

The Lighthouse Green Fuels Order

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Applicant: LGF Projects Limited

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Abbreviations

Abbreviation	In full
AQAL	Air Quality Assessment Level
AQMA	Air Quality Management Area
ASU	Air Separation Unit
CATS	Central Area Transmission System
CHP	Combined Heat and Power
CO ₂	Carbon dioxide
COMAH	Control of Major Accident Hazards
DCO	Development Consent Order
EA	Environment Agency
ES	Environmental Statement
GCN	Great Crested Newt
GDTE	Groundwater Dependent Terrestrial Ecosystem
ha	hectares
HV	High Voltage
LWS	Local Wildlife Site
MBC	Middlesbrough Borough Council
MCA	Marine Character Area
NCA	National Character Area
NIA	Noise Important Area
NNR	National Nature Reserve
NO ₂	Nitrogen dioxide
NSR	Noise Sensitive Receptor
PM	Particulate Matter
PRoW	Public Right of Way
PSRs	Pipeline Safety Regulations
RCBC	Redcar and Cleveland Borough Council
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAF	Sustainable Aviation Fuel
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STBC	Stockton-on-Tees Borough Council
WFD	Water Framework Directive
WwTW	Wastewater Treatment Works

3 Site and Surrounding Area

3.1 Introduction

3.1.1 This chapter of the Environmental Statement (ES) provides a summary of the existing environment at the Site of the Proposed Development and its surroundings. Further relevant details are presented within the baseline sections of each of the topic chapters as presented in this **ES** (refer to **Chapters 8 to 21, ES Volume I, Application Document Ref. 6.1**). This chapter is not a comprehensive baseline description and should be read in conjunction with the topic chapters.

3.1.2 This chapter is supported by the following figures:

- **Figure 3.1: Surrounding Developments (ES Volume II, Application Document Ref. 6.2);** and
- **Figure 3.2: Designated Conservation Sites (ES Volume II, Application Document Ref. 6.2).**

3.1.3 The Proposed Development is located within the administrative boundaries of Stockton-on-Tees Borough Council (STBC), Billingham South Ward to the north of the River Tees and Redcar and Cleveland Borough Council (RCBC) South Bank Ward to the south of the river. The Proposed Development is shown on **Figure 1.2: Proposed Development Boundary (ES Volume II, Application Document Ref. 6.2)**. The area within this boundary comprises the Order limits and is referred to in this chapter as the “Site”.

3.2 The Proposed Development

3.2.1 The Proposed Development is located in Teesside on land to the north and south of the River Tees, comprised of the Main Site, where the Sustainable Aviation Fuel (SAF) Production Facility (including Combined Heat and Power (CHP) plant and Air Separation Unit (ASU)) and quay will be located, and the Wider Site which includes the access and utility connection corridors associated with the SAF Production Facility and other elements of the Proposed Development located off the Main Site.

3.2.2 The Proposed Development site covers an area of 190.78 hectares (ha), subdivided as follows:

- Main Site: 104.6ha; and
- Wider Site: 86.2ha.

3.2.3 The Main Site is located in the Seal Sands industrial area of North Tees and is located on the north bank of the River Tees approximately 5km east of

Billingham town centre, 4km north east of Middlesbrough town centre, and 4km south west of Teesmouth (see **Figure 1.1: Site Location, ES Volume II, Application Document Ref. 6.2**). The Main Site is immediately bounded by the River Tees to the east and is surrounded by the Seal Sands industrial area to the north, south and west.

3.2.4 The Main Site lies:

- directly adjacent to the south and east of the Central Area Transmission System (CATS) gas processing terminal, the proposed H2NorthEast development site and Whitetower Energy Ltd;
- directly adjacent to the south west of Navigator Terminals Seal Sands bulk storage terminal;
- directly adjacent to the south of KD Pharma pharmaceutical manufacturing plant and Lianhetech chemical plant;
- 2.1km to the north of BOC, Navigator North Tees, SABIC, N+P Subcoal Production Teesside and the non-operational Tees Valley 1 & 2 energy from waste plants; and
- close to the consented Northern Endurance Partnership carbon dioxide (CO₂) Gathering Network corridor which will run north-south through the eastern side of the Main Site and then westward along its southern boundary.

