines for SPA birds - Blast Furnace Pool
NE10	Air quality emissions - Consideration of ammonia and acid deposition in the traffic

Assessment - 'Ammonia emissions from vehicles and acid deposition'

NE 12	Air quality emissions - Scope of pollutants considered in the assessment - Sources of operational pollutants
NE15	Process followed in the HRA - 'Approach to HRA – Air Quality'
NE17	Teesmouth and Cleveland Coast SPA - Air quality - Nitrogen deposition
NE18	Ecotoxicology – Amines
NE28	Teesmouth and Cleveland Coast SSSI - Consideration of ammonia and acid deposition in the traffic assessment
NE31	Air Quality Impact of pollutants at SSSIs including SSSIs underlying European designations – Impact of pollutants at SSSIs
NE34	Biodiversity Net Gain (BNG)
NE35	Soils / Best and most versatile land

**Matters remaining under discussion, not agreed** (not included in the attached draft SoCG feedback document)

**Natural England  
Representation  
reference**

**Subject**

**Summary**

NE2	Teesmouth and Cleveland Coast SPA - Assessment of significance of impacts on SPA bird populations	Following our most recent meeting on 6.11.24 Natural England awaits further information from the applicant on a revised methodology for impact assessment. Key focuses are clarification of both concurrent and consecutive noise and visual disturbance impacts during the construction phase and specific consideration of impulsive noise).
NE3	Teesmouth and Cleveland Coast SPA - Loss of Functionally linked land – Temporary and permanent	Consistent with comments for NE2 above Natural England awaits clarification over areas of temporary and permanent habitat loss within impacted areas.
	Clarification of the in combination	Following our most recent meeting on 6.11.24 the applicant has stated that although some of the information is available relating to neighbouring development schemes (location, red line boundary), consistent bird survey data and

NE14	assessment Process	related impact assessments, either are not available, or do not allow meaningful comparison/assessment. Natural England has taken an action to review and confirm what project information is needed to achieve the requested, additional in combination assessment work.
NE19	Teesmouth and Cleveland Coast SPA/Ramsar Site - In combination assessment	As above (Comments as for NE14)
NE26	North Northumberland Coast SAC, The Humber Estuary SAC and the Wash and North Norfolk Coast SAC). Noise disturbance – Seals	Natural England has provided the applicant with further advice on 19.11.24. This focuses on the continued need for specific 'M' (mammal) weighted noise assessment data in order to inform suitable mitigation for noise impacts at Greatham Creek. Notwithstanding this further information requirement, Natural England has offered further information to inform the formulation of a suitable seal monitoring programme for the HDD works at this location.

Please contact me if you have any questions about this information.

Kind regards

Antony

Antony Muller (he/him)

Senior Officer

Northumbria Area Team – Strategic Plans for Places

Mobile – [REDACTED]

<http://www.naturalengland.org.uk/>



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**Screening Service ([PSS](#)) provides advice for protected species mitigation licence applications.**

**These services help applicants take appropriate account of environmental considerations at an early stage of project development, reduce uncertainty, reduce the risk of delay and added cost at a later stage, whilst securing good results for the natural environment.**

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**NE/H2T Statement of Common Ground – November update**

**Update on NE written representations proposed for closure (as matters agreed) by H2T as at 31.10.24**

<p><b>NE written rep reference</b></p> <p><b>(Original SoCG reference in brackets where applicable)</b></p>	<p><b>Applicant’s D3 Response</b></p> <p>Sources: Natural England Habitats Regulations Assessment Written Responses Response Table Document Reference 8.15</p> <p>And:</p>	<p><b>Natural England’s response</b></p>	<p><b>Matter agreed/not agreed/remains under discussion?</b></p>
<p>NE1 Risk of HDD Collapse/Leakage of Drilling Fluid to SPA Sites</p> <p>(Matter 1 - Habitats Regulations Assessment ('HRA') – Ongoing Discussions)</p>	<p>The Framework CEMP was updated at Deadline 2 [REP2-011] to take account of Natural England’s Relevant Representation. Reference to a clean-up plan has been added to the list of plans to be produced as part of the Final CEMP (Paragraph 2.3.2 and Table 7-2). This has also been updated in the HRA as part of the Proposed Change Application</p>	<p>Para 6.1.8 Report to inform HRA - We note the inclusion of the following bullet points in the framework CEMP which are proposed to be secured in the final CEMP:</p> <ul style="list-style-type: none"> <li>• A review of the HDD works undertaken for Net Zero Teesside will be undertaken to assess the effectiveness of site procedures and whether any ‘lessons learned’ would be beneficial to HDD operations of the Proposed Development;</li> <li>• A Clean-up plan (to deal with any pollution impacts arising from any HDD collapse) will be produced as part of the Final CEMP;</li> <li>• Natural England would be consulted on the effectiveness of the proposed measures in reducing effects on designated sites;</li> </ul> <p>Together with water REAC table 7-2 reference to consultation with Natural England we are satisfied this matter can be closed (matter agreed).</p>	<p>Matter agreed</p>

