TEESWORKS

DORMAN POINT ENVIRONMENTAL STATEMENT

VOLUME 2: CHAPTER D BIODIVERSITY AND ECOLOGY

DECEMBER 2020

Dorman Point

Volume 2: Environmental Statement (December 2020)

Chapter D: Biodiversity and Ecology

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Contents

D1.0 Introduction

D1.1 This Chapter of the Environmental Statement ('ES') has been prepared by INCA on behalf of the applicant, South Tees Development Corporation ('STDC'). It assesses the proposed development described in Chapter B and it considers the effects of the proposed development on the ecology and biodiversity issues within and surrounding the site.

D1.2 The baseline situation is considered before the likely environmental effects of the development are identified, both during construction and operational phases of the development. Mitigation measures to reduce any negative environmental effects are identified as appropriate, before the residual environmental effects are assessed.

D1.3 This Chapter is supported by the following technical appendices:-

1 Appendix D1 Biodiversity Metrics – Proposed Tees Estuary Partnership definitions

2 Appendix D2 INCA Report 201814 Preliminary Ecological Appraisal – Grangetown Prairie

3 Appendix D3 Environmental DNA survey for Great Crested Newt

4 Appendix D4 Preliminary Ecological Appraisal – Holme Beck

5 Appendix D5 UK Habitat Classification – habitat survey map

About the Author

D1.4 This chapter has been written by Ian Bond CEnv MCIEEM, who is an ecologist with INCA. He has a first-class honours degree in Environmental Biology and over 20 years' experience of working in an ecological role on Teesside. This includes 12 years as a local authority ecologist, which involved reviewing EIAs. His specialist interests are mammals, amphibians and reptiles and he was the editor of the reference book for those taxa in north east England.

D1.5 The Habitats Regulations Assessment has been written by Mike Leakey. He has almost 30 years' experience of working in an ecological role on Teesside. This has principally been with Natural England and its predecessor bodies and included the assessment of numerous EIAs and HRAs. His specialist interest is ornithology and he was the co-ordinator of the Wetland Bird Survey scheme on Teesmouth for over 20 years and is currently the British Trust for Ornithology ('BTO') regional representative for Cleveland.

D1.6 The chapter has been reviewed by Dr Robert Woods ACIEEM, who is INCA Director and prior to that an ecologist with INCA. He has a post graduate diploma in Ecology from Oxford University and is an authority on Lepidoptera, including being the official moth recorder for VC62, the vice county of North-east Yorkshire, which includes South Tees.

D2.0 Policy Context

Legislation

D2.1 The following legislation is relevant to this chapter:

a The Conservation of Habitats and Species Regulations 2017 [i] (hereafter referred to as 'Habitats Regulations');

b Wildlife and Countryside Act (WCA) 1981 (as amended) [ii]; and

c Natural Environment and Rural Communities (NERC) Act 2006 [iii].

D2.2 The Environment Bill 2019-2021 [iv] is currently going through Parliament. The Bill as it stands includes a provision that Biodiversity Net Gain ('BNG') should be made a condition of the grant of planning permission. This will require developers to provide evidence of BNG, likely to be of a minimum 10%. It is understood that this will be demonstrated by the use of a Biodiversity Metric ('BM') developed by Defra. Once the Bill has received Royal Assent, there will be a two year transition before BNG is required to be implemented.

D2.3 BNG is not yet, therefore, mandated through adoption of the Environment Bill and is expected to become mandatory in early 2023. It is the intention that the Environment & Biodiversity Strategy being developed by STDC to support the South Tees Area Supplementary Planning Document will align with the requirements of the Environment Bill. It is expected that the Strategy will identify habitat enhancement schemes within and beyond the Teesworks area that can contribute towards BNG in future and provide a means of compensating habitat loss occurring from development schemes that proceed ahead of its finalisation.

D2.4 Until the Environment Bill is enacted and reflected in national policy, full weight should be given to the policies of the Redcar and Cleveland Local Plan, 2018 [v].

Planning Policy

D2.5 The following planning policies are relevant to this assessment:

i Redcar and Cleveland Borough Council ('RCBC') Local Plan (statutory policy) [v];

ii National Planning Policy Framework ('NPPF') [vi]; and

iii South Tees Area Supplementary Planning Document ('SPD') 2018 (non-statutory policy/ material planning consideration) [vii];

Guidance

D2.6 Guidance relevant to this assessment comprises:

a Guidelines for the Selection of Local Wildlife Sites (LWS) in the Tees Valley [vii]; and

b South Tees Regeneration Master Plan.

D3.0 Assessment Methodology & Significance Criteria

Assessment Methodology

Identification of Valued Ecological Receptors

D3.1 This section sets out the methods used in assessing the total biodiversity value of the site and in identifying the potential for any Valued Ecological Receptors ('VER') to be present or impacted by the proposed development. The following VERs have been considered in this assessment:

i Statutory designated sites;

ii Non-statutory designated sites;

iii Priority Habitats, which are those habitats listed under Section 41 of the Natural Environment and Rural Communities Act (2006) as being of principal importance for the conservation of biodiversity in England.

iv Habitats of local importance, for example those for which Local Wildlife Sites could be designated;

v Protected species;

vi Priority Species, which are those species listed under Section 41 of the Natural Environment and Rural Communities Act (2006) as being of principal importance for the conservation of biodiversity in England. (NB. Certain species are listed as Priority Species solely because their status requires further research rather than because they are a known conservation priority; these include some widespread moth and butterfly species. Those species are not considered individually in this assessment).

vii Any other species or habitats which have been identified as being important in a local context.

D3.2 The presence or potential presence of Invasive Non-Native Species (INNS) has also been described under Section D4.0 Baseline Conditions.

Zone of Influence

D3.3 In assessing the impacts of a proposal the geographical extent over which those impacts on VERs might potentially be significant needs to be considered; this is referred to as the Zone of Influence ('ZOI'). The ZOI for the proposed development will vary depending on specific factors such as the ecology of the receptor, the sensitivity of the receptor to the potential impacts of the proposed development and potential pathways to the receptor. The conservation importance of the receptor also influences the extent of the ZOI, for example, the ZOI over which potential impacts on internationally designated sites would be much greater than that of widespread habitats and species. For the purposes of this assessment, the following ZOIs have been used.

i internationally designated sites - 10km from the closest site perimeter;

ii nationally designated sites – 5km from the closest site perimeter;

iii locally designated sites and Priority Habitats – 2km from the closest site perimeter;

iv protected species and Priority Species – the ZOI is dependent in part on the dispersal ability of the species, i.e. its potential to reach the site from its closest

breeding population, therefore the ZOI is considered individually for each species in terms of its proximity to the site; and

v widespread species and habitats – site only.

Sources of information

D3.4 Assessment of the ecological value of the site involved a combination of a desk study of available information and site visits.

Desk Study

D3.5 The desk study is based principally on data collected by INCA, which has carried out ecological surveys across almost all of the industrial land in the wider South Tees area over more than a 20 year period, including the entirety of the Teesworks area. INCA has effectively been the only organisation collecting ecological data at Dorman Point, accumulating a significant number of species records relevant to the site and the surrounding area. Therefore, it was considered more appropriate to use INCA data for this report than to consult the Environmental Records Information Centre North East.

D3.6 An up to date list of Local Sites and Local Nature Reserves within the borough has been obtained from Redcar and Cleveland Borough Council.

D3.7 Information on statutory designated sites has been obtained directly from Natural England.

Site visits

Preliminary Ecological Appraisal

D3.8 In 2018, INCA undertook a Preliminary Ecological Appraisal of the entire site, including a small area on the north west of the former Grangetown Prairie, which is immediately adjacent but outside of the site. This was reported to STDC as INCA Report 201814 and is provided as appendix D2 to the ES.

D3.9 The entire site was walked and the habitats and key features of ecological interest within the site were noted. All buildings on the site were inspected for their potential to support roosting bats. No specific surveys for species were carried out other than an environmental DNA (eDNA) test for Great Crested Newts. Instead the site was assessed for its potential to support protected or priority species and any anecdotal species records were noted.

D3.10 The eDNA test for Great Crested Newts was undertaken using the established methodology (Biggs et al, 2014) [x]) with a total of 20 water samples being taken. The standing waterbodies were in close proximity to each other with no more than 50m between any two waterbodies and in most cases only a matter of a few metres separating them. They were therefore considered as effectively being one breeding area for any population of amphibians that might be present. Samples were taken from the larger concrete-lined pond and the three largest, shallow pools, with the resulting 20 samples being combined.