3.2.5 The Wider Site includes land for access, connection corridors, marine works and construction laydown and includes land both north and south of the Tees (see **Figure 4.2: Indicative Site Layout, ES Volume II, Application Document Ref. 6.2**).

3.3 Historical land use

3.3.1 The Seal Sands industrial area including the Main Site was developed on land reclaimed from the Tees Estuary which comprised the channel of the River Tees and tidal sand banks including Seal Sands. In 1950, reclamation of land from the Tees in the Seal Sands area commenced with construction of a track and jetty in the south of the Site enabling dredged material from the Tees Estuary to be used together with steelworks slag to backfill the reclaimed area.

3.3.2 A chemical plant complex was developed in the east and centre of the Main Site south of Seal Sands Road in the 1960s. This was originally owned by Monsanto. BASF plc acquired the plant in 1985, and INEOS took ownership in 2008. Operations at the chemical plant ceased in 2020, and the plant was decommissioned and demolished by 2023. The site was cleared to

ground slab level. It is assumed that former building foundations and other sub-structures may remain beneath the Main Site.

- 3.3.3 Available historical maps indicate that the vegetated portion of the Main Site lying to the north of Seal Sands Road has not previously been developed.
- 3.3.4 The western end of the Main Site south of Seal Sands Road is brownfield land which includes a historic landfill site. Anecdotal evidence suggests that this landfill site ceased operations by 1985. The landfill is not capped but is covered with a thin layer of soil and has naturally revegetated with grass and scrub.
- 3.3.5 In planning terms, the Main Site is therefore predominantly, but not entirely, 'previously developed land' or 'brownfield land'.

3.4 Current land use

- 3.4.1 The Main Site now largely consists of concrete hardstanding with some vegetated areas. In the east, two disused jetties lie along the River Tees frontage. These were previously used for loading and unloading operations at the former chemical plant.
- 3.4.2 The part of the Main Site north of Seal Sands Road is also vegetated with grass and woodland scrub, part of which is included in the proposed DCO as a construction laydown area and potential area for development of an Air Separation Unit (ASU) if required.
- 3.4.3 The Site has a number of potential access and utility corridors:
- access to the Main Site via Seal Sands Road;
 - pipeline connections from the Main Site for export of SAF and renewable naphtha to local existing marine loading infrastructure operated by third parties in North Tees;
 - CO₂ export pipeline corridor from the Main Site to connect with the consented Northern Endurance Partnership (NEP) carbon dioxide transport and storage infrastructure. The Proposed Development includes two alternative pipeline routes, of which only one would be developed;
 - industrial wastewater connection corridor running north east and then east from the Main Site in North Tees, then using an existing tunnel to cross under the River Tees and then along the north bank of the Dabholm Gut in South Tees. A new pipeline connection will be required along this route replacing an existing pipeline and providing a new connection into the Bran Sands Wastewater Treatment Works (WwTW);

- high-pressure nitrogen pipeline running within a corridor north east from the Main Site in North Tees to connect with an existing pipeline crossing under the Tees and then a new pipeline connection along the south bank of the Dabholm Gut to an existing industrial gases facility at Lackenby in South Tees;
- oxygen pipeline between the Main Site and the existing industrial gases facility in South Tees crossing the Tees using a mixture of new and existing pipelines;
- two access tracks to the pipeline and utility corridors from the A178 south of Seal Sands roundabout in North Tees;
- construction and operational vehicular access corridor in South Tees from Wilton International North Gate to the north bank of Dabholm Gut; and
- construction and operational vehicular access corridor from the A1053 Tees Dock Road in South Tees.

3.5 Surrounding area

3.5.1 The Teesside area is a significant industrial hub, with chemical manufacturing and oil and gas facilities in Wilton, Seal Sands and Billingham. Hartlepool nuclear power station is located on the northern bank of the River Tees. There are industrial developments within a 5km radius of the Site (some of which are Control of Major Accident Hazards (COMAH) [Ref 1] regulated sites), including:

- bulk and fine chemical installations, with operations including: manufacture and production, disposal, storage and warehousing and distribution;
- fuel processing and storage installations, including refining and distribution;
- waste storage, treatment and disposal sites;
- wastewater and sewage collection, supply and treatment; and
- power generation, supply and distribution.