	<p>[EN070009/EXAM/7.3], see Paragraph 6.1.8. The specific wording proposed by Natural England has not been included as the Applicant did not have sight of this prior to the submission of the updated Framework CEMP at Deadline 2. However, the principles of what NE are seeking have been incorporated in the wording proposed. The Proposed Development does not involve access to the intertidal environment. In addition, consultation with Natural England regarding HDD works is already secured in the water REAC table (Table 7-2), contained within the Framework CEMP [REP2-011], as follows: "Natural England, and any landowner of land crossed by the HDD, would be consulted on the effectiveness of the proposed measures in reducing effects on designated sites." 1.1.2</p>		
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<p>NE4 - Use of IECS 2013 'Waterbird Disturbance Mitigation Toolkit' (as per your email on 16 October)</p> <p>(Matter 1 - Habitats Regulations Assessment ('HRA') – Ongoing Discussions)</p>	<p>Please refer to the Applicant's response to NE5 below.</p> <p>NE5 response here: Please see the further detail on this point provided in the text following this table. The Applicant will discuss consideration of the scheme's work phases further with NE and progress will be reported within the SoCG over the course of the Examination. Any updates needed to the HRA will form part of these discussions.</p>	<p>Natural England is satisfied that this matter is being addressed through dialogue with the applicant over representation NE5 Noise Impact Assessment.</p>	<p>Matter agreed</p>
<p><b>NE8:</b> Sightlines from the Blast Furnace Pool</p> <p>(Matter 1)</p>	<p>It is noted that the changes to Main Site elevations considered under Change 7 would not make any change to the conclusions with regards to visual disturbance in the Report to Inform HRA. Until recently, significant steelworks structures and conveyors occupied the Main Site, resulting in a</p>	<p>Without clearer information about the height, scale and proximity of the plant's buildings and infrastructure on the adjacent main site Natural England's position remains that uncertainty exists over the scheme's impacts on future use of this pool.</p> <p>We note the bird survey results and believe, that although the pool's use by SPA birds is at a low level, it serves an important function as a refuge when tidal/weather conditions elsewhere in the estuary are less favourable.</p> <p>Mitigation measures to offset uncertainty over the scheme's impacts need further consideration.</p>	<p>Matter not agreed – further discussion needed</p>



	<p>lack of sight lines for many years prior. If any sight lines have opened up, this was a recent development that has only occurred in the last few months due to the ongoing demolition of structures on the Main Site by STDC. The Applicant will discuss this further with NE and progress will be reported within the SoCG over the course of the Examination. Any updates needed to the HRA will form part of these discussions.</p>		
<p><b>NE9:</b> Construction Dust Assessment and Monitoring (Matter 3)</p>	<p>Human receptors are generally more sensitive to dust than ecosystems because of particulates in atmosphere that can be breathed into the lungs. In contrast, for ecosystems the main concern of dust is coating of vegetation (i.e. much larger than the particles that can be breathed into the lungs). Therefore, measures that will control dust emissions to such an extent that small particulate release is</p>	<p>While IAQM guidelines are robust, sites near ecologically sensitive areas, like Teesmouth, may require tailored approaches. Ecosystems, particularly vegetation, can be impacted differently than human health, as dust accumulation on foliage can interfere with photosynthesis and growth. Although this is a different pathway to human health impacts, the receptors are closer and both large and small particles are relevant, as well as their chemical composition. This distinction reinforces the need for assurances that dust mitigation accounts for ecological sensitivities, not just human health standards.</p> <p>The applicant's commitment to monitoring during earth-moving is positive but lacks specific thresholds or actions if elevated dust levels are detected. Effective dust management can include:</p>	<p>Matter agreed subject to consultation on final CEMP</p>

