Date: 02 April 2025
Our ref: 502398
Your ref: **EN0710005**

Consultations
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 900

The Planning Inspectorate
h2ne@planninginspectorate.gov.uk

For the attention of Jack Patten

BY EMAIL ONLY

Dear Sir,

Environmental Impact Assessment Scoping Consultation under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulation 11

Proposal: Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) – Regulations 10 and 11 - Application by H2NorthEast Limited (the applicant) for an Order granting Development Consent for H2NorthEast (the proposed development) - Scoping consultation and notification of the applicant's contact details and duty to make available information to the applicant if requested

Location: The project (main site) is to be located adjacent to Seal Sands, with the entire project lying within the administrative boundary of Stockton Borough Council and Redcar and Cleveland Borough Council.

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 11 February 2025, received on the same date. We are sorry for the delay responding.

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.

A robust assessment of environmental impacts and opportunities, based on relevant and up to date environmental information, should be undertaken prior to an application for a Development Consent Order (DCO). Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development.

Natural England is engaged in ongoing pre-application dialogue with the applicant's consultant team ('the applicant'). Our dialogue thus far has included the scope of ecological surveys, ground investigation works and Biodiversity Net Gain. We acknowledge and welcome the applicant's clear reference to the preliminary status of the order limits (Section 2.2.15-16) and reference to application of the 'Rochdale Envelope' principle accordingly (6.9.60)

In terms of the use of novel technologies in the design of this Scheme Natural England refers the Inspectorate to the Department of Energy Security and Net Zero commissioned project 'Environmental Capacity for Industrial Clusters2'[1]. The scope of this project is relevant to the air quality, water quality and water resources themes needing assessment as part of EIA.

Detailed advice on scoping the Environmental Statement is available in the attached Annex.

For any further advice on this consultation please contact the case officer [redacted] and copy to consultations@naturalengland.org.uk.

Yours faithfully

Northumbria Area Team

[1] https://www.gov.uk/government/publications/environmental-capacity-for-industrial-clusters

Annex A – Natural England's Advice on EIA Scoping

1. General principles

Regulation 11 of the Infrastructure Planning Regulations 2017 - (The EIA Regulations) sets out the information that should be included in an ES to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Appropriately scaled and referenced plans which clearly show the information and features associated with the development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects and matters requested to be scoped out of further assessment with adequate justification provided[2].
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- An outline of the structure of the proposed ES

2. Cumulative and in-combination effects

Due to the number of developments recently approved or under consideration within the wider Teesside industrial cluster, Natural England has identified that scope exists for the construction phases of multiple schemes to occur concurrently – 'Temporal overlap'. In this scenario residual impacts (impacts remaining after mitigation measures are applied) from different schemes may accumulate in such a way as to represent an adverse effect in terms of the SPA's conservation objectives. For example the unmitigable disturbance arising from one scheme, when experienced by SPA birds subject to similar disturbance from a preceding or subsequent project may overlap and act to cause extended disturbance impacts to the species. In order to minimise the scope for such 'residual' impacts from e.g. noise and visual disturbance to SPA bird species, relevant mitigation measures for each scheme should aim to fully mitigate the project's effects (alone).

[2] National Infrastructure Planning Advice Note Seven, Environmental Impact Assessment, Process, Preliminary Environmental Information and Environmental Statements (see Insert 2 – information to be provided with a scoping request)

The following table lists those development projects Natural England is aware of. Further outline information on each project is set out at Appendix 'A' in the form of information provided for the H2Teesside NSIP, together with a Gantt Chart illustrating the 'temporal overlap' involving a number of the schemes.

Table 1: Plans or projects that Natural England is aware of that might need to be considered in the ES	
Project/Plan	**Status**
Tees Combined Cycle Power Plant – EN010082	Decided
Net Zero Teesside – EN010013	Decided
Dogger Bank B - EN010051	Decided
Lighthouse Green Fuels – EN010105	Pre-application
Peak Resources Ltd - R/2017/0876/FFM	Approved
Grangetown Prairie Energy Recovery Facility and associated development - R/2019/0767/OOM	Outline approval
Plastic conversion facility at former Croda Site, Wilton (Redcar) - R/2019/0031/FFM	Approved
York Potash Polyhalite Mine - R/2014/0627/FFM	Approved
Residential development of 1250 homes - R/2014/0372/OOM	Outline approval
Decommissioning and construction of industrial work - R/2020/0357/OOM	Outline approval
Development of a container terminal - R/2006/0433/OOM	Outline approval
39,353 sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking, works to watercourse including realignment and associated infrastructure works. All matters reserved - R/2020/0819/ESM	Outline approval
Outline planning application for development of up to 92,903sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated development - R/2020/0820/ESM	Outline approval
Outline planning application for development of up to 464,515sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated development – R/2020/0821/ESM	Outline approval
Outline planning application for development of up to 185,806sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated development -	Outline approval
Outline planning application for development of up to 15,794sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated development -	Outline approval

Table 1: Plans or projects that Natural England is aware of that might need to be considered in the ES	
Project/Plan	**Status**
R/2020/0823/ESM	
Tees Valley Joint Minerals and Waste Development - MWP8 South Tees Eco Park	Development Plan
1400 dwellings and 750sqm non-residential floorspace - H/2022/0181	Pending
Outline application with all matters reserved for residential development comprising up to 1,200 dwellings of up to two and a half storeys in height and including a new distributor road, local centre, primary school, amenity open space and structure planting – H/2014/0428	Outline approval
Carbon capture facility for energy from waste site - 23/0090/EIS	Pending
500 houses and facilities (in doctors, nursery and schools) - 13/0342/EIS	Outline approval
Residential and facilities (employment and healthcare facilities, retail and landscaping) - 08/3644/EIS	Outline approval
Development of new quay - R/2020/0685/ESM	Approved
Lithium Hydroxide Monohydrate manufacturing plant - R/2022/0773/ESM	Approved
Mineral granulation and storage facility - R/2023/0291/ESM	Approved
Energy Recovery Facility - 22/1525/EIS	Approved
Renewable fuels and circular products facility - 23/1019/EIS	Approved
Hydrogen project - R/2023/0179/SCP	Scoping opinion
Green Hydrogen Production Facility and Wind Turbine - 22/2386/SOR	Scoping opinion
Energy from waste facility and associated buildings - 13/2892/EIS	Approved

3. Environmental data

Natural England has an ongoing working relationship with the applicant and welcomes discussion of any locally specific datasets that may be relevant to the project.
Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at http://www.naturalengland.org.uk/publications/data/default.aspx.

Detailed information on the natural environment is available at www.magic.gov.uk. This includes Marine Conservation Zone GIS shapefiles.

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local Wildlife Trust, local geo-conservation group or other recording society.

4. Biodiversity and geodiversity

The assessment will need to include potential impacts of the proposal upon sites and features of nature conservation interest as well as opportunities for nature recovery through biodiversity net gain (BNG). There might also be strategic approaches to take into account.