D3.11 The results were sent off for analysis by SureScreen Scientifics, which is an accredited company for carrying out analysis of GCN eDNA.

D3.12 Both the habitat survey and eDNA survey were undertaken in May 2018, which is an optimal time for both types of survey. The surveys were undertaken by Ian Bond, Ecologist with INCA. It was possible to inspect the entire site and it is considered that there were no constraints that would have affected the results of the survey. The results of the survey are provided at Appendix D3 to the ES.

Habitat Assessment

D3.13 A series of habitat surveys were undertaken by INCA over several dates in summer 2019. The purpose of these surveys was to characterise the habitats in line with the UK Habitats Classification, to provide further definition on boundaries between habitats using that classification system and to undertake further assessment of the condition of each habitat. The entire site was walked and the habitat types were identified and mapped. No surveys were undertaken for species during the habitat surveys but any significant observations on species were noted. A habitat survey map using the UK Habitats Classification system is provided at Append D5 to the ES.

Survey of Holme Beck

D3.14 In February 2020, INCA undertook a Preliminary Ecological Appraisal of the section of Holme Beck that runs unculverted through the site. This was reported to STDC as INCA report 201814 and is provided at Appendix D4 to the ES. The survey was undertaken by Ian Bond, Ecologist with INCA.

Ecological Clerk of Works

D3.15 The entire site was visited by INCA whilst undertaking an Ecological Clerk of Works ('ECoW') role overseeing vegetation clearance in 2020. The ECoW role involved a total of 12 visits over the period May-July 2020, with some parts of the site being visited on several occasions. The role principally consisted of checking for nesting birds and while a systematic breeding bird survey wasn't carried out, the level of inspection ensured that a very good approximation of the avifauna of the site was obtained. As with previous site visits, no targeted surveys were carried out for species but any significant observations on species or habitats were noted. The ECoW role was principally undertaken by Phil Roxby, Ecologist with INCA. He has 20 years' experience of working in an ecological role, including 16 years as a Local Authority Ecologist in the Tees Valley. He was assisted by Ian Bond and Mike Leakey, Ecologists with INCA

Evaluation and Assessment

D3.16 In writing this chapter reference has been made to the Chartered Institute of Ecology and Environmental Management ('CIEEM') guidelines for Ecological Impact Assessment ('EcIA') [ix]. Whilst these are the current best practice guidelines, they provide guidance for practitioners to refine their own approach.

D3.17 The assessment process involves:

i Identifying and characterising impacts;

ii Incorporating measures to avoid and mitigate (reduce) these impacts;

iii Assessing the significance of any residual effects after mitigation;

iv Identifying appropriate compensation measures to offset significant residual effects; and

v Identifying opportunities for ecological enhancement.

D3.18 Impacts are actions that result in changes either positive or negative to ecological features. Effects are the outcomes for those features. Both positive and negative impacts of the proposed development are identified within this assessment and defined in terms of their impacts on ecological features.

Significance Criteria

D3.19 The assessment of the significance of effects on VERs includes consideration of the geographic importance of the VER and the magnitude of the effect. The extent of the effects on the receptor is determined, taking into account the nature of the impacts and the sensitivity of the receptor to those impacts.

D3.20 In this assessment the following definitions of geographic importance have been used:

i International – Sites designated under European regulations or international conventions, including Special Protection Areas, Special Areas of Conservation and Ramsar sites. Populations of species or assemblages of species, which are important in an international context;

ii National – Sites designated under UK legislation, i.e. Sites of Special Scientific Interest and National Nature Reserves. Populations of species or assemblages of species, which are important in a national context;

iii Regional – Populations of species; assemblages of species or habitats, which are important in a north east England context;

iv County– Tees Valley Local Wildlife Sites and Local Geological Sites i.e. populations of species; assemblages of species or habitats, which meet the published criteria for designation as a Local Wildlife Site. Populations of species; assemblages of species or habitats, which are important in a Tees Valley context;

v Local – Local Nature Reserves. Populations of species; assemblages of species or habitats, which are important in the context of the RCBC area or which are important to the ecological integrity of the local area beyond the site itself;

vi Site - Populations of species; assemblages of species or habitats, which are important only in the context of the development site itself; and

vii Negligible – Populations of species; assemblages of species or habitats, which make no substantive contribution to nature conservation.

D3.21 Professional judgement is used in relation to the nature of the impacts, the sensitivity and the geographic importance of the VER to determine the significance of the effect. Significant effects have been assessed and qualified with reference to the appropriate geographic scale. For example, if an impact would lead to an effect that meant a VER of County importance would be affected to the extent that it would afterwards be classified as of Local importance, this would be a significant effect. However, if an impact would lead to an effect that affected a VER of County importance, but not to the extent that its geographic importance would change, this would be classified as not significant. Whether effects are significant at the local scale, particularly in view of policies for no net loss of biodiversity, have also been assessed. European case law is specific regarding significance in relation to European sites and Annexed habitats. However, the scale of significance of an effect may not be the same as the geographic context in which the feature is considered important. For example, an effect on a species which is on a national list of species of principal importance for biodiversity may not have a significant effect on its national population.

D3.22 In assessing the scale of the effects of the proposed development on VERs, the geographic definitions are applied to the EIA terminology used throughout the ES as follows:

1 Substantial – Effects on VERs of international, national or regional importance;

2 Moderate – Effects on VERs of County importance;

3 Minor – Effects on VERs of Local importance;

4 Negligible – effects on VERs of Site or Negligible importance and

5 Neutral – no effects.

D3.23 These terms will be applied to both beneficial and adverse effects.

D3.24 In relation to the terminology at paragraph D3.22 Substantial and Moderate effects are considered to be significant, whilst Minor, Negligible and Neutral effects are considered to be Not Significant in EIA terms.

D3.25 Section 4.0 Baseline Condition, lists all VERs that are found in the wider Teesside area and which therefore need to be considered in relation to their potential to be affected by the proposed development.

D3.26 Only those VERs which are of Local importance or above, which are considered to be present or likely to be present or have the potential to be otherwise affected by the proposed development are considered in the assessment of Significant effects.

D3.27 Effects on VERs of Local importance, while not classed as Significant in themselves, have the potential to be Significant on the basis of cumulative effects if more than one VER of the same type is affected, hence are included in the assessment. Effects on VERs of Site or Negligible importance are considered not to have the potential to be Significant on the basis of cumulative effects hence are scoped out of further assessment.

Consultation

D3.28 A steering group was established to discuss the wider Environment & Biodiversity Strategy for the South Tees Regeneration Masterplan. The first of these meetings was held on 12 March 2020 and was attended by representatives from STDC, Faithful and Gould (F+G), INCA, Natural England, RCBC, Environment Agency, Arup and Lichfields. This planning application was not discussed at the meeting, however principles of the wider strategy, which are relevant to the planning application, were discussed.

D3.29 During the determination of the outline planning application for the South Bank site (app. ref R/2020/0357/OOM), discussions were had with Natural England the Environment Agency including the use of the South Tees Regeneration Master Plan Environment & Biodiversity Strategy to deliver the compensation required for any significant residual effects and the precautionary approach taken to the assessment of specific ecological features such as wintering birds, invertebrates and habitats. Discussions were also had as to how any direct mitigation necessary to protect the qualifying features of the Teesmouth and Cleveland Coast SSSI, SPA, and Ramsar sites can be secured through the grant of planning permission and suitable conditions thereon. The same approach is to be taken with this application.

D3.30 Lichfields has consulted with Redcar and Cleveland Borough Council (RCBC) on the scope of the ES in the form of an informal scoping note. The note, which sets out the overall approach to scoping, has been agreed as acceptable by RCBC via email (the note and correspondence is provided at Appendix A2 of the ES).

D3.31 Informal consultation via email was undertaken with Tees Valley Wildlife Trust to inform them of the proposal and to seek their views on whether there were any VERs that they considered merited particular attention. A response is awaited as of the date of this report.

Assumptions and Limitations

D3.32 The 2018 PEA for Grangetown Prairie, of which area the site forms part, concluded that: *"Other than breeding birds it is considered unlikely that any protected species would be present on the*

site therefore no further, specific surveys for protected species are recommended prior to submission for planning permission."