3.5.2 An existing network of buried and above-ground pipelines is present within a 5km radius of the Site, including major hazard pipelines regulated in accordance with the Pipelines Safety Regulations (PSRs) 1996 [Ref 2]. There is also significant infrastructure associated with the transmission and distribution of energy including high-voltage (HV) 400kV overhead power lines present within a 5km radius of the Proposed Development.

- 3.5.3 On the south bank of the River Tees, the proposed pipeline corridor runs parallel to a man-modified channel off the River Tees called the Dabholm Gut. This is adjacent to the closed former ICI landfill site at Bran Sands and Northumbrian Water Ltd's Bran Sands WwTW. To the south east of Dabholm Gut is Teesport, the sixth largest port in the UK and operated by PD Ports, who are the statutory harbour authority.
- 3.5.4 To the north of the Main Site is the proposed location of the H2NorthEast blue hydrogen development which requires a Development Consent Order (DCO) pursuant to a Section 35 direction under the Planning Act 2008 (PA 2008) dated 22 September 2025. A Scoping Opinion for this project was issued by the Planning Inspectorate on 21 March 2025 and a DCO application is currently anticipated to be submitted in February 2027.
- 3.5.5 To the north east of the Site on the south bank of the River Tees is the former site of the Redcar steelworks which was demolished and now forms part of the Teesworks development site. Whilst currently largely vacant, part of Teesworks is included within the boundary of the DCO for the Net Zero Teesside project; a carbon-capture-enabled power station and associated carbon dioxide compression facility for which a DCO was granted on 28 February 2024 and which is currently under construction. The associated consented Northern Endurance Partnership CO₂ Gathering Network pipeline will run from the Net Zero Teesside site and within the linkline pipeline corridor across the River Tees, through the eastern part of the Main Site and then along the southern boundary of the Main Site in the direction of Billingham.

3.6 Environmental receptors

- 3.6.1 A number of environmental receptors have been identified within and in the vicinity of the Site. Distances have been measured from the closest point of the Site boundary to the boundaries of the receptors; these are summarised below.

Residential and amenity

- 3.6.2 The nearest main residential areas to the Main Site and Wider Site are:
- Stockton-on-Tees, approximately 6.5km and 5.6km to the south west of the Main Site and Wider Site, respectively, including the settlements of:
 - i. Port Clarence approximately 2.6km and 1.3km south west of the Main Site and Wider Site, respectively; and
 - ii. Cowpen Bewley 3.3km and 2.4km to the north west of the Main Site and Wider Site respectively;

- Hartlepool, approximately 4.9km and 5km to the north of the Main Site and Wider Site, respectively;
- Seaton Carew, approximately 4.4km and 4.1km to the north of the Main Site and Wider Site, respectively;
- Middlesbrough, approximately 3.5km and 1.6km to the south of the Main Site and Wider Site, respectively;
- Redcar, approximately 3.8km and 300m to the east of the Main Site and Wider Site, respectively; and
- Cleveland, approximately 6km and 4km to the south east of the Main Site and Wider Site, respectively.

3.6.3 Nearby visitor attractions include:

- RSPB Saltholme Reserve visitor centre 1.4km and 500m to the south west of the Main Site and Wider Site, respectively;
- the River Tees Viewpoint in Middlesbrough 2.4km and 1.5km to the south of the Main Site and Wider Site, respectively;
- Teesmouth National Nature Reserve (NNR) 900m and 600m north of the Main Site and Wider Site, respectively;
- Middlesbrough Transporter Bridge 2.8km and 1.4km to the south west of the Main Site and Wider Site, respectively;
- Cowpen Bewley Woodland Country Park 3.5km and 2.9km to the west of the Main Site and Wider Site, respectively; and
- Middlesbrough Football Club's Riverside Stadium 3km and 1.9km to the south west of the Main Site and Wider Site, respectively.

3.6.4 There are no significant sites with regard to cultural heritage located within or adjacent to the Site. The nearest listed structures are:

- the Grade II listed Haverton Hill and Port Clarence War Memorial on Port Clarence Road in Port Clarence 2.6km and 1.4km south west of the Main Site and Wider Site, respectively; and
- five Grade II and one Grade II* listed properties in Cowpen Bewley 3.5km and 2.9km north west of the Main Site and Wider Site, respectively.