Ecological Impact Assessment (EcIA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. Guidelines and an EcIA checklist have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

5. Designated nature conservation sites

5.1. International and European sites

The development site is within or may impact on the following **European/internationally designated nature conservation site(s):**

- Teesmouth and Cleveland Coast SPA/ Ramsar
- North York Moors SPA/ SAC
- Northumbria Coast SPA/Ramsar
- Castle Eden Dene SAC
- Durham Coast SAC

The ES should thoroughly assess the potential for the proposal to affect internationally designated sites of nature conservation importance / European sites, including marine sites where relevant. This includes Special Protection Areas (SPA), Special Areas of Conservation (SAC), listed Ramsar sites, candidate SAC and proposed SPA.

Article 6 (3) of the Habitats Directive requires an appropriate assessment where a plan or project is likely to have a significant effect upon a European Site, either individually or in combination with other plans or projects.

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites

Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
Teesmouth and Cleveland Coast SPA/ Ramsar	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern	**Direct and indirect habitat loss within the designated site** The project involves crossing the River Tees, which lies within the Teesmouth and Cleveland Coast SPA/ Ramsar/ SSSI. The project therefore has the potential to result in direct habitat losses within the designated site, in additional to indirect losses from degradation of habitats during

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites		
Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
	(Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa totanus totanus)	construction (e.g. vibration, HDD tunnel collapse, working areas during construction etc). We note that the method of crossing the River Tees is not yet confirmed, but the Applicant's preferred option is to utilise existing infrastructure. Natural England advises that direct habitat losses should be avoided in the first instance, and that if existing infrastructure can be utilised to avoid habitat loss (and disturbance to SPA birds from prolonged construction activities) then this should be adopted. All impacts on the designated site from the River Tees Crossing should be assessed with the HRA for the SPA/ Ramsar site and the SSSI assessment for the SSSI interest features.
Teesmouth and Cleveland Coast SPA/ Ramsar	Named SPA species (breeding): Little Tern (Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), and Ramsar Site habitats – sand and mudflats, saltmarsh, and freshwater/coastal marsh	**Air quality impacts** Construction phase – traffic, dust, construction machinery (including generators, NRMM, plant equipment) Operational air quality We note and welcome the use of Rochdale Envelope principles (Section 3.1) and welcome the use of 1ug/m3 ammonia concentration threshold (Table 6.2 Critical levels for vegetation and ecosystems) accordingly.
Teesmouth and Cleveland Coast SPA/ Ramsar	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern (Sterna	**Water quality impacts – construction, operational and decommissioning** The proposed development has the potential to result in water quality impacts on the designated sites through discharges from the proposed development, either directly or indirectly into designated sites. This may be in the form of wastewater, effluent or surface water. We advise that all discharges from the site are assessed for their potential to

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites		
Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
	albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa totanus totanus) Sand and mudflats, saltmarsh, freshwater/coastal marsh and sand dune habitats	result in water quality impacts on designated sites. This should include impacts associated with pollutants to be discharged during operation, temperature changes and impacts from contaminants from surface water. Details on how contamination from construction activities, maintenance and repair works and decommissioning activities should also be provided. **Water Quality – Nutrient Impacts** The Teesmouth and Cleveland Coast SPA/Ramsar is subject to Natural England's advice on elevated nutrient levels. See here for further information: Strategic Solutions: Nutrient Neutrality. As a result, the applicant should assess the potential for additional Total Nitrogen to be discharged to the catchment of the River Tees, directly or indirectly by the proposed development. Natural England is currently finalising guidance for industrial developers on how to calculate and assess the potential for nutrient impacts. Although this is not yet published, we welcome direct discussions with the applicant to advise on this matter.
Teesmouth and Cleveland Coast SPA/ Ramsar	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern (Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa	**Novel pollutants from carbon capture technology** **Air and water – operation phase** Natural England notes that the proposed carbon capture system is to use an amine solvent to capture the carbon, and that this will be a 'closed loop' system. Amine solvents are a potential source of nitrogen if they are released into the atmosphere by air or water, and may contribute to the degradation/ damage of designated site features. Sufficient information should therefore be provided on the carbon capture system, how it is closed loop and how the release of amines will be prevented, both in normal operating conditions and during maintenance/ repair activities. This information is required for the Habitat Regulations Assessment for air and water quality impacts on SPA features, and for the SSSI assessment. We advise that this impact pathway is scoped in to the ES.

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites		
Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
	totanus totanus) Sand and mudflats, saltmarsh, freshwater/coastal marsh and sand dune habitats	
Teesmouth and Cleveland Coast SPA/ Ramsar	Named SPA species (breeding): Little Tern (Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), and Ramsar Site habitats – sand and mudflats, saltmarsh, and freshwater/coastal marsh	**Novel pollutants from carbon capture technology Air – operation phase** Natural England notes that the proposed carbon capture system is to use an amine solvent to capture the carbon, and that this will be a 'closed loop' system. Amine solvents are a potential source of nitrogen if they are released into the atmosphere by air or water, and may contribute to the degradation/ damage of designated site features. Sufficient information should therefore be provided on the carbon capture system, how it is closed loop and how the release of amines will be prevented, both in normal operating conditions and during maintenance/ repair activities. This information is required for the Habitat Regulations Assessment for air quality impacts on SAC features, SPA supporting features and for the SSSI assessment.
Teesmouth & Cleveland Coast SPA	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern (Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet	**Loss of functionally linked land (temporary and permanent) (construction, operation and decommissioning)** The proposed development has the potential to result in impacts on SPA bird populations through the permanent and temporary direct loss of functionally linked land within the DCO order limit. This is land outside of the boundary of the designated site which SPA birds use for essential behaviours such as foraging, roosting and loafing. Functionally linked land outside of the order limit may also be indirectly impacted and become unsuitable for SPA bird use due to loss of open vistas, noise and visual disturbance and degradation due to air and water pollution.

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites		
Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
	(Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa totanus totanus)	We advise that an assessment of all impacts on functionally linked land (direct loss, indirect loss and disturbance) is scoped into the ES and HRA. We advise that functionally linked land within and adjacent to the DCO order limits is identified through non-breeding bird surveys. All areas of functionally linked land should be mapped, and where possible the function of the habitat for SPA birds identified (i.e. roosting or foraging habitat). Where there are to be losses of functionally linked land this should be quantified and assessed for both temporary and permanent losses across the development site as a whole, due to the large scale of the project. Where losses of functionally linked land are identified to be temporary (e.g. during the pipeline construction phase) details should be provided on the time of year when the land will be unavailable for birds, the function it provides and the period of time for reinstatement. Where possible works should be phased so temporary losses of functionally linked land occur outside of the wintering period. We note that the Applicant has committed to undertaking wintering bird surveys using a transect methodology. We recommend consideration of using 'amended' vantage point (VP) surveys (principally following NatureScot Recommended bird survey methods to inform impact assessment of onshore wind Farms guidance March 2017 v.2. Natural England recognise that the NatureScot VP guidance is written for impacts associated with wind turbines, but it is acknowledged in the guidance (page 14) that VP surveys provides useful information and overview of bird usage of a site specifically in relation to potential disturbance and displacement. Natural England considers the use of the NatureScot guidance for VP as an appropriate methodology to be used to assess other developments that can impact on SPA birds). The surveys should cover different tidal states and consideration should also be given to surveys in poor weather/ visibility conditions as large movements of birds can be observed at this time. Vantage point surveys may also need to take account of surveys at dusk and dawn, depending upon the