D3.33 Other than for Great Crested Newts, for which an eDNA survey formed part of the 2018 PEA, no targeted surveys have been undertaken for any protected or priority species. Ecological surveys that have been undertaken have concentrated on characterising the habitats on site. Nevertheless those surveys have been carried out at optimal times of year for identifying most VERs and any such that were observed were noted. In addition, carrying out an ECoW role primarily to avoid impacts on nesting birds over a series of 12 visits has arguably given a better approximation of the nesting bird fauna than would a nesting bird survey using the standard methodology based on three visits.

D3.34 The "brownfield" conditions on Teesside have characteristic suites of habitats and species due to having had similar historical treatments producing similar edaphic and topographical conditions. Based on INCA's 30 years' experience of surveying the industrial sites on Teesside, these suites of habitats and species are with few exceptions relatively predictable. As such and where detailed survey information is lacking, assumptions of likely presence/absence of species have been made based on the habitat surveys and on INCA's experience. An estimation of the likely size of the population of each species and hence the assessment of its geographical significance, has been based on the amount of suitable habitat for that species.

D3.35 The assessment assumes that all habitats, in their current state within the 'Potential Development Area' as shown on the Parameter Plan (included at Appendix B3) on the site will be lost during the construction phase, with the exception of Holme Beck a section of which may be diverted.

D4.0 Baseline Conditions

Existing Conditions

D4.1 This section sets out a summary of the results of the relevant baseline ecological survey work and desk study. It then goes on to evaluate the importance of the identified ecological features.

Internationally designated sites

D4.2 There are four internationally designated sites within a 10km radius of Dorman Point; the Teesmouth and Cleveland Coast Special Protection Area ('SPA') and the Teesmouth and Cleveland Coast Ramsar site; the North York Moor SPA and the North York Moors Special Area of Conservation ('SAC'). SPAs are designated under the EU Wild Birds Directive and SACs under the EU Habitats Directive. Ramsar sites are wetlands of international importance designated under the Ramsar Convention on Wetlands but which are afforded the same level of protection in policy terms in respect of new development as European sites. The Teesmouth and Cleveland Coast Ramsar site shares the same boundary as the Teesmouth and Cleveland Coast SPA except where the SPA includes a marine component. The intertidal element of the Teesmouth and Cleveland Coast SPA is also classed as a European Marine Site and shares its interest features with the SPA. The location, distance from Dorman Point, main interest features and size for each site is given in Table D4.1.

Table D4.1 Internationally designated sites in relation to Dorman Point

Site	Approx. Distance (km)	Map Ref	Main Ecological Interest	Area (ha)
Teesmouth and Cleveland Coast SPA	1.1 N	various	Wintering and passage waterbirds, breeding populations of Avocet, Common Tern, Little Tern	12226.28
Teesmouth and Cleveland Coast Ramsar	1.6 NW	various	Waterbirds, breeding populations of Avocet, Common Tern, Little Tern	2094.02
North York Moors SPA	9.0 km S	NZ591126	Breeding Golden Plover and Merlin	44094.98
North York Moors SAC	9.0 km S	NZ591126	Wet Heath; Dry Heath; Blanket Bog	44053.29

Teesmouth and Cleveland Coast SPA

D4.3 The Teesmouth and Cleveland Coast SPA was first classified in 1995 for its numbers of European importance of breeding little tern *Sternula albifrons,* passage Sandwich tern *Thalasseus sandvicensis*, wintering red knot *Calidris canutus* and passage common redshank *Tringa totanus,* as well as an assemblage of over 20,000 waterbirds. The SPA was updated in 2000 to include additional areas of coastal and wetland habitats important for waterbirds.

D4.4 As of the commencement of a formal consultation in 2019, the SPA was further extended to include at sea foraging areas for breeding little tern and breeding and foraging areas for common tern *Sterna hirundo*, the latter being proposed as a new qualifying feature in the light of recent increases in the size of the breeding population within the site. The extension includes additional areas of terrestrial habitats such as wet grassland, saltmarsh, deep and shallow pools and intertidal areas important for other foraging and roosting waterbirds which were existing

features of the SPA. Non-breeding Ruff *Calidris pugnax* and breeding pied avocet *Recurvirostra avosetta* have also been added as new qualifying features of the SPA.

D4.5 The boundary of the SPA extension covers an area from Castle Eden Denemouth in the north to Marske-by-the Sea in the south and includes the River Tees up to the Tees Barrage resulting in a revised SPA area of 12,226.28 ha. This increases the area of the existing SPA (1,251.50 ha) by 10,974.78 ha. The seaward boundary has been drawn to include waters out to around 3.5km from Crimdon Dene, to include the areas of greatest importance to the little terns at that colony, and out to around 6km offshore further south to include the areas of greatest importance to the common terns at the Saltholme colony.

Teesmouth and Cleveland Coast Ramsar

D4.6 The existing Teesmouth and Cleveland Coast Ramsar boundary has also been extended, as with the SPA, to include the additional terrestrial wet grassland, saltmarsh, deep and shallow pools and intertidal areas for breeding and non-breeding waterbirds. Historically the Teesmouth SPA and Ramsar have effectively shared the same boundary and interest features however the Ramsar extension will only cover those terrestrial extension areas of the SPA down to Mean Low Water and will not extend outside of the SPA extension. Although not a qualifying feature the Ramsar site citation recognises that the site supports a rich assemblage of invertebrates, including the following seven Red Data Book species: *Pherbellia grisescens, Thereva valida, Longitarsus nigerrimus, Dryops nitidulus, Macroplea mutica, Philonthus dimidiatipennis* and *Trichohydnobius suturalis.*

D4.7 The qualifying features for the Teesmouth and Cleveland Coast SPA/Ramsar are given in Table D4.1. The number of birds in the Ramsar assemblage is greater than for the SPA as it includes mute swan *Cygnus olor* and greylag goose *Anser anser,* both of which are resident all year; the SPA only including migratory and wintering waterbirds.

North York Moors SPA

D4.8 The North York Moors site qualifies by supporting breeding populations of European importance of the following species listed on Annex I of the Directive:

- Golden Plover *Pluvialis apricaria*, 526 pairs representing at least 2.3% of the breeding population in Great Britain
- Merlin *Falco columbarius*, 40 pairs representing at least 3.1% of the breeding population in Great Britain.

North York Moors SAC

D4.9 The Annex 1 habitats that are a primary reason for selection of this site are Northern Atlantic wet heaths with *Erica tetralix* and European Dry Heaths. Blanket bog is another qualifying feature although not a primary reason for selection. The site is the largest continuous tract of upland heather moorland in England with the wet heath predominantly on the eastern and northern moors where the soil is less free-draining.

Nationally Designated Sites

D4.10 There are two nationally designated sites within a 5km radius of the proposed development site; Teesmouth & Cleveland Coast Site of Special Scientific Interest ('SSSI') and Teesmouth National Nature Reserve ('NNR'). The NNR is a sub-set of the SSSI and comprises two parts; the intertidal mudflats at Seal Sands and the dunes and grazing marshes around North Gare. As it

is a part of the SSSI with the same interest features then it is not described or assessed separately in this chapter.

D4.11 The Teesmouth and Cleveland Coast SSSI is an amalgamation and rationalisation of the seven SSSIs which were formerly present in the Teesmouth area. It extends the original SSSIs geographically to underpin the non-marine elements of the extension to the Teesmouth and Cleveland Coast SPA and Ramsar (the SPA) and includes some additional areas that are outside of the SPA as well as adding new interest features. The Teesmouth and Cleveland Coast SSSI was confirmed by Natural England in January 2019. The interest features of the SSSI and their relation to Dorman Point are shown in Table D4.2.