3.6.5 Further details on residential areas and cultural and visitor attractions can be found in **Chapter 13: Landscape and Visual Amenity (ES Volume I,**

Application Ref. 6.1) and Chapter 17: Socioeconomics (ES Volume I, Application Ref. 6.1).**Air quality**

- 3.6.6 There are no Air Quality Management Areas (AQMA) within, or adjacent to, the Site. The nearest AQMA is the Scarborough AQMA, approximately 23km to the south east of the Site.
- 3.6.7 Within 2km of the Main Site, there are a total of 25 existing regulated (or prescribed) industrial processes listed on the Environment Agency (EA) website [Ref 43]. Of these, 12 installations are permitted to discharge air emissions.
- 3.6.8 The nearest major roads, resulting in transport road emissions, are the A1185 and the A178 (Seaton Carew Road/Tees Road), which provide access to the Seal Sands industrial area. In addition, the Proposed Development is located opposite Teesport, the sixth largest port in the UK, resulting in transport shipping emissions.
- 3.6.9 STBC conducts automatic monitoring at three sites, and passive diffusion tube monitoring at 13 sites within their administrative area. However, none are located within 2km of the Main Site.
- 3.6.10 RCBC undertook automatic monitoring at two sites, with passive diffusion tube monitoring at 13 sites during 2023. Middlesbrough Borough Council (MBC) also conducted automatic monitoring at two sites, with passive diffusion tube monitoring at 13 sites during 2023.
- 3.6.11 The nearest automatic monitoring station is the RCBC suburban site Redcar Dormanstown, approximately 500m east of a construction connection corridor for the Proposed Development (overall approximately 4km east of the Main Site). Annual mean nitrogen dioxide (NO₂) and hourly mean NO₂ emissions recorded did not exceed air quality objectives. In addition, over the last five years there were no recorded exceedances of the annual mean particulate matter (PM) PM₁₀ and PM_{2.5} concentrations.
- 3.6.12 Seven passive NO₂ diffusion monitoring locations were located within 2km of the access and utility corridors for the Proposed Development in 2023. However, these are located further than 2km from the Main Site. For the closest diffusion monitoring tube, annual mean NO₂ concentrations were well below the annual mean Air Quality Assessment Level (AQAL).
- 3.6.13 Further information on air quality within the vicinity of the Proposed Development is presented in **Chapter 8: Air Quality (ES Volume I, Application Ref. 6.1).**

Hydrology and flood risk

- 3.6.14 The nearest designated watercourse to the Main Site is the River Tees (designated by the EA as a Main River), located to the south and east of the Proposed Development and is crossed by the gas and wastewater connections to South Tees.
- 3.6.15 There are several other surface water receptors within 2km of the boundary of Main Site and Wider Site, including:
- several unnamed land drains, located immediately adjacent to the north, east, south and west of the Main Site and Wider Site;
 - Dorman's Pool and Saltholme West Pool and several unnamed ponds, located 300m and 80m south west of the Main Site and Wider Site, respectively in North Tees;
 - Saltholme Brine Reservoirs located approximately 600m and 300m west of the Main Site and Wider Site, respectively in North Tees;
 - Greatham Creek (a Main River) located approximately 1.6km and 1.8km north west of the Main Site and Wider Site, respectively in North Tees;
 - Dabholm Beck flowing into Dabholm Gut (an Ordinary Watercourse) adjacent to Bran Sands WwTW located 1.4km east of the Main Site, and directly adjacent to the Wider Site in South Tees;
 - Knitting Wife Beck (an Ordinary Watercourse) located approximately 3km south of the Main Site and 300m south west of the eastern extent of the Wider Site in South Tees;
 - Mill Race (an Ordinary Watercourse) in South Tees intersects the A1085 Trunk Road at the eastern extent approximately 3km east of the Main Site and 190m north east of the eastern extent of the Wider Site;
 - The Fleet (an Ordinary Watercourse) located approximately 2.9km east of the Main Site in South Tees and which crosses perpendicularly through the Wider Site located approximately;
 - Holme Fleet (Main River) located in North Tees approximately 2km south west of the Main Site and 920m south of the Wider Site; and
 - Ormesby and Normanby Beck (Ordinary Watercourses) both located approximately 2.7km and 1.8km south of the Main Site and Wider Site, respectively in South Tees.
- 3.6.16 There are three Water Framework Directive (WFD) designated surface water, transitional and coastal bodies located within 2km of the Proposed Development:

- The Tees Water Body (transitional waterbody), located immediately adjacent to the east of the Site;
 - The Tees Estuary (S Bank) water body, located at the eastern extent of the Site; and
 - Marton West Beck Catchment, located upstream of the Proposed Development in South Tees.
- 3.6.17 The majority of the Main Site falls within Flood Zone 1 and is at low fluvial and tidal flood risk. Small areas of the Main Site are situated within higher-risk areas classified as Flood Zones 2 and 3, as shown on **Figure 12.5: Flood Mapping (ES Volume II, Application Document Ref. 6.2)**.
- 3.6.18 The EA asset management website [Ref 4] identifies the presence of several flood defence assets near the Proposed Development, one of which intersects the site boundary. This feature is at the edge of the Seal Sands industrial area and an associated breakwater (approximately 5.1km length) that functions as a flood defence, providing partial protection against fluvial and tidal flooding from the River Tees.
- 3.6.19 There are localised areas of low (between 0.1% and 1% chance of flooding each year) to high (greater than 3.3% chance of flooding) surface water flood risk across the Proposed Development.
- 3.6.20 The Main Site is not directly at risk of flooding from reservoirs. However, it lies adjacent to areas identified as being at potential risk under both normal river conditions and combined fluvial-reservoir flood scenarios.
- 3.6.21 Further information on hydrology and flood risk receptors located in the vicinity of the Proposed Development is presented in **Chapter 12: Water Environment (ES Volume I, Application Ref. 6.1)**.

[Geology and hydrogeology](#)

- 3.6.22 The Main Site is underlain by Made Ground. This is likely to comprise both river dredgings and slag fill used for land reclamation, as well as landfill wastes in the west of the Main Site. Additional Made Ground deposits associated with the former industrial land use on the site development may be present beneath the existing hardstanding.
- 3.6.23 The superficial deposits underlying the Proposed Development are Tidal Flat Deposits (estuarine and marine alluvium), comprising sand, silt and clay. It is anticipated that the Tidal Flat Deposits are underlain by Glaciolacustrine Deposits (clay and silt) and Glacial Till Deposits (diamicton).

- 3.6.24 The bedrock beneath the Main Site is the Mercia Mudstone Group, classified by the EA as a Secondary B Aquifer (lower permeability layer yielding a limited amount of groundwater). The Mercia Mudstone is underlain by the Sherwood Sandstone Group, classified as a Principal Aquifer (that is, capable of providing significant groundwater supplies or base flow to rivers, lakes and wetlands).
- 3.6.25 Borehole records show that groundwater is encountered at depths between 1, and 5m. The overall risk of groundwater flooding in Redcar and Cleveland is low.
- 3.6.26 There are two Groundwater Dependent Terrestrial Ecosystems (GDTE) located within the vicinity of the Proposed Development:
- The Teesmouth and Cleveland Coast Ramsar site; and
 - The Teesmouth and Cleveland Coast Site of Special Scientific Interest (SSSI).
- 3.6.27 There are no active or historical groundwater abstraction licences within 1km of the Main Site. The Main Site is also not located within a groundwater source protection zone.
- 3.6.28 The vegetation-covered land in the west of the Main Site is on an historic landfill, formerly known as Seal Sands Waste Disposal Site, previously operated by Cleveland County Council. Land immediately to the north of the Main Site and Wider Site is a closed historical landfill that was previously operated by Imperial Chemical Industries Ltd. There are eight former licensed waste sites within 250m of the Main Site.
- 3.6.29 Further information on the geology and hydrogeology receptors located in the vicinity of the Proposed Development is presented in **Chapter 21: Geology and Soils (ES Volume I, Application Ref. 6.1)** and in **Chapter 12: Water Environment (ES Volume I, Application Ref. 6.1)**.