	<p>minimised will certainly be sufficient to prevent significant dust coating of vegetation. It is noted that the Framework CEMP [REP2-011] at Section 9 sets out that one of the main aims of the monitoring regime to be included in the Final CEMP is vegetation protection. Noting the above, and the commitment to consult with Natural England on the effectiveness of any proposed measures (including monitoring) in reducing effects on designated sites (see Table 7-2 of the Framework CEMP [REP2-011]), the Applicant considers this matter to be closed.</p>	<p>Trigger Levels: Specific concentrations at which additional actions (e.g., halting work) are required.</p> <p>Regular Reporting: Transparency with Natural England on dust monitoring results could support confidence in mitigation efficacy.</p> <p>It is noted that the Framework CEMP [REP2- 011] sets out that one of the main aims of the monitoring regime to be included in the Final CEMP is vegetation protection. To be acceptable, this should include monitoring protocols that trigger additional controls or even cessation of work if dust concentrations exceed set thresholds near the SPA/SSSI boundary. Regular reporting of these monitoring results to Natural England would also support transparency and confidence in the mitigation's effectiveness. Natural England would accept the CEMP as mitigation to avoid AEOI from construction dust on the protected sites, as long as the CEMP includes these two aspects. Consultation of the final CEMP to ensure it is acceptable would be required.</p>	
<p><b>NE10:</b> Ammonia Emissions from Vehicles and Acid Deposition  (Matter 1)</p>	<p>1.1.3 The HRA has been amended to address these points alongside the Proposed Change Application - see paragraph 4.2.85 onwards and 4.3.6 onwards.</p> <p>1.1.4 Further details on the assessment of cumulative</p>	<p>The revised HRA concludes that there would be no Likely Significant Impacts from construction traffic on the integrity of the SPA, as the qualifying features (defined as known bird nesting locations) are further than 200m from the roads used by construction (and indeed operational) traffic (para 4.2.89 and Annex G of the revised HRA). Para 4.2.89 also indicates that other construction plant (identified in para 4.2.86) would not be within 200m of avocet or tern nesting sites.</p>	<p>Matter still under discussion</p>

	<p>road traffic emissions impacts using the NAE001 Methodology are included in Annex G of the updated HRA</p>	<p>It is unclear why the supporting habitat of the qualifying bird species within the SPA is excluded at the screening stage of the construction assessment, as the boundary of the SPA is within 200m. It is also unclear why only nesting sites are considered relevant, and not areas used for feeding, for example. The Conservation Objective for the SPA includes the objective “to maintain or restore the structure and function of the habitats of the qualifying features”. This should therefore be considered to be integral to the designation, or evidence provided (within the appropriate assessment) as to why there is no potential for this area and the habitat there to be used (for any purpose) by the qualifying birds. It is most precautionary to assume at the LSE/ screening stage that the qualifying feature is located at the boundary of the site – or could be – and evidence as to why this is not feasible provided in the appropriate assessment. This is especially the case for mobile species such as birds which are not restricted to only known current nest sites.</p> <p>A justification of the inappropriateness of the slag-based dunes nearest to the operational emissions for nesting is undertaken at (for example) section 6.6.5 in the appropriate assessment for operational stack emissions only. This has not included consideration of impacts from the roads/ construction emissions, however, which would be expected to affect a different part of the SPA.</p> <p>As emissions from the roads are not included as a potential source in the assessment, there therefore appears to have been no assessment of ammonia emissions from the roads, as indicated would be carried out in the previous response (road emissions are excluded from the operational assessment - para 4.3.7 – and therefore the operational in combination assessment). As the boundary of the SPA is within 200m of the road, and the conservation objective covers supporting habitat of the qualifying birds, ammonia (and other roadside emissions) should be considered.</p>	
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		<p>We recommend that the updated modelling also reflects worst-case ammonia contributions to nitrogen deposition, ensuring any cumulative impacts are fully accounted for.</p> <p>Justification for use of the 3µg/m<sup>3</sup> critical level for ammonia for the operational assessment is not provided. The SSSI citation indicates there is a mosaic of habitats within the boundary of the SSSI (underpinning the SPA), and bryophytes may be integral to some of these habitats – the citation refers to mosses in some of the wetter dune slacks, for example – which may be considered to be integral to that habitat. Further consideration of the affected habitat types and key species/ ecosystems within them should be made before assigning the “higher plant” critical level.</p> <p>We note the consideration of acid deposition in the assessment and accept that this would not have an adverse impact on integrity on the identified protected sites.</p> <p>As well as the SPA – consideration of the impact on the SSSI should be considered. It is unclear if the main EIA has been amended with the revised modelling results.</p>	
<p><b>NE11:</b> Construction Emissions  (Matter 1)</p>	<p>The locations of tern and avocet nest sites were provided in table 13A-5 of the ornithology baseline report, as supplied by INCA. Further locations were recorded during AECOM surveys and are described in the report narrative, and these map fairly closely to some of the INCA locations.</p>	<p>As indicated previously, Natural England accepts your approach with the recommendation that you outline specific controls on NRMM emissions near the SPA/SSSI boundary within the CEMP, improving transparency and confidence in predicted outcomes.</p> <p>Comments as in NE10 also apply, in that justification should be provided as to why only nesting individuals and not the wider habitat is considered part of the qualifying feature to which the Conservation Objectives apply, and why construction emissions would not cause an adverse effect to this (closer than the location of the known nesting sites). However, this has been undertaken for the operational emission appropriate assessment (e.g. 6.6.5</p>	