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites		
Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
		bird species. Noting the extensive scale of the order limits and areas to be surveyed we would advise that mapping bird sightings rather that aggregating or grouping will serve to inform more reliable impact assessment.
Teesmouth and Cleveland Coast SPA/ Ramsar	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern (Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa totanus totanus)	**Noise and visual disturbance (construction, operation and decommissioning) - both within the SPA and functionally linked land** Applicants are advised to undertake modelling to establish any zones of potential bird displacement. NE advise that this is a minimum evidence requirement. To inform an in-combination assessment, where data is limited, Applicants are advised to provide this modelling using reasonable assumptions about other projects in scope, including the length of time that each project may produce noise. Modelling should be presented in map form, inclusive of the following data: • Noise contours using the relevant noise metric. This data should be presented with and without noise-reduction measures. • Marked buffer distances to account for bird sightlines. This data should be presented with and without screening measures. • Bird count data at SPA sector level expressed as a percentage of the total SPA population. • Habitat function. • The red line boundaries of all projects in scope.
Teesmouth and Cleveland Coast SPA/ Ramsar	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern (Sterna albifrons),	**Loss of sightlines (operation)** The proposed development includes the building of infrastructure near habitats which SPA birds use, both within and outside of the designated site. This includes a flare of 110m in height. The presence of large, infrastructure close to bird habitat can result in a negative impacts on waterbirds ranging from increased vigilance when using the habitats and increased predation risk to direct avoidance of habitats. We advise

Table 2: Potential risk to international designated sites: the development is within or may impact on the following sites		
Site name with link to conservation objective	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
	Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa totanus totanus)	that this impact pathway is scoped into the ES and assessed.
Teesmouth and Cleveland Coast SPA/ Ramsar	Over-wintering/passage waterbirds and breeding sea birds – including named spp. Little Tern (Sterna albifrons), Sandwich Tern (Sterna sandvicensis), Avocet (Recurvirostra avosetta), Knot (Calidris canutus islandica), Redshank (Tringa totanus totanus)	**In combination assessment** Please see comments on pages 2-4 and refer to Appendix A - Gantt Chart and table from H2Teesside examination.
Castle Eden Dene SAC	H19J0 - Yew dominated woodland	**Air quality impacts – operational phase** The Site Improvement Plan for this SAC notes the need to 'control, reduce and ameliorate atmospheric nitrogen impacts'. Link here - https://publications.naturalengland.org.uk/publication/5362023844020224

5.2. Nationally designated sites – Sites of Special Scientific Interest

Sites of Special Scientific Interest are protected under the Wildlife and Countryside Act 1981 (as amended). Further information on the SSSI and its special interest features can be found at www.magic.gov.uk.

Natural England's SSSI Impact Risk Zones can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

The development site is within or may impact on a number of **Site of Special Scientific Interests (SSSI).** These are listed below, with a link to their citation.

The ES should include a full assessment of the direct and indirect effects of the development on the features of special interest within the below listed SSSIs and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects. We have set out specific impact pathways by feature for the Teesmouth and Cleveland Coast SSSI in a second table.

Table 3 - SSSI site names with link to citation
Teesmouth and Cleveland Coast SSSI (Inc Teesmouth National Nature Reserve NNR) https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000255&SiteName=Durham%20Coast&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Lovell Hill Pools SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S2000387&SiteName=Lovell%20Hill%20Pools&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Briarcroft pasture SSSI https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=Briarcroft%20pasture&countyCode=&responsiblePerson=&DesignationType=SSSI
Roseberry Topping SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000120&SiteName=Roseberry%20topping&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
North York Moors SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S2000356&SiteName=North%20York%20Moors&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Saltburn Gill SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000289&SiteName=Saltburn%20Gill&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Whitton Bridge Pasture SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S2000474&SiteName=Whitton%20Bridge%20pasture&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

Langbaurgh Ridge SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000256&SiteName=Langbaurgh%20&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Cliff Ridge SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1003961&SiteName=Cliff%20Ridge%20&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Durham Coast SSSI (Inc Durham Coast NNR) https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000255&SiteName=Durham%20Coast&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Hart Bog SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000052&SiteName=Hart%20bog&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Pike Whin Bog SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000785&SiteName=Pike%20Whin%20bog&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Kildale Hall SSSI https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=Kildale%20Hall&countyCode=&responsiblePerson=&DesignationType=SSSI
Hulam Fen SSSI https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=Kildale%20Hall&countyCode=&responsiblePerson=&DesignationType=SSSI
Castle Eden Dene SSSI (inc Castle Eden Dene NNR) https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000738&SiteName=Castle%20Eden%20Dene&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Pinkney and Gerrick Woods SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000085&SiteName=Pinkney%20and%20Gerrick&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Fishburn Grassland SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1006457&SiteName=Fishburn%20grassland&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Charity Land SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S2000338&SiteName=Charity%20Land&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Newton Ketton Meadow SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1005078&SiteName=Newton%20Ketton&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
Boulby Quarries SSSI https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000219&SiteName=Boulby%20Quarries&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

Although the proposed development could impact on numerous special interest features of the above listed SSSIs, due to its proximity the Teesmouth and Cleveland Coast SSSI is at higher risk of impacts. Therefore, we have set out below some of the most relevant potential impact pathways from the proposed development to this SSSI. We have not listed all the potential impact pathways to all the special interest features of the abovementioned SSSIs for brevity, but we expect the applicant to consider them in full.

Table4: Potential risks to Teesmouth and Cleveland Coast SSSI		
Site name with link to citation	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
Teesmouth and Cleveland Coast (see citation and details here)	Sand dunes and saltmarshes And; A diverse assemblage of invertebrates associated with sand dunes.	**Air quality impacts** Construction phase/Decommissioning – traffic, dust, construction machinery (including generators, NRMM, plant equipment) Operational phase – traffic, process emissions, other predictable emissions related to the operation of the project See detailed note below, titled *Assessment of Air Quality Impacts to SSSI Sand Dune Habitat* for further advice.
Teesmouth and Cleveland Coast	Breeding harbour seals Phoca vitulina;	**Noise and Visual Disturbance** Construction/Decommissioning phase and operation phase. Please refer to Section 5.5 below and note that Natural England advises that M-weighted estimates are used as part of modelling to assess the effect of noise on marine mammals. **Changes in Water Quality** Construction/Decommissioning phase and operation phase
Teesmouth and Cleveland Coast	Breeding avocet *Recurvirostra avosetta*, little tern *Sternula albifrons* and common tern *Sterna hirundo;* And; A diverse assemblage of breeding birds of sand dunes, saltmarsh and lowland open waters and their margins (as well as the specifically named breeding species in the citation)	**Noise and Visual Disturbance** Construction/Decommissioning phase and operation phase See detailed note below, *5.4 Assessment of Disturbance Impacts to SPA/Ramsar/SSSI Birds,* for further advice. **Changes in Water Quality (foraging/food resources)** Construction/Decommissioning phase and operation phase
Teesmouth and	Non-breeding shelduck *Tadorna tadorna*, shoveler *Spatula clypeata*, gadwall	**Noise and Visual Disturbance** Construction/Decommissioning phase and operation phase