Noise

- 3.6.30 Residential areas (as detailed previously) are considered to be Noise Sensitive Receptors (NSRs). The nearest NSRs to the Main Site, which will be the source of operational noise, are:
- Saltview Terrace, Port Clarence (2.5km to the south west);
 - Marsh House Farm, Greatham (2.9km to the north west);
 - Properties in South Bank (2.8km to the south);
 - Properties in Cowpen Bewley (3.5km to the west); and

- Properties in Warrenby and Dormanstown (4km to the south east).
- 3.6.31 There are no Noise Important Areas (NIAs) near the Proposed Development.
- 3.6.32 As outlined in **Chapter 10: Terrestrial Ecology (ES Volume I, Application Ref. 6.1)**, there are seven internationally designated sites located within 15km of the Proposed Development, including three Special Protection Areas (SPAs), two Special Areas of Conservation (SACs) and two Ramsar sites. Two of these, Teesmouth and Cleveland Coast SPA (designated under Article 4 of the Birds Directive) and Teesmouth and Cleveland Coast Ramsar, are located immediately adjacent to the Main Site. The new quay within the Main Site is partially located within the boundary of the Teesmouth and Cleveland Coast SPA.
- 3.6.33 Five nationally designated sites are located within 10km of the Proposed Development, including four SSSIs and one NNR. Seven locally designated sites are located within 2km of the Site, all of which are Local Wildlife Sites (LWS). The quay works are located within the Teesmouth and Cleveland Coast SSSI.
- 3.6.34 Noise and vibration impacts upon these ecology receptors, alongside further information on NSRs located in the vicinity of the Proposed Development are presented in **Chapter 9: Noise and Vibration (ES Volume I, Application Ref. 6.1)** and **Chapter 10: Terrestrial Ecology (ES Volume I, Application Ref 6.1)**.

Ecology

- 3.6.35 The Main Site and Wider Site are located within 15km of the following internationally designated conservation sites, as shown on **Figure 3.2: Designated Conservation Sites (ES Volume II, Application Ref. 6.2)**:
- Teesmouth and Cleveland Coast SPA (within the Main Site);
 - Teesmouth and Cleveland Coast Ramsar Site (300m north);
 - North York Moors SPA (11.8km and 10.1km south east of the Main Site and Wider Site, respectively);
 - North York Moors SAC (11.8km and 10.1km south east of the Main Site and Wider Site, respectively);
 - Northumbria Coast SPA (13.7km north west of the Main Site and Wider Site);
 - Northumbria Coast Ramsar site (13.7km north west of the Main Site and Wider Site); and

- Durham Coast SAC (13.6km and 13.7km north west of the Main Site and Wider Site, respectively).
- 3.6.36 There are no proposed Ramsar sites or potential SPAs within 15km of the Proposed Development.
- 3.6.37 The Main Site is located within 15km of the following nationally designated sites:
- Teesmouth and Cleveland Coast SSSI (Main Site and Wider Site are adjacent, and proposed new quay lies within the designation);
 - Teesmouth NNR (900m and 600m north of the Main Site and Wider Site, respectively);
 - Lovell Hill Pond SSSI (7.2km and 5.3km south east of the Main Site and Wider Site, respectively);
 - Saltburn Gill SSSI (13km and 9.7km east of the Main and Wider Site, respectively);
 - Braircroft pasture SSSI (12.6km and 11.8km south west of the Main Site and Wider Site, respectively);
 - Roseberry Topping SSSI (11.5km and 9.9km south east of the Main Site and Wider Site, respectively);
 - North York Moors SSSI (11.7km and 10km south east of the Main Site and Wider Site, respectively);
 - Whitton Bridge Pasture SSSI (12.8km and 12km west of the Main Site and Wider Site, respectively);
 - Langbaugh Ridge SSSI (10km and 11.2km south of the Main Site and Wider Site, respectively);
 - Cliff Ridge SSSI (12.3km and 10.9km south of the Main Site and Wider Site, respectively);
 - Durham Coast SSSI (12km and 12.5km north of the Main Site and Wider Site, respectively);
 - Hart Bog SSSI (13.2km and 13km north west of the Main Site and Wider Site, respectively); and
 - Pike Whin Bog SSSI (13.9km and 13.5km north west of the Main Site and Wider Site, respectively).
- 3.6.38 The following local statutory designated sites are located within 2km of the Site:

- Eston Pumping Station LWS (2.5km east of the Main Site and partially located within the eastern extent of the Wider Site);
 - Coatham Marsh LWS (4km and 790m east of the Main Site and Wider Site, respectively);
 - Greatham Creek North Bank Saltmarsh LWS (1.4km and 1.1km north of the Main Site and Wider Site, respectively);
 - Greenabella Marsh LWS (1.6km and 1.4km north of the Main Site and Wider Site, respectively);
 - Saltern Saltmarsh LWS (2km and 1.7km north west of the Main Site and Wider Site, respectively);
 - Zinc Works Bird Field LWS (2.2km and 1.9km north of the Main Site and Wider Site, respectively); and
 - Teessaurus Park LWS (3.2km and 2.2km west of the Main Site and Wider Site, respectively).
- 3.6.39 The River Tees, a major river, lies adjacent to the east of the Main Site and is crossed by existing infrastructure within the connection corridors. The River Tees is a tidal estuary from the Tees Barrage in Stockton-on-Tees to the mouth of the River Tees at Teesmouth around 4km to the north of the Main Site.
- 3.6.40 The coastline at Tees Bay is approximately 3km to the north east of the Main Site and Wider Site, and is bordered by a coastal dune system, Coatham Dunes, which extends to the south east along the coastline toward Redcar and Seaton Carew dunes extending to the north west towards Hartlepool. The River Tees, Bran Sands, Coatham Dunes and the coastline are within the Teesmouth and Cleveland Coast SPA, Ramsar and SSSI.
- 3.6.41 The Teesmouth and Cleveland Coast SPA, Ramsar and SSSI designations surround the Seal Sands industrial area. Together, the designations cover areas of land to the north, west, east, south and south east of the Main Site including the coastline, and extend to cover the River Tees, Bran Sands Lagoon and the Dabholm Gut. This area includes intertidal sand and mudflat, saltmarsh and freshwater grazing marsh, saline lagoons, sand dunes and shingle, rocky shore and shallow coastal waters that can support national and international bird species.
- 3.6.42 The Main Site is near multiple water bodies and associated nature reserves in North Tees, collectively forming the RSPB Saltholme Nature Reserve including:

- Dorman's Pool Nature Reserve (300m and 80m south west of the Main Site and Wider Site, respectively);
 - Saltholme East Pool Nature Reserve (750m west of the Main Site and 200m south of the Wider Site);
 - Saltholme West Pool Nature Reserve (1km south west of the Main Site and 130m west of the Wider Site); and
 - Paddy's Pool Nature Reserve (1.6km and 700m south west of the Main Site and Wider Site, respectively).
- 3.6.43 These areas of surface water bodies provide a clear separation between the industrial landscape associated with the Main Site and Seal Sands industrial area, and Billingham further to the west.
- 3.6.44 The nearest conservation area is Cowpen Bewley Conservation Area, which is approximately 3.3km and 2.4 km to the north west of the Main Site and Wider Site, respectively.
- 3.6.45 Ecological receptors located within or in the area surrounding the Main Site and Wider Site include:
- Amphibians – habitats within the Site may support amphibians, including Great Crested Newt (GCN) and common toad;
 - Badgers – habitats within the Site support badgers;
 - Bats – habitats within the Site support foraging and commuting bats;
 - Breeding birds – habitats within and adjacent to the Site are considered suitable to support breeding birds;
 - Reptiles – habitats within the Site support reptile species;
 - Otter – terrestrial habitats within the Site are suitable for commuting otter;
 - Brown Hare – habitats within the Site have suitability for brown hare;
 - Water vole – watercourses within and adjacent to the utility connection corridors are suitable for water vole;
 - Wintering birds - habitats within and adjacent to the Site are considered suitable to support wintering birds; and
 - Terrestrial invertebrates – habitats within the Site are considered to have high value for invertebrates supporting nationally important species.

- 3.6.46 Further details on ecological sites and surface water bodies can be found in **Chapter 10: Terrestrial Ecology (ES Volume I, Application Document Ref. 6.1)**, **Chapter 11: Freshwater and Marine Ecology (ES Volume I, Application Document Ref. 6.1)** and **Chapter 12: Water Environment (ES Volume I, Application Document Ref. 6.1)**.