	Mapping can be provided to Natural England if considered helpful.	<p>of the revised HRA) so although the AA does not explicitly exclude the potential for AEOL from construction emissions as it stands, in practice we accept that such justification could be made.</p> <p>Please refer to our response on NE17 for further information about little tern nesting locations.</p>	
<p><b>NE12: Sources of Operational Pollutants</b></p> <p>(Matter 1)</p>	<p>The HRA has been amended to address points in relation to traffic as part of the Proposed Change Application [EN070009/EXAM/7.3] see Paragraphs 4.3.6 to 4.3.14 and 6.6.2 to 6.6.9 of the updated Report to Inform HRA [EN070009/APP/5.10] regarding atmospheric pollution. The carbon capture system to be installed on the hydrogen production facility is closed loop, meaning that the amines and associated degradation products are kept in a closed system and not discharged to atmosphere. The amine solution is recycled through a reclaimer system and returned for reuse. This is possible in chemical production processes such as the</p>	<p>We commend the closed-loop approach to the carbon capture process, which inherently limits emissions. However, for clarity, it would be valuable to provide more detail on the handling of maintenance phases and any unplanned events that might lead to temporary releases. We recommend including a diagram that details each input, output, and by-product managed within the closed-loop system. Additionally, contingency planning for venting or emergency emissions during maintenance would provide assurance that the system’s environmental controls are comprehensive and robust.</p> <p>Consideration of waste emissions should also be provided, and whether there is potential for these to impact the integrity of the protected sites.</p> <p>The response refers to “minimal” amine wastes, but it is not clear whether these have been included within the emissions in the AQ assessment, and therefore the HRA (i.e. included in the N deposition calculations) or if it is assumed they would be taken off site for treatment (in which case the impact of this should be considered).</p> <p>Responses have also not been provided on other non-amine wastes or emissions – such as points 5 (chemical storage), 7 (waste from the pre-treatment of natural gas to remove sulphur species) and 8 (emissions from the 4-yearly major overhaul) in our original response. If these are considered for human health, there should be recognition that they have been assessed for ecological receptors too, as the same pathways/ methods of impact may not occur.</p>	<p>Matter still under discussion</p>

	<p>hydrogen production process, but is not possible in, for example, post combustion carbon capture on a power station, since the flue gas from the power station has to eventually be discharged to atmosphere and therefore can carry some amine and amine degradation products entrained in that flue gas. There is therefore no emission of amine and amine degradation products to atmosphere during normal operation. Any amine wastes that could arise are therefore minimal. It is noted that the Air Quality chapter of the ES (APP-060) (whose conclusions are not changed by the updates set out in the Change Application Report [EN070009/EXAM/7.3]) considers all emissions arising from the Proposed Development in the operational phase. While the non-Nitrogen and Acid</p>		
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	<p>deposition figures are only presented for Human Health, they lead to a conclusion of negligible adverse effects. As such, all relevant emissions have been presented to allow for full consideration of effects at this DCO stage. The ES Traffic and Transport Chapter (APP-068) concludes that operational traffic movements are expected to be very low, which given the conclusions in respect of construction, means no likely significant emission related effects to ecological receptors would arise as they are below the screening threshold for further assessment. This includes in relation to periodic maintenance periods.</p>		
<p><b>NE13:</b> Stack Height Determination  (Matter 1)</p>	<p>Following discussions with Natural England this matter is now considered to be concluded.</p>	<p>Agreed</p>	<p>Matter agreed</p>