Table D4.2 SSSI interest features in relation to the Dorman Point

Qualifying feature	Principal locations with respect to Dorman Point	Distance to Dorman Point (km)
Jurassic Geology	Redcar Rocks	6.7 NE
Quaternary Geology	Seaton Carew	10.3 N
Saltmarsh	Confined almost entirely to the Greatham Creek area north of the Tees. There is a very small amount at Bran Sands	6.1 NW Greatham Creek 4.9 N Bran Sands
Sand Dunes	Coatham – South Gare to Coatham Common, Seaton Dunes in Hartlepool.	5.2 N Coatham Dunes 6.2 N Seaton Dunes
Harbour Seal	Present in the estuary and river. Hauls out on Seal Sands and Greatham Creek. There are no haul out locations south of the Tees	4.4 NW Haul-out
Breeding Birds	Present on all areas of suitable wetland habitat. South of the Tees, Coatham Marsh and South Gare are the key areas.	4.5 NE Coatham Marsh 4.7 N South Gare
Non -breeding Birds	Present on intertidal, freshwater and marine areas. North Tees Mudflats is the closest site holding significant numbers.	1.6 NW
Invertebrate Assemblage	Coatham Dunes is of particular importance	5.2 NW

D4.12 The Teesmouth and Cleveland Coast SSSI is an extensive mosaic of coastal and freshwater habitats centred on the Tees Estuary, including sand dunes, saltmarsh, mudflats, rocky and sandy shore, saline lagoons, grazing marshes, reedbeds and freshwater wetlands. These habitats support rich assemblages of invertebrates, breeding seals and large numbers of breeding and non-breeding seabirds and waterbirds. The site is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:

Jurassic Geology

D4.13 The foreshore between Redcar Rocks and Coatham Rocks provides exposures of parts of the Lower Jurassic succession that are otherwise unexposed in the Cleveland Basin. These complement the younger Lower Jurassic successions exposed further south in Robin Hood's Bay and are sedimentologically distinct from rocks of the same age to the south of the Market Weighton Axis. The sequence of ammonite assemblages that occur here indicates that the succession is very complete and may provide a key for the comparison of other Hettangian and Sinemurian successions in the Northwest European Province.

Quaternary Geology

D4.14 Tees Bay includes a feature known as the 'submerged forest' which has been well studied on the foreshore at Hartlepool between Carr House Sands and just north of Newburn Bridge but which is also exposed south of Teesmouth on the foreshore at Redcar. On the Hartlepool foreshore there is complex of peats, estuarine and marine sediments deposited during the Holocene, which overlie glacial deposits from the last Ice Age. Within the peats there are tree stumps and branches. This sequence is also rich in fossils and contains archaeological evidence from the Mesolithic to the Romano-British periods. The palaeoenvironmental records at Hartlepool indicate changes in sedimentation due to fluctuations in relative sea level during the mid-Holocene, from approximately 7,000 to 3,000 years BP. The location of Hartlepool on the fulcrum between areas of crustal uplift to the north and subsidence to the south makes these sediments crucial in interpreting Holocene sea level change.

Saltmarsh

D4.15 The Tees Estuary supports the largest area of saltmarsh between Lindisfarne and the Humber Estuary. Its saltmarshes show a succession of vegetation types, from pioneer marshes of glasswort *Salicornia* species and annual sea-blite *Suaeda maritima*, through common saltmarsh-grass *Puccinellia maritima* communities, to stands dominated by common couch *Elytrigia repens* and its hybrid with sea couch *Elytrigia atherica, Elytrigia x drucei*, at the limit of tidal influence. The common saltmarsh-grass communities are diverse and sea aster *Aster tripolium*, common sea-lavender *Limonium vulgare* and thrift *Armeria maritima* provide a colourful late summer display.

Sand Dunes

D4.16 The SSSI supports an extensive complex of dunes flanking both side of the Tees Estuary. It is the largest dune complex between Druridge Bay (Northumberland) and Spurn Point (East Yorkshire). There are two main dune systems: Seaton Dunes to the north of the Tees, and Coatham Dunes to the south. The dunes support a large area of semi-natural vegetation including the typical succession from strandline vegetation, occasionally including sea sandwort *Honckenya peploides* and sea rocket *Cakile maritima*, through foredunes of sand couch *Elytrigia juncea* and mobile dunes dominated by both marram *Ammophila arenaria* and lyme-grass *Leymus arenarius*, to fixed dune grassland with diverse swards, where herbs such as common bird's-foot trefoil *Lotus corniculatus*, lady's bedstraw *Galium verum*, fairy flax *Linum catharticum* and common restharrow *Ononis repens* form a prominent component. The fixed dunes also support a number of scarce and threatened species, including purple milkvetch *Astragalus danicus*. There are a number of damp depressions in both dunes ('slacks'), which support a range of wetter vegetation types. A particularly prominent feature of some of the slacks are large and colourful stands of marsh orchids *Dactylorhiza* species and their hybrids. Some of the slacks show affinities with saltmarsh vegetation, with salt-tolerant species such as saltmarsh rush *Juncus gerardii*, sea plantain *Plantago maritima* and sea milkwort *Glaux maritima*. More consistently wet slacks support swamp communities. The dunes also show transitions to wetter habitats and saltmarsh.

Harbour Seal

D4.17 Harbour seals *Phoca vitulina* (also known as common seal) have lived at the mouth of the River Tees for hundreds of years but were lost from the estuary for much of the 20th Century, principally due to pollution. They recolonised the estuary in the 1980s and have subsequently established a regular breeding colony which is the only pupping site in north-east England. Harbour seals are present in the estuary and the tidal Tees throughout the year, with regular

haul outs at Greatham Creek and Seal Sands. Pupping tends to occur in June and July on the intertidal mud of Seal Sands.

Breeding Birds

D4.18 The SSSI supports nationally important numbers of three breeding species: pied avocet *Recurvirostra avosetta*, little tern *Sternula albifrons* and common tern *Sterna hirundo*. Avocets and common terns both nest within the SSSI. Little terns from a large nearby colony at Crimdon (in the adjacent Durham Coast SSSI) use the SSSI for foraging and pre- and post-breeding gatherings, with only occasional recent nesting attempts. The extensive sand dunes, saltmarshes and wetlands across the site support a diverse assemblage of breeding birds. This includes a number of scarce and declining species, such as shoveler *Spatula clypeata,* pochard *Aythya ferina*, ringed plover *Charadrius hiaticula* and little ringed plover *Charadrius dubius*.

Non-breeding Birds

D4.19 The extensive areas of open water, grazing marsh and intertidal habitats within the site provide safe feeding and roosting opportunities for large numbers of waterbirds throughout the year. The SSSI is of special interest for its non-breeding populations of ten species (shelduck *Tadorna tadorna*, shoveler, gadwall *Mareca strepera,* ringed plover, knot *Calidris canutus*, ruff *Calidris pugnax*, sanderling *Calidris alba*, purple sandpiper *Calidris maritima*, redshank *Tringa totanus*, Sandwich tern *Thalasseus sandvicensis*) and an assemblage of over 20,000 non-breeding waterbirds. The assemblage comprises a wide variety of waterbirds, including (in addition to the aforementioned species that are reasons for notification in their own right), large numbers of wigeon *Mareca penelope,* lapwing *Vanellus vanellus*, black-headed gull *Chroicocephalus ridibundus* and herring gull *Larus argentatus*. Shoveler, gadwall and ruff are predominantly associated with the extensive freshwater wetlands of the site, while ringed plover, knot, sanderling, purple sandpiper and Sandwich tern mostly use the open coast. Redshank are widespread across the site, but the greatest foraging concentrations occur, along with the largest numbers of shelduck, on the intertidal mud of Seal Sands and Greatham Creek. Seal Sands and Bran Sands are also regularly used by ringed plover and knot.

Invertebrate Assemblage

D4.20 The extensive complex of sand dunes within the SSSI supports a nationally important invertebrate assemblage, including at least 14 threatened species. The assemblage is diverse and makes use of a wide range of niches, with a strong dependency on open but consolidated sand exposures within which to nest and hunt, as well as on flower-rich swards for nectar and pollen gathering. The assemblage does not include a high number of rarities but is a good example of its type in the north of its range. As such, species such as the tephritid fly *Acanthiophilus helianthi*, whose larvae feed within the capitula of carline thistle, occur towards the northern edge of their British range. The grayling butterfly *Hipparchia semele* is found here and remains a scarce species on this north-eastern coastal strip.

Locally Designated Sites

D4.21 There are no locally designated sites within 2km of the site boundaries.

Protected Species

Great Crested Newt *Triturus cristatus* (GCN)

D4.22 The eDNA survey of the ponds at Dorman's Point in 2018 proved to be negative for GCN.

D4.23 INCA carried out GCN surveys of all of the waterbodies on the Teesworks area in 2007 and of four ponds at Teesport in 2005. All proved to be negative for GCN. INCA has also undertaken eDNA surveys at various waterbodies at the nearby Wilton Industrial Complex and Lazenby village over the period 2018-2020 and all have also proved negative. There is an unconfirmed record of GCN from a pond on the golf course at Coatham, almost 5km to the north east of Dorman's Point. This record was from 1988 and the pond where it was recorded no longer exists. In 2019, INCA carried out an eDNA survey of a waterbody on the Teesworks area, which was within 200m of the unconfirmed GCN record at Coatham and this proved negative for GCN.