Table4: Potential risks to Teesmouth and Cleveland Coast SSSI		
Site name with link to citation	**Features which the ES will need to consider**	**Potential impact pathways where further information/assessment is required**
Cleveland Coast	*Mareca strepera*, ringed plover *Charadrius hiaticula*, knot *Calidris canutus,* ruff *Calidris pugnax*, sanderling *Calidris alba*, purple sandpiper *Calidris maritima*, redshank *Tringa totanus* and Sandwich tern *Thalasseus sandvicensis*; And; An assemblage of more than 20,000 waterbirds during the non-breeding season	See detailed note below, titled *Assessment of Disturbance Impacts to SPA/Ramsar/SSSI Birds,* for further advice. **Changes in Water Quality (foraging/food resources)** Construction/Decommissioning phase and operation phase

5.3. **Assessment of Air Quality Impacts to SSSI Sand Dune Habitat**

Background
Coastal dune grassland habitats (grey dunes) generally occur on stable dunes and have a high species diversity, as well as many characteristic plant and animal species. They are sensitive to nitrogen deposition (Ndep) arising from air pollution. Changes to the community as a result of Ndep include encroachment of grasses and denser vegetation, outcompeting and overshading more nitrogen sensitive forb and lichen species, and as a result a reduction in the habitat diversity. There can also be increased N leaching from the habitat, and soil acidification.

Historically, there has been lower a critical load for acidic dune grasslands than for calcareous dune grasslands, and the latter understood to be less sensitive to small additions of nitrogen at low levels of background deposition. However, a Europe-wide review of critical loads for all habitat types was undertaken in 2022 (Bobbink et al 2022[2]) reflecting emerging evidence of nitrogen impacts on habitats since the last revision in 2011. This identified evidence of ecological changes in both calcareous and acidic dunes at the lower end of the range. Therefore, the range for class N15 (coastal dune grasslands) was revised to 5-15kgN/ha/yr (from 8-15kgN/ha/yr), and this applies to both acidic and calcareous dunes.

However, there is evidence that phosphorus limitation can result in a higher critical load range. This is because phosphorus rather than nitrogen limits plant growth – so an increase in nitrogen does not result in the usual encroachment of nitrogen-loving species like coarse grasses, where phosphorous is limited. This is most common in calcareous dunes, but not all calcareous dunes are P-limited.

Natural England would therefore accept a higher point in the critical load range in detailed assessment (not at screening/ likely significant effect stage) where a site is evidenced to be both calcareous and P-limited.

Natural England Requirements
As per Natural England's standard approach, screening must be undertaken based on the lowest point of the critical load range for the most sensitive feature on the site. Assuming this is dune grassland, which for Lighthouse Green Fuels I think it is, if a project will result in a Process Contribution of > 1% (alone or in-combination) of 5kgN/ha/yr, it should be scoped in for detailed assessment (either Habitats Regulations Assessment Stage 2 (Appropriate Assessment) or a detailed SSSI impact assessment.

Within an appropriate assessment, justification can be made that a higher point in the critical load range can be used, as long as this is evidenced. For calcareous dunes only, Natural England will accept a critical load of 10kgN/ha/yr (the previous lower point of the range) where evidence is provided on dune pH and P status. This can be used as part of the assessment against the site's Conservation Objectives, or whether a SSSI would be harmed by a proposed development. Other factors to consider are outlined in section 5 of NEA001[3].

A standard accredited soils test can be used to assess nitrogen and phosphorus content. An appropriate number of samples for the area that could be affected should be taken from the dune habitat in the area subject to a >1% Process Contribution. pH must also be recorded at the same locations as soil samples, using a pH meter or other appropriate technique. These must demonstrate a pH>7 to allow the higher critical load to be used. The optimal N:P ratio for most plants is approximately 15:1 (i.e., N limitation occurs when N:P < 14; P limitation occurs when N:P > 16) (Koerselman & Meuleman, 1996 [43], Luo et al 2016[5]). Therefore, if N:P>16, the system is considered to be P-limited, the higher critical load can be used.

A point between 10 and 15kgN/ha/yr may be accepted if phosphorus levels are very low indeed (the ratio of N:P >>16). However, Natural England will not accept a level of 15kgN/ha/yr as this is not precautionary. There is evidence that P limitation may not fully protect habitats in the long-term from N-deposition impacts mediated by plant competition[65].

In summary, where:

- pH < 7 (acidic) and not P-limited (N:P<16): an assessment should use a critical load of 5kgN/ha/yr
- pH > 7 (calcareous) and P-limited (N:P>16): an assessment should use a critical load of 10kgN/ha/yr
- pH > 7 (calcareous) and not P-limited (N:P<16): an assessment should use a critical load of 5kgN/ha/yr
- pH < 7 (acidic) and P-limited (N:P>16) (considered to be unlikely): an assessment should use a critical load of 5kgN/ha/yr

5.4. **Assessment of Disturbance Impacts to SPA/Ramsar/SSSI Birds**

Teesmouth and Cleveland Coast SPA, Ramsar and SSSI is designated for its wintering and breeding bird populations. Due to the proximity of industrial regeneration projects to the designated sites, there is the potential for projects to result in bird disturbance impacts (visual and noise) during their construction and operational phases, both alone and in-combination.

Natural England advise that the type of noise that could be generated from a project should be clearly defined. This is to ensure that noise evidence is reported using the most relevant metrics for understanding the worst-case scenario. Some types of piling works produce impulsive loud noises, and potential impacts should be established following analysis of the maximum possible sound levels in decibels. For works with less impulsive noises, modelling to understand any increases in average noise levels should be used to understand possible impacts on areas used by SPA/Ramsar/SSSI birds.

Applicants should provide sufficient information to assess if there would be a significant change from baseline noise experienced by sensitive features. Our advice is that a change of greater than 3dB from the baseline at a location used by a sensitive feature is enough to require further assessment. This further assessment should consider how the features use the site, the frequency of noise events, as well as the maximum (LAmax) and average (LAeq) volume produced by the development.

Applicants are advised to undertake modelling to establish any zones of potential bird displacement. Natural England advise that this is a minimum evidence requirement. To inform an in-combination assessment, where data is limited, applicants are advised to provide this modelling using reasonable assumptions about other projects in scope, including the length of time that each project may produce noise. Modelling should be presented in map form, inclusive of the following data:

- Noise contours using the relevant noise metric. This data should be presented with and without noise-reduction measures.
- Marked buffer distances to account for bird sightlines. This data should be presented with and without screening measures.
- Bird count data at SPA sector level expressed as a percentage of the total SPA population.
- Habitat function.
- The red line boundaries of all projects in scope.

For construction noise impacts, our advice is for works to occur outside of the sensitive times of year for SPA/Ramsar/SSSI bird populations to avoid impacts (September - April). Applicants should as standard incorporate triggers for cold weather winter works suspensions.