<p><b>NE15: Approach to HRA (Air Quality)</b>  (Matter 1)</p>	<p>The HRA has been amended to address these points as part of the Proposed Change Application see Paragraphs 4.2.85 to 4.2.90, 4.3.6 to 4.3.14 and 6.6.2 to 6.6.9 of the updated Report to Inform HRA [EN070009/APP/5.10] regarding atmospheric pollution. Further details on the assessment of cumulative road traffic emissions impacts using the NAE001 Methodology are included in Annex G of the updated HRA.</p>	<p>The amended HRA includes the requested summary of relevant habitat types, qualifying features, and their associated critical loads (and critical levels for NO<sub>x</sub>, SO<sub>x</sub>, and ammonia) – i.e. the critical load/ level for the habitat types supporting the qualifying bird species. It should be noted that the lowest critical load for sand dune habitats is 5kgN/ha/yr, not 10kgN/ha/yr – but this would not affect the conclusion of the assessment, or whether LSE was assumed.</p> <p>The use of 1% alone or in combination to assess whether a project requires appropriate assessment aligns with best practices. In this case, the revised assessment has concluded that annual and 24hr NO<sub>x</sub> (alone and in combination) and Ndep (alone and in combination) requires further consideration for the Teesmouth protected sites.</p> <p>24hr NO<sub>x</sub> in-combination also exceeds 1% at North York Moors SPA/SAC, and Northumbria Coast SPA/SAC, and this does not appear to have been carried through to appropriate assessment (section 4.3.14). However, in practice, 24hr impacts would not alter the annual levels which are relevant for ecosystem impacts, so although this should be included in the appropriate assessment for completeness, we will not require this.</p> <p>It is noted that the assessments do not include Ndep (or NO<sub>x</sub> or ammonia) arising from the road traffic, as highlighted at NE10. We also require further clarification on cumulative impacts, particularly concerning nitrogen deposition and its indirect effect on the SPA's nesting habitats. Although terns and avocets may not be directly impacted by nitrogen, deposition can alter vegetation structure, leading to encroachment that could affect nesting suitability. This assessment would benefit from clear distinctions between direct and indirect impacts, addressing cumulative impacts as they relate to overall ecosystem stability.</p>	<p>Matter still under discussion</p>
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<p><b>NE16:</b> Construction Dust Assessment and Monitoring</p> <p>(Matter 1)</p>	<p>Please refer to our response under NE9.</p>	<p>As indicated under our response to NE9 the commitment to monitor construction dust and also extend management and monitoring into the operational and decommissioning stages is supported. To strengthen this approach, we recommend defining specific dust monitoring triggers, such as visible dust layers on nearby vegetation, to ensure that ecological health is actively protected. Additionally, periodic vegetation inspections near sensitive habitats can serve as early indicators of dust impacts, allowing for timely intervention if dust levels approach concerning thresholds. Adaptive management strategies could be particularly useful, ensuring ongoing adjustments based on real-time monitoring data.</p> <p>An adaptive dust management plan, with defined triggers and vegetation inspections, will provide robust protection for ecological receptors during all project phases.</p> <p>Achieving this mitigation through the CEMP/ DEMP is acceptable. This should include monitoring protocols that trigger additional controls or even cessation of work if dust concentrations exceed set thresholds near the SPA/SSSI boundary. Regular reporting of these monitoring results to Natural England would also support transparency and confidence in the mitigation's effectiveness. Natural England would accept the CEMP as mitigation to avoid AEOI from operational/ decommissioning dust on the protected sites, as long as the CEMP includes these two aspects. Consultation of the final CEMP to ensure it is acceptable would be required.</p>	<p>Matter agreed subject to consultation on Final CEMP</p>
<p><b>NE17:</b> Nitrogen Deposition (Ndep)</p> <p>(Matter 1)</p>	<p>The HRA has been amended as part of the Proposed Change Application see Paragraphs 4.3.6 to 4.3.14 and 6.6.2 to 6.6.9 of the updated Report to Inform</p>	<p>We appreciate the historical context provided regarding nitrogen deposition levels and understand that these have gradually declined over time. However, the sensitive habitats within the Teesmouth &amp; Cleveland Coast SSSI remain vulnerable, and even minor increases in nitrogen could delay recovery or encourage invasive vegetation. The sites are currently exceeding their lower critical loads for Ndep for sand dunes (5-15kgN/ha/yr).</p>	<p>Matter not agreed - still under discussion</p>