Traffic and transport

- 3.6.47 The Main Site is connected to the public highway network via the private Seal Sands Road which joins the public highway network at Seal Sands Roundabout where it meets Seaton Carew Road (A178). From this roundabout, Seaton Carew Road (A178) runs north to Hartlepool and south to Port Clarence. The western arm of this roundabout connects to the A1185 which links the Seal Sands industrial area to the trunk road network via the A689 and A19 north of Billingham. The A19 provides north-south links into the strategic road network; including Hartlepool, Peterlee and Sunderland to the north, Darlington to the south west via the A66, and to Thirsk and York and the A1(M) to the south.
- 3.6.48 Darlington Station is located approximately 25km to the south west and is on the East Coast Main Line which provides north-south rail links to London King's Cross and to Durham, Newcastle and Scotland. Darlington Station is connected to Stockton-on-Tees and Billingham via the Durham coastline which connects Stockton to Newcastle via Hartlepool and Sunderland.
- 3.6.49 The Main Site is not crossed by any Public Rights of Way (PRoW). The route of the King Charles III England Coast Path passes close to the western boundary of the Proposed Development as it follows the A178 in a north-south direction. In South Tees, the routes of the King Charles III England Coast Path and the Teesdale Way run close to the Proposed Development Boundary. The RCBC Public Mapping Application [Ref 5] also shows a Public Footpath in Redcar and Cleveland which runs from the end of Tees Dock Road to the eastern end of the Dabholm Gut and crosses the Proposed Development boundary. This route includes:
- Footpath 116/31, which runs along and crosses the route of the pipeline before heading south west towards Tees Dock Road and footpath 102/2;
 - Footpath 102/2 runs approximately south west to north east in parallel to the internal Teesport private access road; and
 - Bridleway 116/9 follows the alignment of a rail line in parallel to footpath 102/2.

3.6.50 There is no cycling infrastructure on Seal Sands Road. The road is private east of the western end of the Main Site at National Grid coordinates NZ 51556 23660. However, the A178, Seaton Carew Road, is classed as an advisory cycle route.

3.6.51 Further information on receptors relevant to traffic and transport located in the vicinity of the Site is presented in **Chapter 18: Traffic and Transport (ES Volume I, Application Ref. 6.1)**.

[Landscape and visual amenity](#)

3.6.52 The Site lies within National Character Area Profile 23 (NCA 23): Tees Lowlands, as defined by Natural England. This forms a broad, open plain dominated by the meandering lower reaches of the River Tees and its tributaries, with wide views to distant hills. The large conurbation around the Lower Tees and Teesmouth contrasts with the rural area to the south and west, which is largely agricultural in character.

3.6.53 A small part of the Site, namely the quay and the dredging works, lies within the Marine Character Area 22 (MCA 22): Tyne, Tees and Wear Estuaries and Coastal Waters. The key characteristics of MCA 22 include extensively developed lowland coast, tidal rivers extending inland, busy coastal waters and shipping lanes to two main ports (Port of Tyne and Teesport), brightly lit industrial area and ecologically diverse and internationally and nationally important habitats and rare species.

3.6.54 There are three published Landscape Character Assessments within 2km of the Proposed Development:

- Stockton-on-Tees Landscape Character Assessment (covering area to the west of the Proposed Development);
- Redcar and Cleveland Landscape Character Assessment (covering area to the east of the River Tees); and
- Hartlepool Landscape Character Assessment (covering area to the north of Greatham Creek).

3.6.55 The effects of the Proposed Development on landscape and visual amenity are considered in **Chapter 13: Landscape and Visual Amenity (ES Volume I, Application Ref. 6.1)**.

References

- Ref 1 HM Government (2015) The Control of Major Accident Hazards Regulations 2015. Available online: <https://www.legislation.gov.uk/ukxi/2015/483/contents> [Accessed April 2026]
- Ref 2 HM Government (1996) The Pipelines Safety Regulations 1996. Available online: <https://www.legislation.gov.uk/ukxi/1996/825/contents> [Accessed April 2026]
- Ref 3 Environment Agency (2024) Environmental Permitting Regulations – Installations. Available online: <https://environment.data.gov.uk/public-register/view/search-industrial-installations> [Accessed July 2025]
- Ref 4 Environment Agency (n.d.). Asset Management. Available online: <https://environment.data.gov.uk/asset-management/index.html> [Accessed June 2026]
- Ref 5 RCBC Public Mapping Application (n.d.). Available online: <https://rcbc.maps.arcgis.com/apps/webappviewer/index.html?id=e079efdf004c415792af971aa189132b> [Accessed June 2026]



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