5.5. **Marine Biodiversity Comments – Relevant to International and National Designated Sites**

Natural England has reviewed chapter 6.8 Marine Biodiversity of the scoping report and has the following specific comments regarding the scoping conclusions:

Table 5			
Impact Pathway	**Phase**	**Scoping Decision**	**NE Comment**
Tees River crossing (existing tunnel or MBT/ HDD)			
Injury or disturbance as a result of underwater noise and vibration	Construction	Out	Natural England would agree with this conclusion if in-river and river adjacent works are excluded from future design parameters. If not, we would disagree with the conclusion.
Change in water quality / affecting marine habitats and species	Construction	In	Natural England agrees with this conclusion and recommends that the applicant includes pollution prevention and clean-up plans for all methods of undertaking the river crossing (including 'frac-out' during Horizontal Directional Drilling activities).
Sedimentation	Construction	Out	Natural England would agree with this conclusion in-river and river adjacent works are excluded from future design parameters. If not, we would disagree with the conclusion.
Injury or disturbance as a result of underwater noise and vibration	Decommissioning	Out	Natural England would agree with this conclusion in-river and river adjacent works are excluded from future design parameters. If not, we would disagree with the conclusion.
Direct loss and physical disturbance to marine habitats and species	Decommissioning	Out	Natural England would agree with this conclusion in-river works are excluded from future design parameters. If not, we would disagree with the conclusion.
Change in water quality affecting marine habitats and species	Decommissioning	Out	Natural England disagrees with this conclusion because the application has scoped in the same impact pathway for the construction phase. As the decommissioning phase is likely to mirror the construction phase, it would seem logical for this

			pathway to be scoped in.

Wastewater Connection Corridor outfall			
Injury or disturbance as a result of underwater noise and vibration	Construction & Decommissioning	In	Natural England agrees with this conclusion. If applicant wishes to scope out this pathway at a later stage, we agree that further details would be needed
Loss of foraging resource for bird species	Construction & Decommissioning	Out	Natural England disagrees with this conclusion. Any loss of supporting habitat within a designated should be considered significant and robustly assessed.
Sedimentation	Construction & Decommissioning	Out	Natural England disagrees with this conclusion. There is currently insufficient information about scale and longevity of impact. Therefore, we recommend that it is scoped in.
Direct loss and physical disturbance to marine habitats and species	Operation	Out	Natural England disagrees with this conclusion. There is currently insufficient information about the requirements for maintenance works within the designated site. Therefore, we recommend that it is scoped in.
Change in water quality affecting marine habitats and species	Operation	Out	Natural England disagrees with this conclusion. Point 6.8.99 in the scoping report states that there is the potential for contaminated water to be discharged during the operational phase but does not clearly set out why this is not likely to cause damage to ecological receptors. Therefore, we recommend this is scoped in.

5.6. Informative Comments Regarding Mobilisation of Contaminated Sediments and Protected Sites in the Tees Estuary

The proposal is located adjacent to the River Tees Estuary and some proposed activities could result in the mobilisation of contaminated sediments. As such, Natural England has the following informative comments to ensure that any potential for dredging or other activities that could result in the mobilisation of contaminated sediments are subject to a robust assessment.

Natural England is aware of concerns around potential links between dredging within the Tees estuary and shellfish die-offs along the North Eastern and North Yorkshire coastlines. We acknowledge the results of the DEFRA investigation into these events, and that as of yet, there is no substantial published evidence linking the dredging activity within the Tees to these die-off events. However, given the close proximity of protected sites along the north-east coastline, the ecological impact of these events, and the possibility that new evidence may come to light following further investigations, we encourage your authority to take a cautious approach when considering any activities that could result in the mobilisation of contaminated sediments within the Tees, and to consult with the relevant experts and authorities using the best available evidence on these matters.

Heavy industrialisation and historic contamination associated with the area justify the inclusion of these pressures in the LSE screening stage. Contaminants can be effectively 'locked into' the seabed sediments in ports and harbours and subsequent re-mobilisation (e.g., by dredging) can release these contaminants into the water column. Subsequent resettlement of contaminants risks adverse effects on adjacent/downstream sites causing potential harm to qualifying features either directly or, through bioaccumulation of toxins via food chain processes.

Natural England defer to CEFAS and the Environment Agency for further detailed advice on impacts related to contaminated sediments.

6. Regionally and Locally Important Sites

We are not aware that the applicant has considered regionally and locally important sites through our current engagement. We would welcome the Inspectorate reminding the applicant that the ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local sites are identified by the local Wildlife Trust, geoconservation group or other local group. The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. They may also provide opportunities for delivering beneficial environmental outcomes.

7. Protected species

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England has adopted standing advice for protected species, which includes guidance on survey and mitigation measures. A separate protected species licence from Natural England or Defra may also be required.

The ES will need to consider the following Protected species:

- Bats
- Badger
- Water Vole
- Great Crested Newt
- Otter
- Reptiles
- Birds (including breeding and those protected under Schedule 1 of the Wildlife and Countryside Act).

We note that the Applicant is going to undertake breeding bird surveys of the DCO order limit. We would like to highlight that the Teesmouth and Cleveland Coast SPA is designated for breeding tern and avocets, therefore all breeding bird surveys should include surveys for signs of these species specifically and all impacts on these species should also be covered in the assessment on the designated site and within the HRA.

8. District Level Licensing for great crested newts

Natural England notes that field surveys are to be undertaken to confirm the presence on great crested newts within ponds in the DCO order limit. If great crested newts are found within ponds which are going to be impacted by the project, Natural England would like to draw the Applicant's attention to our District Level Licencing Scheme for great crested newts.

Where strategic approaches such as DLL for GCN are used, a Letter of No Impediment (LONI) will not be required. Instead, the developer will need to provide evidence to the Examining Authority (ExA) on how and where this approach has been used in relation to the proposal, which must include a counter-signed Impact Assessment and Conservation Payment Certificate (IACPC) from Natural England, or a similar approval from an alternative DLL provider.

The DLL approach is underpinned by a strategic area assessment which includes the identification of risk zones, strategic opportunity area maps and a mechanism to ensure adequate compensation is provided regardless of the level of impact. In addition, Natural England (or an alternative DLL provider) will undertake an impact assessment, the outcome of which will be documented in the IACPC (or equivalent).
If no GCN surveys have been undertaken, Natural England's risk zone modelling may be relied upon. During the impact assessment, Natural England will inform the applicant whether their scheme is within one of the amber risk zones and therefore whether the Proposed Development is likely to have a significant effect on GCN.
The IACPC will also provide additional detail including information on the Proposed Development's impact on GCN and the appropriate compensation required.

By demonstrating that the DLL scheme for GCN will be used, consideration of GCN in the ES can be restricted to cross-referring to the Natural England (or alternative provider) IACPC as a justification as to why significant effects on GCN populations as a result of the Proposed Development would be avoided

9. Biodiversity net gain

The Environment Act 2021 includes NSIPs in the requirement for BNG, with the biodiversity gain objective for NSIPs defined as at least a 10% increase in the pre-development biodiversity value of the on-site habitat. It is the intention that BNG should apply to all terrestrial NSIPs accepted for examination from November 2025. This includes the intertidal zone but excludes the subtidal zone (an approach to marine net gain is being developed but this will not form part of mandatory BNG). Projects that span both offshore and onshore will be subject to BNG requirements for the onshore components only. Some organisations have made public BNG commitments, and some projects are already delivering BNG on a voluntary basis.

We note that the Applicant has committed to delivering 10% BNG provision, as the project is expected to come forward after the date when BNG provision will become mandatory for NSIPs. Natural England supports this commitment.