	<p>HRA [EN070009/APP/5.10] regarding atmospheric pollution. The HRA concludes no AEOI via Atmospheric pollution at Operation.</p> <p>With respect to little tern nesting locations, it is not clear if the plan supplied by Natural England is intended to show only little tern colony locations, or if it shows the locations of other species as well.</p> <p>The Applicant would also draw attention to the extent of the SPA shown on the plan, which appears to be based on the SPA boundary prior to the reclassification of the SPA that was adopted in 2020.</p> <p>If the plan is intended to show only little tern breeding locations, then the Applicant would question the validity some of the records. Little tern breed on open shorelines close to high tide mark.</p>	<p>The designation of the SPA (and SSSI) at a time when N loads were higher does not indicate that the site was in Favourable Conservation Status (FCS) at the time of designation and therefore any lowering of these levels must by definition mean the site will remain Favourable. The Habitats Regulations refer to both the 'maintenance and restoration' of features of European importance as a key part of achieving Favourable Conservation Status. If the Directive was written with the intention of simply maintaining sites in their condition at the time of selection or classification, on the assumption that this would be sufficient to enable FCS to be achieved, then the word 'restoration' would not have been necessary.</p> <p>It is noted that the qualifying features for the SPA are not the same as the SSSI designated features. Therefore, even if the justification that the nesting bird species would not be adversely affected by changes to their supporting habitat within the SPA is appropriate to demonstrate no AEOI to the SPA, consideration must also be given (outside the HRA) to any harm to the SSSI designation. This can take into account the potentially lesser sensitivity of calcareous dunes compared to acidic/ decalcified dunes (for example, by demonstrating phosphorus limitation in the dunes – as outlined in the report underlying the recent change in critical loads (Bobbink et al 2022 - Review and revision of empirical critical loads of nitrogen for Europe<sup>(1)</sup>)) but this evidence must be provided to apply anything other than the most precautionary lowest point of the critical load range.</p> <p>Overall, in-combination impacts, from this project in-combination with other projects in the area have the potential to undermine the conservation Objective to Restore the site below critical loads.</p> <p>Please provide clarification on cumulative nitrogen sources and confirm that even minor increases will not hinder habitat recovery efforts within the SPA/SSSI.</p>	
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	<p>Some of the locations shown in Natural England's plan include inland areas such as Brinefields and Saltholme RSPB Reserve Pools north of the River Tees, where common tern and avocet are known to breed but there are no reliable records of breeding little tern, and where breeding habitats for this species are not found. It is also noted that, while in theory Coatham Sands provides suitable breeding habitat, the breeding site provided by Natural England at this location may be an error.</p> <p>The majority of publicly available historic breeding records for little tern are available from INCA, who were involved in the monitoring of little tern nests across Teesside and the publication of reports setting out historic and current breeding records (e.g. Bell and Leakey, 2019). None of those</p>	<p><sup>ii</sup>  <a href="https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2022-10-12_texte_110-2022_review_revision_empirical_critical_loads.pdf">https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2022-10-12_texte_110-2022_review_revision_empirical_critical_loads.pdf</a></p> <p>With respect to little tern breeding locations we can confirm that the maps provided by Natural England show nesting locations for this species. They were produced in 2013 before the SSSI/SPA/Ramsar extensions.</p> <p>In the UK, the majority of Little Tern nest sites are on the open coast, but they also use a range of other habitats e.g. coastal lagoons (such as at Hodbarrow in Cumbria). Little Tern regularly use a wide range of different nesting habitats in continental Europe, with large populations nesting away from the coast. The maps provided by Natural England show some historic 'inland' nesting locations. The local bird clubs (Durham / Teesmouth) may hold more details about these attempts. The Birds of Durham (Bowey &amp; Newsome 2012) provides some further background to Little Tern use of the estuary e.g. use of a derelict shipyard in the 1920s (this is not plotted on the Natural England maps). There is considerable variation in how regularly the different nest sites have been used and how many birds used them and it is expected that this context would be used in an assessment of impacts on Little Terns, however, it is not correct to say that the maps show locations where there are no reliable records of breeding Little Tern, and where breeding habitats for this species are not found.</p> <p>Little Tern are notorious for regularly shifting colony locations and their unpredictability in site selection, therefore linking an assessment to a single location on Teesmouth would not be appropriate e.g. the main Teesmouth Little Tern colony recently moved from Crimdon to Seaton Carew. The scatter of nest locations along the coast (from Crimdon to Coatham Sands) shows that this whole stretch should be considered as potential Little Tern nesting habitat. There have been morphological changes on Coatham Sands which have altered the previous nesting area (an area known as 'the Ducky'), but this does not mean that the whole stretch is unsuitable for Little Tern e.g. small numbers have nested on South Gare in recent years.</p>	
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	<p>reports include records of breeding anywhere across Coatham Sands since around 1995, and this has been confirmed in recent correspondence with INCA. The baseline reported submitted by the Applicant was based on data from BTO WeBS, INCA and RSPB, none of which identified nesting at Coatham Sands or at any inland locations</p> <p>Furthermore, studies commissioned by Natural England to inform the updates made to the extent of the SPA that were adopted in 2020 included the determination of foraging ranges from nest sites for terns, including little tern. This included shore and boat-based monitoring of tern activity based upon the identification of active nest sites. That study was based on the location of the breeding colony at Crimdon Dene and the</p>		
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	<p>Departmental Brief for the reclassification of the SPA states “Virtually all breeding birds are currently located at Crimdon Dene, north of Hartlepool. The feeding grounds of the little terns that nest at Crimdon Dene lie predominantly in marine areas within 5 km alongshore of the colony and within 3.5 km offshore” (Natural England, 2018).</p> <p>Taking all of the above into account the cumulative evidence base is contrary to some of Natural England’s suggested breeding locations for little tern, including at Coatham Sands and these were clearly not the basis for the delineation of the SPA boundary in its current form. However, regardless of any of the narrative provided above, the Applicant does not regard breeding records from 2005 as sufficiently</p>		
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	contemporary to inform a robust impact assessment or HRA..		
<b>NE18:</b> Operational Emission of Amine and Amine Degradation Products  (Matter 1)	No response in D3 HRA written response table Doc ref 8.15	D3 comments from the applicant on NE18 relate to water quality rather than air quality. Therefore, we have no further comments on this and our position remains as in our relevant representations, and as for NE12. As far as we are aware, the requested diagram showing inputs/ outputs/ wastes etc. has not been provided, and there have been no comments on emissions and associated impacts during maintenance.	Matter still under discussion
<b>NE20:</b> Water Quality and Nutrient Neutrality  (Matter 7)	No response in D3 HRA written response table Doc ref 8.15	NE accept that in Case 2B the Water Quality Modelling Report shows that inputs from the proposed development, and in combination with the adjacent NZT development, are not sufficient to cause an increase in DIN such that would adversely impact condition of the Tees transitional waterbody, or the Tees Bay.	Matter agreed
<b>NE21:</b> Water Quality and EIA Evidence Base  (Matter 2?)	No response in D3 HRA written response table Doc ref 8.15	Matter agreed at Written Reps – No specific mitigation required (clarification of methodology/approach re site condition)	Matter agreed
<b>NE22:</b> Water Quality Surface Water Runoff Impacts  (Matter 2?)	No response in D3 HRA written response table Doc ref 8.15	Matter agreed at Written Reps – Requirement covering fCEMP addresses this theme.	Matter agreed
<b>NE23:</b> Water Quality	No response in D3 HRA written response table Doc ref 8.15	NE accept that the modelling includes the impact of the discharge plus the combined discharge of process effluence and surface water. Therefore the	Matter agreed