D4.24 The closest current records of GCN to the site are at Lovell Hill Ponds which is approximately 5km away to the south east. There are records from the 1980s from Wilton Lake however this was surveyed in 2013 along with a further nine water bodies between Marske and the Wilton Industrial Complex for the Forewind Dogger Bank wind turbine proposal, all of which proved negative for GCN [xi].

D4.25 GCN is considered to be absent from the site with no realistic potential for it to colonise and is therefore scoped out of further assessment.

Bats

D4.26 There are no records of bats over the site. INCA has recorded Common Pipistrelle *Pipistrellus pipistrellus* foraging in small numbers across various parts of the nearby industrial areas. Common Pipistrelle is more of a generalist in terms of its use of habitats than any other British bat species and in the North East is the only species that has been found to roost in urban areas (Jackson, 2012 [xii]). No other species of bat have been recorded as resident in the surrounding industrial or urban areas although Noctule bat *Nyctalus noctula*, has been recorded by INCA as commuting over the Wilton area.

D4.27 There is no suitable roosting habitat on the site but Common Pipistrelles are likely to forage in any areas that have suitable habitat to support its prey of flying insects. As such a small number of Common Pipistrelles would be expected to forage over the site and this is considered to be of Site importance only. Bats are therefore scoped out of further assessment

Reptiles

D4.28 The only native reptile species which is found in the surrounding areas is Common Lizard *Zootoca vivipara*. It is confined to the coastal dune areas from South Gare to Coatham Common, though records are few and far between which suggests that there is not a large population. From there it has spread into the northern end of the Teesworks area. Surveys by INCA have found small numbers of Common Lizards at various points on the Long Acres site, including a small population just north of The Fleet watercourse. The closest record of Common Lizard to the site is over 2.5km to the north and was of a single individual from Eston Pumping Station in 2009. All of the Common Lizard records are north of Dabholm Gut and separated from the site by watercourses and large areas of unsuitable habitat, making further spread unlikely.

D4.29 The majority of the site is unsuitable for Common Lizard as the vegetation is generally too open and most of the ground is flat and hard or compacted.

D4.30 It is considered that there is no reasonable likelihood of reptiles at the site and they are therefore scoped out of further assessment.

Otter Lutra lutra

D4.31 Otter has been recorded on Dabholm Gut and Coatham Marsh on the south side of the Tees and at several locations on the north side of the river. As an otter's territory typically extends for several kilometres it is possible that the species will occur at any location on Teesside where there are suitable water bodies with connectivity to other suitable habitat.

D4.32 There is no suitable habitat for Otter on the site and therefore it is considered to be absent, and has been scoped out of further assessment.

Water Vole Arvicola amphibius

D4.33 The most recent record of Water Vole on the Teesworks area is from an unspecified location on the former Corus site in 2007. Water Vole has been recorded from Coatham Marsh in the past though not within the past decade. INCA has carried out Water Vole surveys on Dabholm Beck, Kettle Beck and Kinkerdale Beck in the intervening period with negative results. The closest known recent location for Water Voles is on Spencer Beck approximately 2km to the south west of the site, though Water Voles are not regularly present on Spencer Beck.

D4.34 There is no suitable habitat for Water Vole on the site. Although a small stretch of Holme Beck is exposed, its banks comprise hard material with no opportunity for Water Voles to burrow. The ponds on the site are very shallow with no banks for Water Voles to construct burrows. Therefore, Water Vole is considered to be absent from the site and has been scoped out of further assessment.

Badger Meles meles

D4.35 The closest known current population of Badger to the site is in the Eston Hills approximately 5km to the south. Whilst historically Badger has been recorded from Wilton Woods, 3km to the south there are no recent records and it is unclear if the species is still present there.

D4.36 There is no suitable habitat for Badgers on the site and therefore Badger is considered to be absent and has been scoped out of further assessment.

Nesting Birds

D4.37 A number of bird species have been recorded as nesting on the site during the various site surveys and in particular as a result of the nesting bird checks in 2020. For the most part these were common, widespread species which were associated with the scrub and woodland habitats. Nevertheless the scrub/ woodland nesting bird assemblage included some Priority species, namely Dunnock *Prunella modularis*, Linnet *Carduelis cannabina* and Song Thrush *Turdus philomelos,* although each would only be expected to be present in single of low numbers. Of more significance locally is the ground nesting bird assemblage which includes at least two Priority species. Lapwing *Vanellus vanellus*, held a territory in 2018. It was not present in 2020, which may have been due to the increased levels of disturbance that year but the habitat on the site is such that it would be expected to nest in most years. Skylark *Alauda arvensis*, held three territories in 2020 and given the amount of potentially suitable habitat then that number could conceivably be higher in most years. A further Priority species, Reed Bunting *Emberiza schoeniclus,* was nesting in the small areas of reedbed on the site but there was only sufficient habitat present to support a single pair. Taken as a whole, the nesting bird assemblage is considered to be of Local importance.

Non-breeding Birds

D4.38 The potential for non-breeding birds of species associated with the Teesmouth and Cleveland Coast SPA to be present on the site is considered to be very limited. The pools are too small to support more than low single figures of waterfowl and the compacted nature of the substrates would make them unsuitable for waders to forage. It is possible that flocks of Lapwing might make use of the flat, open areas to roost but there are numerous other such suitable areas on Teesside both within and outside the SPA, some of which Lapwing is known to use for roosting. Therefore it is very unlikely that the site is of importance for the species. Consequently, the non-breeding bird assemblage is considered to be of Negligible importance and is scoped out of further assessment.

Priority and Other Notable Species

European Hedgehog Erinaceous europaeus

D4.39 Hedgehog distribution and relative abundance is most easily deduced by their occurrence as road casualties. They are rarely encountered on the A1085 trunk road, which is probably a reflection of the small and isolated nature of areas of suitable habitat for them. While there is some suitable habitat on site for hedgehogs it is too small to sustain a population of them. Therefore, Hedgehog is considered to be of Site importance only and is scoped out of further assessment.

Brown Hare Lepus europaeus

D4.40 The industrial sites on Teesside are thought to support some of the largest populations of Brown Hare in north east England due to the combination of extensive grassland areas and lack of disturbance. Brown Hare is regularly seen at the site and the population there is assessed as being of Local importance.

Harvest Mouse Micromys minutus

D4.41 There is no suitable habitat for Harvest Mouse on the site as the grassland that is present is too open in structure to support the species. The closest record of Harvest Mouse is at Coatham Marsh, 4km to the north east with most of the intervening area being unsuitable for Harvest Mouse. Therefore Harvest Mouse is considered to be absent from the site and it is scoped out of further assessment.

Common Toad *Bufo bufo*

D4.42 Common Toad breeds in the ponds on the site. The relatively small number of tadpoles indicates that the population on this site is too low to meet the criteria for designation as a Local Wildlife Site therefore it is assessed as being of Local importance.

Dingy Skipper butterfly *Erynnis tages*

D4.43 Dingy Skipper butterfly is resident on the site. There have not been any targeted surveys for butterflies but casual observations have recorded it in low double figures. This would be sufficient for the site to be designated as a Local Wildlife Site under the Tees Valley selection criteria. The site is therefore assessed as being of County importance for this species.

Grayling Butterfly *Hipparchia semele*

D4.44 Grayling butterfly is resident on the site. There have not been any targeted surveys for butterflies and its population distribution and density on the site is unknown. It is listed as part

of the invertebrate assemblage interest feature of the Teesmouth and Cleveland Coast SSSI but as it is a mobile species there are no selection criteria for designating individual sites as Local Wildlife Sites based on its presence. The habitats present on the site suggest that its population would be of Local importance.

Other Invertebrates

D4.45 There have been no targeted surveys for moths or other invertebrates on the site. The terrestrial habitat diversity is low, being generally of average to poor quality, while the topography is fairly uniform, open and exposed to wind. All of these are factors that limit the potential invertebrate interest of the site. While pockets of the site retain interest for species such as Dingy Skipper and Grayling, it is not expected that it would support a large assemblage of locally significant moth species. The vast majority of the Tees Valley's moth species of conservation concern are those associated with coastal grassland, reedbed and saltmarsh, neither habitat which is represented on this site. Therefore the Lepidoptera assemblage of Lepidoptera is considered to be of Site importance only and is scoped out of further assessment.