10. Landscape and visual impacts

The environmental assessment should refer to the relevant National Character Areas. Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in Guidelines for Landscape and Visual Impact Assessment 2013 (3rd edition) produced by LI and IEMA. For National Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the National Design Guide and National Model Design Code. The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

The National Infrastructure Commission has also produced Design Principles for National Infrastructure - NIC endorsed by Government in the National Infrastructure Strategy.

11. Connecting people with nature

The ES should consider the potential impacts on the King Charles III England Coast Path National Trail. We welcome the inclusion of the coast path in Figure 6.12.1 – 'Socioeconomics Baseline' and local rights of way within Figure 6.13.2 – 'Public Rights of Way'. The National Trails website www.nationaltrail.co.uk provides further information.

Natural England notes that impacts to the amenity value of users of this National Trail have been scoped out, as the proposed development will not be a significant change from the existing local landscape. Natural England agrees with this conclusion but would like to highlight the potential for this project to enhance the amenity value of the trail through new or improved Green Infrastructure. We would welcome further discussion about this with the applicant.

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 104 and there will be reference in the relevant National Policy Statement. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced. We also refer the applicant to the following relevant local projects. Both provide a range of recommendations that will support suitable consideration and dialogue.

- Re-greening the King Charles III England Coast Path
- Re-Framing the Tees (Landscape Architecture Pilot Project)

12. Soils and agricultural land quality

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered. Further guidance is set out in the Natural England Guide to assessing development proposals on agricultural land.

The following issues should be considered and, where appropriate, included as part of the ES:

- The degree to which soils would be disturbed or damaged as part of the development.
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any BMV agricultural land would be impacted.

A predicted Agricultural Land Classification (ALC) has been provided based on the Provisional ALC classification maps. However, the map referred to in Volume I (Volume II – Appendix A – figure 6.6.3) does not appear to have been included. Due to the potential presence of BMV agricultural land (up to 40ha[3]), Natural England recommends a detailed Agricultural Land Classification (ALC) survey should be carried out in areas where agricultural land will be affected by the development. For information on the availability of existing ALC information see www.magic.gov.uk.

- The ALC and soil survey of the land should be carried out by a suitably qualified professional soil surveyor. The surveys should be to a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

Further information is available in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and The British Society of Soil Science Guidance Note Benefitting from Soil Management in Development and Construction.

[3] Para 6.6.36 of EIA scoping report

13. Air quality – General Advice

Natural England has provided specific comments regarding the assessment of air pollution on sand dunes, which are a special interest feature of the Teesmouth and Cleveland Coast SSSI. We set out below further, general advice regarding air quality, which may help inform the applicant's overall assessment of air quality.

Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg)[1]. A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NOx and SO_2 against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs, which may be being developed or implemented to mitigate the impacts of air quality. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk).

Natural England has produced guidance for public bodies to help assess the impacts of road traffic emissions to air quality capable of affecting European Sites. Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations - NEA001

Information on air pollution modelling, screening and assessment can be found on the following websites:

- SCAIL Combustion and SCAIL Agriculture - http://www.scail.ceh.ac.uk/
- Ammonia assessment for agricultural development https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit
- Environment Agency Screening Tool for industrial emissions https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England http://www.airqualityengland.co.uk/laqm

[1] Report: Trends Report 2020: Trends in critical load and critical level exceedances in the UK - Defra, UK

14. Climate change

The Environmental Statement (ES) should identify how the development affects the ability of the natural environment (including habitats, species, and natural processes) to adapt to climate change, including its ability to provide adaptation for people. This should include impacts on the vulnerability or resilience of a natural feature (i.e. what's already there and affected) as well as impacts on how the environment can accommodate change for both nature and people, for example whether the development affects species ability to move and adapt. Nature-based Solutions, such as providing green infrastructure on-site and in the surrounding area (e.g. to adapt to flooding, drought and heatwave events), habitat creation and peatland restoration, should be considered. The ES should set out the measures that will be adopted to address impacts.

Further information is available from the Committee on Climate Change's (CCC) Independent Assessment of UK Climate Risk, the National Adaptation Programme (NAP), the Climate Change Impacts Report Cards (biodiversity, infrastructure, water etc.) and the UKCP18 climate projections.

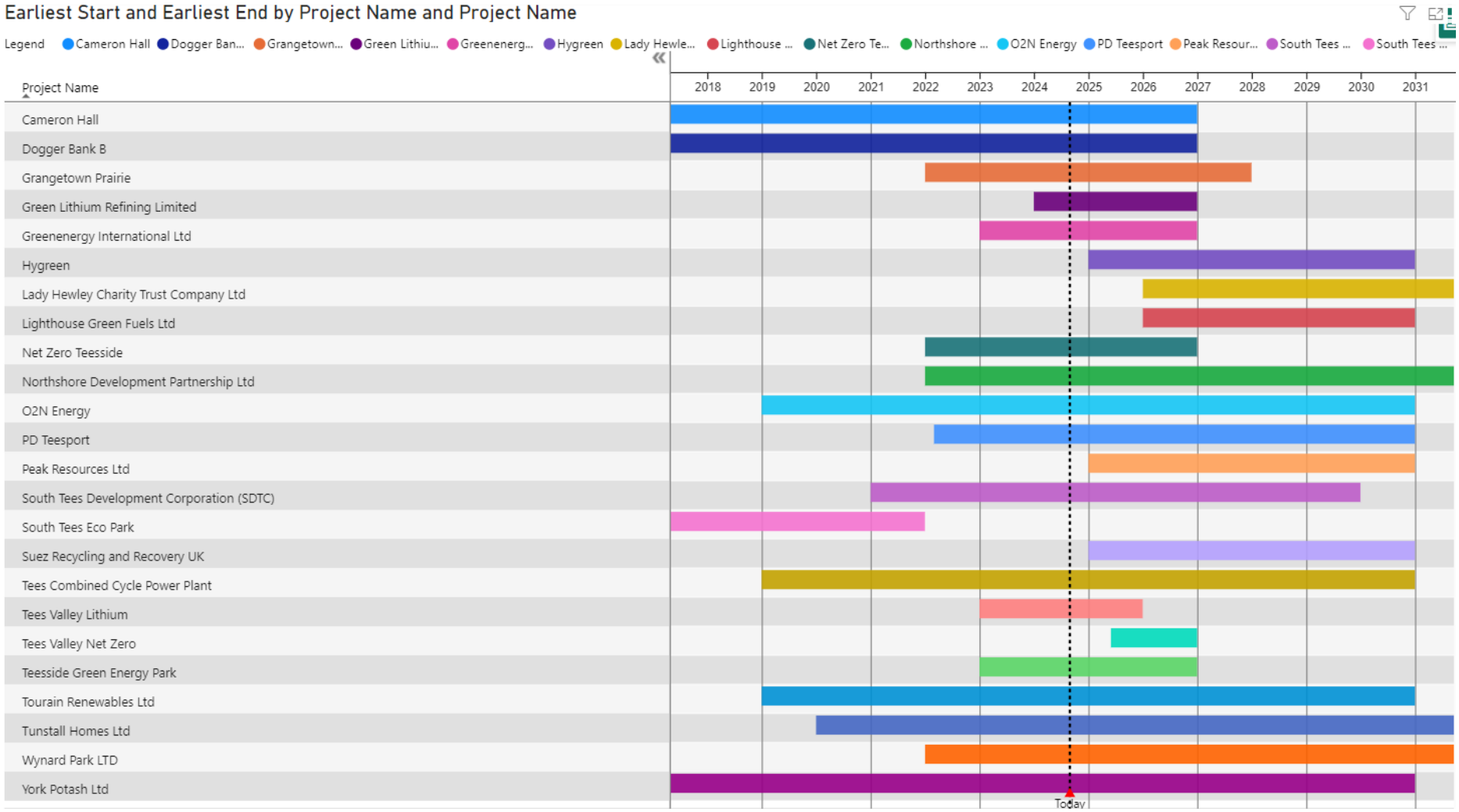
The Natural England and RSPB Climate Change Adaptation Manual (2020) provides extensive information on climate change impacts and adaptation for the natural environment and adaptation focussed Nature-based Solutions for people. It includes the Landscape Scale Climate Change Assessment Method that can help assess impacts and vulnerabilities on natural environment features and identify adaptation actions. Natural England's Nature Networks Evidence Handbook (2020) also provides extensive information on planning and delivering nature networks for people and biodiversity.