<p>Discharged Effluent</p> <p>(Matter 2?)</p>		<p>modelling shows that the combined effluent discharge does not change whether the nutrients end up in the Tees estuary.</p>	
<p><b>NE24:</b> Impact of Acid Deposition</p> <p>(Matter 4)</p>	<p>The HRA has been amended to address this point as part of the Proposed Change Application see Paragraphs 4.3.13 to 4.3.15 of the updated Report to Inform HRA [EN070009/APP/5.10] regarding acid deposition. 1.1.5 While the ‘in combination’ impact on North York Moors SAC/SPA exceeds 1% of the critical load, the contribution of H2T is less than 0.001 i.e. effectively zero. As such it is considered reasonable to dismiss the contribution of H2T to the modelled in combination impact as imperceptible.</p>	<p>NE accepts that the modelled deposition does not represent a significant effect.</p>	<p>Matter agreed.</p>
<p><b>NE25:</b> Impact of Nitrogen Deposition on Qualifying Species</p>	<p>Noted, the Applicant welcomes agreement with Natural England on this issue.</p>	<p>Matter agreed at Written Reps</p>	<p>Matter agreed</p>

<p><b>NE27:</b> River Tweed SAC and Tweed Estuary SAC Impact on Atlantic Salmon and Sea Lamprey (as per your email on 16 October)</p>	<p>No response in D3 HRA written response table Doc ref 8.15</p>	<p>Matter agreed at Written Reps – Lighting Strategy element of mitigation addresses original queries</p>	<p>Matter agreed</p>
<p><b>NE28:</b> Consideration of ammonia and acid deposition in the traffic assessment</p>	<p>No response in D3 HRA written response table Doc ref 8.15  But see NE10</p>	<p>As outlined in NE10, it is not clear why only known nesting sites are considered to be the qualifying feature, rather than e.g. supporting habitat of the birds. In any case, NE28 is relating to impacts on the SSSI which is designated directly for the sand dune habitat as well as the birds. Therefore our position remains largely as stated in the Relevant Representations, and we maintain that construction and operational traffic impacts to the SSSI (within its boundary) should be considered, including ammonia – as had been understood to have been agreed with the applicant in our D2 response.</p>	<p>Matter still under discussion</p>
<p><b>NE29:</b> Scope of Pollutants considered in the construction and operational assessments</p>	<p>No response in D3 HRA written response table Doc ref 8.15  But check NE12</p>	<p>Similar responses would apply to those at NE11, and other responses relating to the European sites. However, it should be noted that designated features of the SSSIs are different to the SPA qualifying features, and therefore different impacts may be relevant.</p>	
<p><b>NE31:</b> Impact of Pollutants at SSSIs Including SSSIs Underlying European Designation</p>	<p>The HRA has been amended as part of the Proposed Change Application see Paragraphs 4.3.6 to 4.3.14 and 6.6.2 to 6.6.9 of the updated Report to Inform</p>	<p>Please refer to our response under NE17</p>	<p>Matter still under discussion</p>



	<p>HRA [EN070009/APP/5.10] regarding atmospheric pollution. The Change Application report [EN070009/EXAM/7.3] concludes that no likely significant effect will arise on Teesmouth &amp; Cleveland Coast SSSI, based on the small contribution of the proposed project, the fact that nitrogen deposition is modelled to remain below historic levels (thus denoting a net improvement even when cumulative deposition is considered), and the fact that much of the dune interest developed when pollution levels were higher than at present.</p>		
<p><b>NE32:</b> Bat Survey Effort</p>	<p>Document ref 8.16 refers</p>	<p>Natural England accept further confirmation of the low roosting suitability of the aforementioned boundary trees. Please ensure that any precautionary felling of trees is conducted at an appropriate time of year avoiding hibernation and maternity periods.</p> <p>Note - Natural England's comments with respect to bats and water voles have been made based on our assessment of the relevant detail and information within the documents submitted to us to date for review. However, Natural England's Wildlife Licensing Service (NEWLS) has not been provided with finalised protected species surveys nor draft licence applications, hence we have not provided nor been asked to provide Letters of Impediment in relation to</p>	<p>Matter agreed</p>