D4.46 The substrate is generally fairly compacted and flat, both features that would present as sub-optimal habitat for specialised brownfield invertebrates such as solitary bees and wasps. Therefore the Hymenoptera assemblage is considered to be of Site importance only and is scoped out of further assessment.

D4.47 Site visits in July 2020 found several individuals of Emperor Dragonfly *Anax imperator*, and double figures of Black-tailed Skimmer *Orthetrum cancellatum*, along with several other species of Odonata, in the small, shallow ponds in the centre of the site. The current guidelines for the selection of Local Wildlife Sites in the Tees Valley gives the presence of either of those species or the presence of a total of seven species of Odonata, as a criteria for Local Wildlife Site selection, which would make this site of County significance for Odonata. The Odonata fauna of the Tees Valley has expanded since the last version of the guidelines were drawn up such that Emperor dragonfly is now more widespread, though still uncommon, and many waterbodies would have seven species of Odonata. Nevertheless Black-tailed Skimmer is still rare in the Tees Valley so a population into double figures would be significant. Therefore the site is considered to be of County importance for Odonata.

European Eel Anguilla anguilla

D4.48 There is no suitable habitat for eels on the site. Although a section of Holme Beck is exposed, it is shallow with hard, artificial banksides and no aquatic vegetation. Therefore eels are considered to be absent from Dorman Point and are scoped out of further assessment.

Invasive Non-Native Plant Species

D4.49 A small number of plants of Small-leaved Cotoneaster *Cotoneaster microphylla*, were present in the Grangetown Prairie area surveyed by INCA in 2018 and whilst these were just outside the site it is possible that the occasional small specimen may be present on the Dorman Point. INNS are not of conservation importance so are scoped out of further assessment.

Habitats

D4.50 Taken as a whole, the site is almost entirely former industrial "brownfield" land. Except for embankments parallel to Eston Road, which supported a former rail line, and a few, relatively small areas of tipped or disturbed material, it is entirely flat. With few notable exceptions the substrate is either hard standing in the form of concrete bases or brick/concrete rubble, or else compacted blast furnace slag with a light covering of soil in places.

D4.51 Each type of habitat present is described briefly below and assigned a UK Habitats Classification[xiii] category where there is a category which corresponds with the habitat present. Individual habitat types varied in quality across the site and demarcations were made not only between different types of habitat but also between areas of the same habitat but of differing ecological condition. However, it should be noted that the vegetation often graded both within and across habitats, so such boundaries are approximate. The calculation of the Biodiversity Units ('BDU's) associated with the site, which is set out in section D8.0 Biodiversity Value Assessment defines the different areas of the site in terms of the habitats and their ecological condition. A map of the on site habitats, using the UK Habitats Classification categorisation is provided at Appendix D2.

Open Mosaic Habitats (UK Habitats Classification u1a)

D4.52 There are two areas that conform to the definition of Open Mosaic Habitat, totalling approximately 1.5ha with the larger area comprising 80% of that area. The larger area is structurally varied with mounds and depressions throughout. Many of the depressions have formed shallow pools with a silt base, which appear to vary in the extent to which they hold water thereby providing ecologically valuable draw-down zones. There is also a larger pond (0.08ha), which has concrete sides and which holds water permanently. As it is relatively small, this pond is classed as part of the habitat mosaic rather than being assessed separately as a pond. Most of the pools have a narrow fringe of Common Reed *Phragmites australis*. Small pockets of each area were sufficiently species-rich and diverse enough that they would meet the relevant criteria for designation as a Local Wildlife Site. As such the Open Mosaic Habitats are assessed as being of County importance.

Woodland (UK Habitats Classification w1f7 Other Woodland, Broadleaved)

D4.53 At the time of the 2018 survey this was a narrow strip of amenity tree plantation bordering Eston Road, consisting of various, mainly native, broad-leaved species and Corsican Pine *Pinus nigra*, which was estimated to be approximately 30-40 years of age. This was augmented by naturally regenerating woodland on its perimeter consisting largely of Italian Alder, *Alnus cordata* and Silver Birch *Betula pendula* with some Rowan *Sorbus aucuparia*, and Sallow *Salix sp*., which opened into light scrub of birch and bramble *Rubus fructicosus* at the southern end. The trees were felled in 2019 and are showing some regeneration from stumps, with the principal tree species which are regenerating being Common Alder *Alnus glutinosa*, Wild Cherry *Prunus avium* and Silver Birch.

D4.54 As the woodland is principally of amenity plantation origin it is considered to be of Site importance only therefore is scoped out of further assessment.

Scrub (UK Habitat Classification h3c6 "Other sea buckthorn scrub")

D4.55 Scrub, as a habitat in its own right, was at the time of the 2018 survey confined to the narrow extension of land adjacent to Eston Road, separated by a narrow path from the plantation woodland. It has similarly been felled in 2019. Sea Buckthorn *Hippothae rhamnoides* was the dominant species though Sallow *Salix sp*., Dog Rose *Rosa canina* and Butterfly bush *Buddleia davidii* also made significant contributions to the shrub assemblage. It should be noted however that Sea Buckthorn in a Teesside context is regarded as an invasive species with a negative impact on biodiversity, rather than being a habitat of importance. The scrub is assessed as being of Site importance only.

Sparsely Vegetated Land – Ruderal/Ephemeral

D4.56 By far the majority of the vegetated habitats on the site would fit with the definition under Table TS-1 of the Defra Biodiversity Metric 2.0 Technical Supplement [xiiv] as, "sparsely vegetated land – Ruderal/Ephemeral", which gives the following definition:

"The short lived transitory habitat of low growing early successional plants of open ground such as arable landscapes, derelict urban sites, quarries and railway ballasts. This will get replaced by more stable vegetation unless disturbance of soil continues. Reasonably variable in biodiversity value dependent on species present, do often provide important pollen and nectar sources along with open ground for insects."

D4.57 This type of habitat does not fit into the categories of the UK Habitat Classification although they do approximate quite well to the Joint Nature Conservancy Council Phase 1 Habitat Survey [xv] as category (J1.3) Ephemeral/ Short perennial.

D4.58 There is variation in character and conservation importance between different areas of this habitat across the site. At the eastern end the vegetation is very early successional and comprises principally individual clumps of Creeping Bent, *Agrostis stolonifera* with some Narrow-leaved Ragwort *Senecio inaequidens* and Stonecrops *Sedum spp*.

D4.59 Further west the species diversity increases with the most abundant herb species being Hop Trefoil *Trifolium dubium,* Golden Melilot *Melilotus altissimus*, and Catsear *Hypochaeris radicata*. Other notable elements to the vegetation are small amounts of Kidney Vetch *Anthyllis vulnerata,* Birds-foot Trefoil *Lotus corniculatus* and Hawkweed *Hieraceum spp*. For the most part the species diversity is moderate though areas become herb-rich and there are some small areas each of less than one hectare, which meet the "Urban Grasslands" criterion for designation as a Local Wildlife Site.

D4.60 As this habitat type varies so much across the site it isn't possible to assign a single significance category to it. By far the majority would be of Site or Local importance though with approximately one hectare in total being of County importance.

Grassland (UK Habitat Classification g4 Modified Grassland)

D4.61 Although none of the grassland on the site would meet the strict definition for Modified Grassland under the UK Habitat Classification they are assigned to that category as they are all species-poor. They range from rank grassland, principally Cocksfoot *Dactylis glomerata* with some scrub on a mound of soil, to open sward dominated by Red Fescue *Festuca rubra* where successional processes have gone beyond Ruderal/Ephemeral habitats. In all cases they are small in extent and would at most be considered to be of Site importance only.

Watercourse (UK Habitats Classification r1e Canals)

D4.62 The open section of Holme Beck, which is approximately 100m in length, is canalised and straight throughout. The sides are vertical and around 1.2m in height. At the northern end these comprise concrete blocks but for most of their length the embankments are made from stone. There was no aquatic vegetation in the channel. Although effectively of no intrinsic ecological value in its current state, given the importance of watercourses as connecting, landscape features it is assessed as being of Local importance.

D4.63 There are three culverts underneath the site. Holme Beck continues in a northern direction across the west of the site with Knitting Wife beck running in the same direction under the east of the site. There is a "Cross Connector" culvert between the two becks. Each culvert runs for several hundred metres under the site. Notwithstanding that culverts do receive a score under

the Defra BM 2.0 Rivers Biodiversity Metric, given their length they are assessed as being of Negligible importance and are scoped out for further assessment.