The ES should also identify how the development impacts the natural environment's ability to store and sequester greenhouse gases, in relation to climate change mitigation and the natural environment's contribution to achieving net zero by 2050. Natural England's Carbon Storage and Sequestration by Habitat report (2021) and the British Ecological Society's Nature-based Solutions report (2021) provide further information.

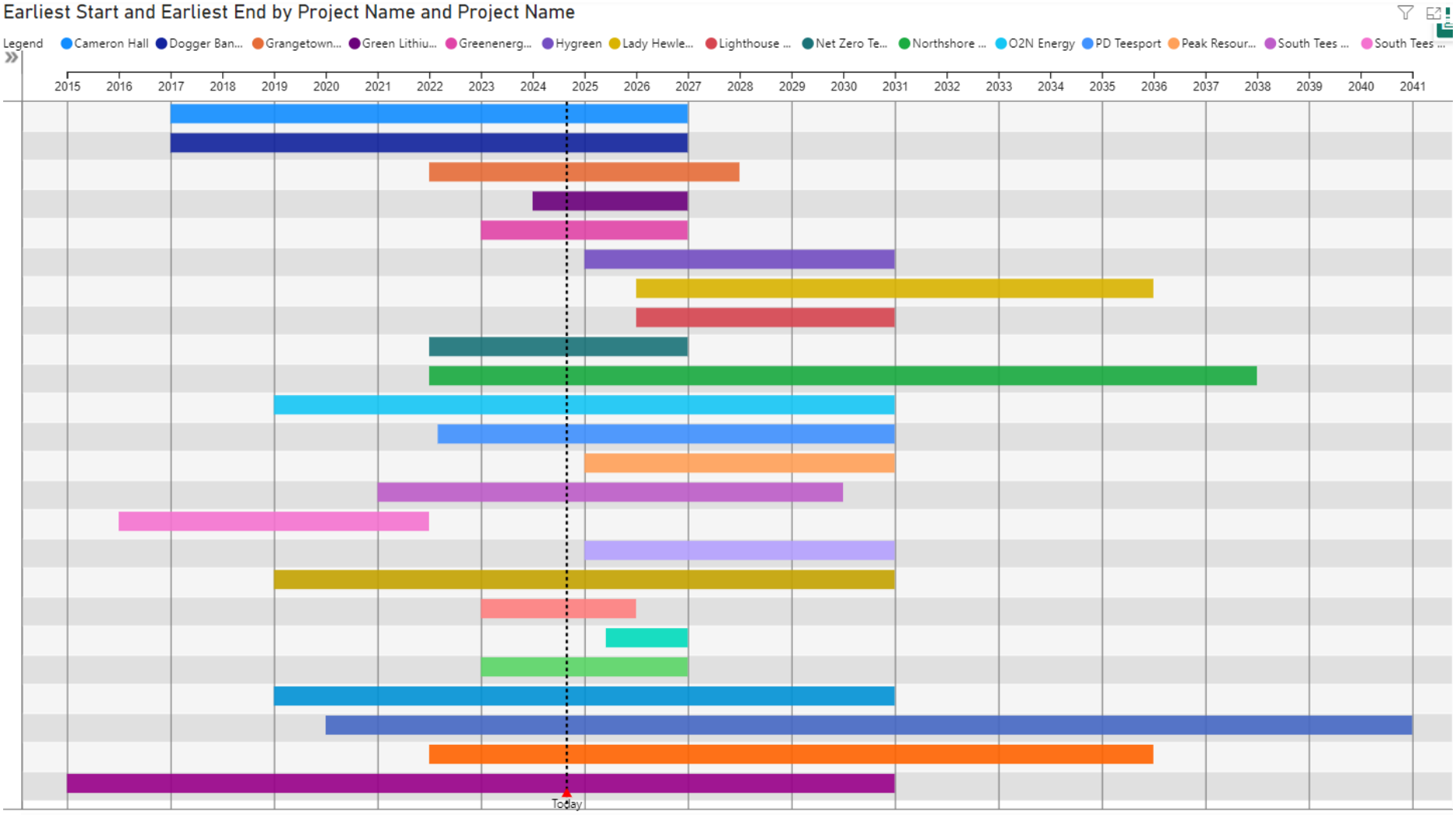
Appendix A

Projects for consideration in respect of cumulative and in combination assessment

1. Gantt Chart illustrating scope for Temporal overlap


Earliest Start and Earliest End by Project Name and Project Name
Legend
Cameron Hall
Dogger Ban...
Grangetown...
Green Lithiu...
Greenenerg...
Hygreen
Lady Hewle...
Lighthouse ...
Net Zero Te...
Northshore ...
O2N Energy
PD Teesport
Peak Resour...
South Tees ...
South Tees ...
Project Name
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
Cameron Hall
Dogger Bank B
Grangetown Prairie
Green Lithium Refining Limited
Greenenergy International Ltd
Hygreen
Lady Hewley Charity Trust Company Ltd
Lighthouse Green Fuels Ltd
Net Zero Teesside
Northshore Development Partnership Ltd
O2N Energy
PD Teesport
Peak Resources Ltd
South Tees Development Corporation (SDTC)
South Tees Eco Park
Suez Recycling and Recovery UK
Tees Combined Cycle Power Plant
Tees Valley Lithium
Tees Valley Net Zero
Teesside Green Energy Park
Tourain Renewables Ltd
Tunstall Homes Ltd
Wynard Park LTD
York Potash Ltd
Today

Gantt chart continued:



2. Screen grab excerpt of Excel spreadsheet submitted to H2Teesside examination

Application Reference	Planning Stage	Approval/ Response Year	Project Name	Description	Developer	Sector	Start	End
EN010082	Decided	2019	Tees Combined Cycle Power Plant	A gas fired combined cycle gas turbine (CCGT) power station with a maximum generating capacity of up to 1,700 MWe (Tbc). The project will utilise existing Gas and National Grid connections. Main construction period is 2019-2022, with further construction works until 2030	Sembcorp Utilities (UK) Limited	Industrial	01/01/2019	31/12/2030