		<p>licensable species for the scheme. Should the applicant wish to secure Letters of No Impediment from NEWLS to support the NSIP submission to PINS, then we would encourage them to contact us as soon as possible</p>	
<b>NE33: Water Vole Survey Effort</b>	Document ref 8.16 refers	<p>Natural England find this approach acceptable and have no further comments on the water vole survey effort.</p> <p>Note - Natural England's comments with respect to bats and water voles have been made based on our assessment of the relevant detail and information within the documents submitted to us to date for review. However, Natural England's Wildlife Licensing Service (NEWLS) has not been provided with finalised protected species surveys nor draft licence applications, hence we have not provided nor been asked to provide Letters of Impediment in relation to licensable species for the scheme. Should the applicant wish to secure Letters of No Impediment from NEWLS to support the NSIP submission to PINS, then we would encourage them to contact us as soon as possible</p>	Matter agreed
<b>NE34: BNG Update</b>	Document ref 8.16 refers	<p>Although BNG is not yet a mandatory requirement for NSIPs, we strongly recommend that BNG provision is secured through this development. This will reflect the important role NSIPs must play in delivering the government's environmental targets.</p> <p>Early engagement with Natural England on BNG proposals will help maximise outcomes and reduce risks.</p> <p>The biodiversity baseline should include all land contained within the site's red line boundary and proposals can be iteratively refined over time and throughout detailed design.</p> <p>We encourage developers to:</p> <ul style="list-style-type: none"> <li>develop their BNG proposals in adherence with well-established BNG principles</li> <li>use the latest version of the Defra biodiversity metric, adhering to the metric guidance</li> </ul>	Matter still under discussion

		<p>Biodiversity gains should ideally be secured for a minimum of 30 years and be subject to adaptive management and monitoring. BNG plans should be secured by a suitably worded requirement in the DCO.</p>	
<p><b>NE35:</b> Soils and Best and Most Versatile Agricultural Land</p>	<p>Document ref 8.16 refers</p>	<p>Natural England’s position remains that an Agricultural Land Classification (ALC) survey should be undertaken for all areas of agricultural land subject to temporary and permanent loss, in which Post-1988 ALC survey information is not available.</p> <p>In the absence of a detailed, site-specific soil and ALC survey in the Environmental Statement (ES) and assuming that all mapped ALC Grade 3 land is BMV (i.e. Subgrade 3a), it is impossible to provide an accurate baseline and demonstrate the likely potential impacts. So, whilst this may make the mitigation precautionary, it means that the project is unable to show how it avoids impacts to BMV soils nor the design of potential mitigation to safeguard the soil resources.</p> <p>A detailed ALC survey can also inform soil handling and restoration criteria, with BMV land to be returned to the same quality as far as reasonably practicable to minimise BMV losses and limit permanent impacts</p> <p>Natural England welcomes the commitment to prepare a Soil Management Plan (SMP) in the Framework CEMP submitted at Deadline 3 [EN070009/ APP/5.12]. However, it would be expected an Outline SMP is prepared at this stage which will draw on the Defra Construction Code as a source of key guidance and confirms that detailed Soil Resources Plans will be produced by the Contractor for each part of the H2 Teesside project in line with the Defra Code. The OSMP needs to be clear that the aim is for BMV agricultural land to be returned to its original quality and all soils to be suitable for the planned end use. For example,</p>	<p>Matter not agreed - still under discussion</p>

		<p>this could be actioned by a target specification for the restored soils according to location and soil types, end use and required ALC grade.</p> <p>It is expected that soil data collected as part of the ALC surveys will be re-used to develop the Soil Resources Plans. This soil data should be supplemented, where necessary, to provide coverage for all soils including those in non-agricultural use. There should be least one soil observation per ha for all soils. Where information on soil nutrients has not already been collected, this should also be carried out.</p> <p>The SMP should be informed by site-specific soil information, and include detail including (but not limited to):</p> <ul style="list-style-type: none"><li>For the area of permanent development, the SMP should demonstrate the sustainable, beneficial soil re-use of potential surplus soil resources.</li><li>Plans of the detailed ALC grades should be produced to inform restoration and allow confirmation that the current baseline across the Site has been restored.</li><li>The SMP 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.</li><li>In the absence of an ALC survey, the EIA baseline cannot be ascertained; precise soil stripping and storage requirements cannot be determined, and restoration cannot be assured.</li></ul>	
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<p><b>NE36:</b> Other Valuable and</p>	<p>Document ref 8.16 refers</p>	<p>Natural England notes the applicant's D2 and D3 responses.</p>	<p>Matter agreed</p>

Sensitive Habitats, Species, Landscapes, and Access Routes			
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