Bare substrates (UK Habitat Classifications u1b Developed land; sealed surface and UK Habitat Classification U1c artificial unsealed; unvegetated surface)

D4.64 Significant areas of the eastern end of the site remain as concrete pads which are effectively unvegetated except for cracks in the concrete.

D4.65 At the western end, parallel with Eston Road, an embankment of railway ballast is unvegetated except for some bryophytes and Red Valerian *Centranthus rubra*, which is considered to be an escape from horticulture rather than a wild plant.

D4.66 All areas of bare substrate on the site are assessed as being of Negligible importance and are therefore scoped out of further assessment.

Summary

D4.67 Table D4.3 lists those VERs which are present on the site or might otherwise be affected by the proposed development which are of Local or higher importance and are therefore taken forward for assessment.

Table D4.3 Valued Ecological Receptors in relation to Dorman Point

Valued Ecological Receptor	Status
Teesmouth & Cleveland Coast SPA/ Ramsar	International
Teesmouth & Cleveland Coast SSSI	National
Nesting birds	Local
Brown Hare	Local
Common Toad	Local
Dingy Skipper butterfly	County
Grayling butterfly	Local
Other Invertebrates (Odonata)	County
Open Mosaic Habitats	County
Ruderal/ Ephemeral	Site - County
Watercourse	Local

D4.68 Table D4.4 lists those VERs which have been scoped out of further assessment and the reason for them being scoped out

Table D4.4 Valued Ecological Receptors scoped out of further assessment

Valued Ecological Receptor	Reason for scoping out
North York Moors SAC	Too distant for any effects
North York Moor SPA	Too distant for any effects
Local Sites	Outside ZOI
Non-breeding birds	Site importance only
Bats	Site importance only
Reptiles	Absent
Otter	Absent
Water Vole	Absent
Badger	Absent

Valued Ecological Receptor	Reason for scoping out
Hedgehog	Absent
Other Invertebrates (Lepidoptera)	Site importance only
Other Invertebrates (Aculeates)	Site importance only
European Eel	Absent
Invasive Non-Native Species	Not a conservation priority
Modified Grassland	Site importance only
Woodland	Site importance only
Scrub	Site importance only
Bare Substrates	Negligible importance only

Future Baseline

D4.69 Without development it can be said with a high degree of confidence that, other than the areas of woodland and scrub close to Eston Road, the habitats on site would deteriorate significantly in ecological terms. This deterioration is ongoing as part of normal vegetation succession. A survey of the site by INCA in 2007, which was not listed in section 3 as it is too old to be relevant to a description of current condition, found that the habitats across much of the site were of significantly higher quality in 2007 in terms of higher plant species diversity. These habitats are now much less diverse due to invasive by grasses and Sea Buckthorn scrub. The Sea Buckthorn scrub is spreading rapidly and it is predicted that within a few years most of the ruderal/ephemeral and Open Mosaic Habitats will be lost or severely degraded. This in turn would be predicted to result in significant reductions of the Dingy Skipper and Grayling butterfly populations. Within a similar period it is likely that the small pools will have succeeded to reedbeds and while that is a valuable habitat in its own right it would result in the loss of the population Odonata of County importance.

D4.70 Should the proposed development not go ahead then it is likely that some alternative development would happen on the site given both the local planning policy position set out in chapter B and existing permissions. Therefore the future baseline would be similar to that of the proposed development.

D5.0 Potential Effects

D5.1 This section identifies the VERs that have been taken forward for further assessment. The likely impacts and effects that could arise from the proposed development activities are identified and considered with reference to each of the VERs.

Embedded Mitigation

D5.2 Adherence to measures outlined in a Framework Construction Environment Management Plan (CEMP) will form part of the embedded mitigation for the proposed development during the construction phase. The full list of CEMP measures is set out in section B7.0 Construction Methodology of Chapter B of this ES; with regards to biodiversity and ecology the CEMP will include the following measures:

1 Mitigation will be included to prevent and mitigate against any accidents, including but not limited to, spills, storage of soils and control of construction related dust and the construction of site hoarding to reduce the impact on ecological sensitive receptors;

2 Measures will be implemented to prevent sediment, dust, surface water run-off and other substances from entering watercourses;

3 Removal of trees, scrub, wetland habitat or areas of grassland or open mosaic habitat that may support nesting birds should be undertaken outside of nesting season (March to August inclusive), unless the habitats are first checked by a suitably qualified ecologist, who confirms in writing to the LPA that no nesting birds are present.; and

4 Measures will be implemented to prevent the spread of invasive non-native plant species, as listed under either Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) or the Invasive Alien Species (Enforcement and Permitting) Order 2019.

D5.3 Section B8.0 Summary of Primary and Tertiary Mitigation of Chapter B of this ES, provides a list of further embedded mitigation measures, one of which is relevant to this ecological assessment:

"Further ground investigation surveys will be undertaken in order to identify the need, or otherwise, for or remediation work. This stage of work will include, if necessary, the submission of details to divert watercourses including Holme Beck and Knitting Wife Beck and any associated ground remediation necessary as part the diversion."

D5.4 The assessment of potential effects assumes that this embedded mitigation is in place and therefore only considers impacts and the associated effects which will remain after its implementation.

D5.5 Each of the VERs which are of Local importance or above is assessed below. Table D5.1 lists the significance of effects with respect to each of the VERS that has been assessed.

Major Hazards and Accidents

D5.6 Consideration has been given to major hazards and accidents and it is not considered relevant to this topic.

Phasing

D5.7 A Phasing Schedule has been developed for the site which sets out the predicted levels of construction over time. The Phasing Schedule would make no difference to the assessment of

the ecological effects as all impacts on ecology will be due to the initial stages of construction, i.e. site clearance and remediation.

During Construction

Teesmouth & Cleveland Coast SPA/Ramsar

D5.8 The Teesmouth and Cleveland Coast SPA is approx. 1.1km to the north of the site at its closest point, which is the River Tees. The closest part of the Teesmouth and Cleveland Coast Ramsar site to the site is North Tees Mudflats approx. 1.6km to the north.

D5.9 A Habitats Regulations Assessment ('HRA') has been completed for the proposed development, as set out under Regulation 63 of the Habitats Regulations [i], and is submitted alongside the planning application.

D5.10 Stage 1 of a HRA involves screening to identify the potential for impacts to have likely significant effects. The following impacts were identified as having the potential to have a likely significant effects at Stage 1:

i Loss of supporting habitat caused by the proposed development;

ii Changes to flightlines or sightlines for waterbirds occasioned by the proposed development;

iii Disturbance caused to waterbirds caused by the proposed development;

iv Discharges to water caused by the proposed development; and

v Emissions to air caused by the proposed development.

D5.11 The HRA Stage 2 assessment (Appropriate Assessment) considers those potential impacts identified at Stage 1 and for each assesses whether they would be likely to have adverse effects on the site's integrity. This assessment takes into consideration the embedded mitigation measures, in particular that; *"Measures will be implemented to prevent sediment, dust, surface water run-off and other substances from entering watercourses."*

D5.12 The Stage 2 Appropriate Assessment concluded that, *"the proposed development will not cause adverse effects to the integrity of the Teesmouth and Cleveland Coast SPA and Ramsar site, either alone or in combination with other plans or projects, provided that the embedded mitigation measures specified in the application are satisfactorily delivered."*.

D5.13 As no additional mitigation is required beyond the embedded mitigation measures set out at paragraph D5.3 to mitigate the potential impacts identified in the HRA, the potential impact to these designated sites and their qualifying features will not be further assessed in this EIA and reference should, instead, be made to the HRA.

Teesmouth & Cleveland Coast SSSI

D5.14 The Teesmouth & Cleveland Coast SSSI underpins the SPA/Ramsar. Therefore it can be concluded on the basis of the HRA that there would be no adverse effect on those interest features of the SSSI that it shares with the SPA/Ramsar.

D5.15 The SSSI includes some interest features and areas that are in addition to those of the SPA/ Ramsar. Of those only three are within the 5km ZOI, namely; saltmarsh, Harbour Seal and the assemblage of breeding bird. All three of those interest features are nevertheless in excess of 4km from the site. Given the distances from the site it is therefore concluded that there would be no impact on the SSSI, i.e. effects in EIA terms are Neutral and Not Significant.