EN010103	Decided	2024	Net Zero Teesside	A full chain carbon capture utilisation and storage (CCUS) project, comprising a CO2 gathering network, including CO2 pipeline connections from industrial facilities Teesside to transport the captured CO2 (including the connections under the tidal River Tees); a combined cycle gas turbine ('CCGT') electricity generating station with an abated capacity circa 850 gigawatts output (gross), cooling water, gas and electricity grid connections and CO2 capture; a CO2 gathering booster station to receive the captured CO2 from the gathering network and CCGT generating station; and the onshore section of a CO2 transport pipeline for the onward transport of the captured CO2 to a suitable offshore geological storage site in the North Sea.	BP	Industrial	01/01/2022	31/12/2026
EN010103	Decided	2024	Net Zero Teesside	Offshore elements to be consented by Marine Licence including CO2 Export Pipeline below MHWS and geologial	BP	Industrial	01/01/2025	31/12/2027

				store and associated facilities.				
EN010051	Decided	2021	Dogger Bank B	Project previously known as Dogger Bank Teesside A&B. Dogger Bank Teesside A & B is the second stage of Forewind's offshore wind energy development of the Dogger Bank Zone (Zone 3, Round 3). Dogger Bank Teesside A & B will comprise up to two windfarms, each with an installed capacity of up to 1.2GW, which are expected to connect to the National Grid at the existing National Grid substation at Lackenby, near Eston. It follows that Dogger Bank Teesside A & B could have a total installed capacity of up to 2.4GW Dogger Bank Teesside A & B is located within The Dogger Bank Zone which comprises an area of 8660 square kilometres (km2) located in the North Sea between 125 kilometres (km) and 290km off the UK North East coast.	Forewind Ltd	Industrial	01/01/2017	31/12/2026

EN010105	Pre-Application	PENDING	Lighthouse Green Fuels Ltd	Waste-to-sustainable aviation fuel' facility with on-site generating station capacity of up to 150 MW	Lighthouse Green Fuels Ltd	Industrial	01/01/2026	31/12/2030
R/2017/0876/FFM	Approved	2018	Peak Resources Ltd	Construction and operation of a mineral processing and refining facility including ancillary development, car parking and landscaping.	Peak Resources Ltd	Industrial	01/01/2025	31/12/2030
R/2019/0767/OOM	Outline	2020	Grangetown Prairie	Energy Recovery Facility and associated development	Director of Regeneration and Neighbourhoods Hartlepool	Industrial	01/01/2022	31/12/2027
R/2019/0031/FFM	Approved	2019	Tourain Renewables Ltd	Plastic conversion facility at former Croda Site, Wilton (Redcar)	Tourain Renewables Ltd	Industrial	01/01/2019	31/12/2030
R/2014/0627/FFM	Approved	2015	York Potash Ltd	Polyhalite mine	York Potash Ltd	Industrial	01/01/2015	31/12/2030
R/2014/0372/OOM	Outline	2016	Lady Hewley Charity Trust Company Ltd	1250 residential development	Lady Hewley Charity Trust Company Ltd	Residential	01/01/2026	31/12/2035

R/2020/0357/OOM	Outline	2020	South Tees Development Corporation (SDTC)	Decomissioning and construction of industrial work	South Tees Development Corporation (SDTC)	Industrial	01/01/2021	31/12/2029
R/2006/0433/OO	Outline	2007	PD Teesport	Development of a container terminal	PD Teesport	Industrial	02/03/2022	31/12/2030
R/2020/0819/ESM	Outline	2022	South Tees Development Corporation (SDTC)	139,353 sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking, works to watercourse including realignment and associated infrastructure works. All matters reserved.	South Tees Development Corporation (SDTC)	Industrial	01/01/2021	31/12/2032
R/2020/0820/ESM	Outline	2022	South Tees Development Corporation (SDTC)	Outline planning application for development of up to 92,903sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated	South Tees Development Corporation (SDTC)	Industrial	01/01/2028	31/12/2031

R/2020/0821/ESM	Outline	2022	South Tees Development Corporation (SDTC)	Outline planning application for development of up to 464,515sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated	South Tees Development Corporation (SDTC)	Industrial	01/01/2021	31/12/2033
R/2020/0822/ESM	Outline	2022	South Tees Development Corporation (SDTC)	Outline planning application for development of up to 185,806sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated	South Tees Development Corporation (SDTC)	Industrial	01/01/2021	31/12/2033
R/2020/0823/ESM	PENDING	PENDING	South Tees Development Corporation (SDTC)	Outline planning application for development of up to 15,794sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class E), HGV and car parking and associated	South Tees Development Corporation (SDTC)	Industrial	01/01/2026	31/12/2031
MWP8 South Tees Eco Park			South Tees Eco Park	Tees Valley Joint Minerals and Wate Development	Joint Development	Industrial	01/01/2016	31/12/2021

H/2022/0181	PENDING	PENDING	Wynard Park LTD	1400 dwellings and 750sqm non-residential floorspace	Wynard Park LTD	Residential	01/01/2022	31/12/2035
H/2014/0428	Outline	2019	Tunstall Homes Ltd	Outline application with all matters reserved for residential development comprising up to 1,200 dwellings of up to two and a half storeys in height and including a new distributor road, local centre, primary school, amenity open space and structure planting.	Tunstall Homes Ltd	Residential	01/01/2020	31/12/2040
23/0090/EIS	PENDING	PENDING	Suez Recycling and Recovery UK	Carbon capture facility for energy from waste site	Suez Recycling and Recovery UK	Industrial	01/01/2025	31/12/2030
13/0342/EIS	Outline	2017	Cameron Hall	500 houses and facilities (in doctors, nursery and schools)	Cameron Hall	Residential	01/01/2017	31/12/2026
08/3644/EIS	Outline	2009	Northshore Development Partnership Ltd	Residential and facilities (employment and healthcare facilities, retail and landscaping)	Northshore Development Partnership Ltd	Residential	01/01/2022	31/12/2037

R/2020/0685/ESM	Approved	2021	South Tees Development Corporation (SDTC)	development of new quay	South Tees Development Corporation (SDTC)	Industrial	01/01/2021	31/12/2041
R/2022/0773/ESM	Approved	2022	Tees Valley Lithium	Lithium Hydroxide Monohydrate manufacturing plant	Tees Valley Lithium	Industrial	01/01/2023	31/12/2025
R/2023/0291/ESM	Approved	2023	Green Lithium Refining Limited	Mineral granulation and storage facility	Green Lithium Refining Limited	Industrial	01/01/2024	31/12/2026
22/1525/EIS	Approved	2024	Teesside Green Energy Park	Energy recovery faciltiy	Teesside Green Energy Park	Industrial	01/01/2024	31/12/2027
23/1019/EI	Approved	2023	Greenenergy International Ltd	renewable fuels and circular products facility	Greenenergy International Ltd	Industrial	01/01/2023	31/12/2026
R/2023/0179/SCP	Scoping Opinion	2023	Hygreen	Hyrdogen project	BP	Industrial	01/01/2025	31/12/2030
22/2386/SOR	Scoping Opinion	2023	Tees Valley Net Zero	Green Hydrogen Production Facility and Wind Turbine	Protium Green Solutions Limited	Industrial	01/06/2025	31/12/2026
13/2892/EIS	Approved	2013	O2N Energy	Energy from waste facility and associated buildings	O2N Energy	Industrial	01/01/2019	31/12/2030