Nesting Birds

D5.16 The proposed development would result in the permanent loss of habitat supporting an assemblage of nesting birds of Local importance during the construction phase of the proposed development. As a result there will be a permanent, Minor Adverse effect on nesting birds.

Brown Hare

D5.17 The proposed development would result in the permanent loss of habitat supporting a population of Brown Hare of Local importance during the construction phase of the proposed development. As a result there will be a permanent, Minor Adverse effect on brown hare.

Common Toad

D5.18 The proposed development would result in the permanent loss of habitat supporting a population of Common Toad of Local importance during the construction phase of the proposed development. As a result there will be a permanent, Minor Adverse effect on Common Toad.

Dingy Skipper Butterfly

D5.19 The proposed development would result in the permanent loss of habitat supporting a population of Dingy Skipper butterfly of County importance during the construction phase of the proposed development. As a result there will be a permanent, **Moderate Adverse** effect on Dingy Skipper butterfly.

Grayling Butterfly

D5.20 The proposed development would result in the permanent loss of habitat supporting a population of Grayling butterfly of Local importance during the construction phase of the proposed development. As a result there will be a permanent, Minor Adverse effect on Grayling butterfly.

Other Invertebrates

D5.21 The proposed development would result in the permanent loss of habitat supporting a population and potentially an assemblage of invertebrates, specifically Odonata, of County importance during the construction phase of the proposed development. As a result there will be a permanent, **Moderate Adverse** effect on Odonata.

Open Mosaic Habitats

D5.22 The proposed development would result in the permanent loss of an area of Open Mosaic Habitat of 1.44ha of County importance during the construction phase of the proposed development. As a result there will be a permanent, **Moderate Adverse** effect on the Open Mosaic Habitat Resource.

Ruderal/Ephemeral

D5.23 The proposed development would result in the permanent loss of an area of Ruderal/ephemeral habitat of 0.34ha of County importance during the construction phase of the proposed development. As a result there will be a permanent, **Moderate Adverse** effect on the ruderal/ephemeral resource.

Watercourse

D5.24 At this stage, it is unclear whether the watercourses will be diverted, however, regardless of this, there is potential for adverse effects on the watercourse during the construction phase as a result of silt and contaminated soils entering the watercourse. However, as set out in paragraph D5.3 above, mitigation has been incorporated into the Framework CEMP to prevent this, and therefore the impact would be negligible at a local level, and EIA terms would be Negligible and Not Significant.

Table D5.1 Potential Effects on Valued Ecological Receptors

Value Ecological Receptor	Potential Effect
Teesmouth and Cleveland Coast SPA/ Ramsar	Neutral and Not Significant
Teesmouth and Cleveland Coast SSSI	Neutral and Not Significant
Nesting birds	Minor Adverse and Not Significant
Brown Hare	Minor Adverse and Not Significant
Common Toad	Minor Adverse and Not Significant
Dingy Skipper butterfly	**Moderate Adverse** and Significant
Grayling butterfly	Minor Adverse and Not Significant
Other Invertebrates (Odonata)	**Moderate Adverse** and Significant
Open Mosaic Habitats	**Moderate Adverse** and Significant
Ephemeral/ Ruderal (Urban Grassland)	**Moderate Adverse** and Significant
Watercourse (Holme Beck)	Negligible and Not Significant

During Operation

D5.25 Other than the daylighted section of Holme Beck, it is assumed that all habitats will be lost during the construction phase therefore there will be no further effects on habitats during the operational phase.

D5.26 A section of Holme Beck and Knitting Wife Beck may be diverted as part of the proposed development, however, at this stage the extent and nature of these works is unknown. Should this involve the daylighting of any section of these watercourses it could have potential to make a substantial contribution to the ecology of the site depending on the features incorporated into the realigned watercourses. This would have a permanent Beneficial effect on a watercourse of Local importance. At this stage, it is not possible to provide any certainty about what will happen to the watercourse on and under the site, and therefore any potential improvements do not form part of the assessment.

D5.27 The effects on species are in relation to the loss of their respective habitats during construction. Consequently none of the species VERs are anticipated to be present on site post construction due to the absence of suitable habitat therefore there will be no further effects on species during the operational phase.

D6.0 Mitigation and Monitoring

During Construction

D6.1 No mitigation is proposed to address the loss of on site habitats at this stage and therefore the effects on Dingy Skipper Butterfly, Odonata, Open Mosaic Habitat and Ruderal/ Ephemeral habitat remain significant.

D6.2 Detail is provided in section D9.0 Compensation, Enhancement and Monitoring as to the compensatory measures that will be taken forward through the forthcoming South Tees Regeneration Master Plan Environment and Biodiversity Strategy to offset any habitat lost through development of the Teesworks area, including through the proposed development.

During Operation

D6.3 No effects on habitats and species are anticipated during operation therefore no further mitigation is proposed.

D7.0 Residual Effects

During Construction

D7.1 As no additional mitigation is proposed during construction, residual effects are as set out in Section D5.0 Potential Effects.

During Operation

D7.2 As no additional mitigation is proposed during operation, residual effects are as set out in Section D5.0 Potential Effects.

D8.0 Biodiversity Value Assessment

D8.1 While the purpose of an EIA is to identify significant effects the biodiversity of any site is wider than the VERs, encompassing all species and habitats. Planning policy requires that there is no net loss of biodiversity and where possible a net gain.

D8.2 The Redcar and Cleveland Local Plan Policy N4 requires that there should be *"appropriate protection and enhancement measures incorporated into the design of development proposals, recognising wider ecosystem services and providing net gains wherever possible"*. This is also reflected within Paragraph 170(d) of national planning policy, which states that *"Planning policies and decisions should contribute to and enhance the natural and local environment by… minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."*

D8.3 Therefore, to give an overall biodiversity value for the site to ensure as a minimum no net loss, a metric has been used to score all of the habitats present in terms of the number of biodiversity units (BDUs) present. There are currently no widely agreed metrics for species however the overall biodiversity value of species is often a reflection of the habitats. The metric that has been used is the Defra BM2.0 version. This metric has been augmented by further interpretation of certain of the habitats using definitions devised by INCA through the Tees Estuary Partnership; these definitions are stated in Appendix D1. The calculation of the number of BDUs for each habitat block on the site is given in Table D8.1 below. (N.B. Areas of bare ground, whether sealed or unsealed, and buildings do not score in the metric so have been excluded from the calculations.)

Table D8.1 The number of BDUs associated with each habitat block on the site

Habitat Block	Habitat Type	Area	Distinctiveness	Condition	Connectivity	Strategic Significance	BDU / ha	Total BDUs
1a	Modified Grassland	0.13	2	1	1	1	2.00	0.26
1b	Modified Grassland	0.28	2	1.5	1	1	3.00	0.84
1c	Modified Grassland	0.27	2	1	1	1	2.00	0.54
1d	Modified Grassland	0.85	2	1.5	1	1	3.00	2.55
2a	Ruderal/ Ephemeral	3.34	2	1	1.15	1.1	2.53	8.45
2b	Ruderal/ Ephemeral	3.74	2	1	1.15	1.1	2.53	9.46
2c	Ruderal/ Ephemeral	0.34	2	2.5	1.15	1.1	6.33	2.15
2d	Ruderal/ Ephemeral	6.34	2	2	1.15	1.1	5.06	32.08
2e	Ruderal/ Ephemeral	5.80	2	1.5	1.15	1.1	3.80	22.01
2f	Ruderal/ Ephemeral	9.27	2	2	1.15	1.1	5.06	46.91
2g	Ruderal/ Ephemeral	1.08	2	2	1.15	1.1	5.06	5.46

Habitat Block	Habitat Type	Area	Distinctiveness	Condition	Connectivity	Strategic Significance	BDU / ha	Total BDUs
3a	Open Mosaic Habitat	0.16	6	1.5	1	1.1	9.90	1.58
3b	Open Mosaic Habitat	1.27	6	2.5	1	1.1	16.50	20.96
4a	Mixed Scrub	0.08	4	1.5	1	1	6.00	0.48
4b	Mixed Scrub	0.03	4	1.5	1	1	6.00	0.18
4c	Mixed Scrub	0.63	4	2	1	1	8.00	5.04
5a	Other Broadleaved Woodland	0.40	4	2	1	1	8.00	3.20

D8.4 In total the vegetated areas of the site total 162.15 BDUs.

D9.0 Compensation, Enhancement and Monitoring

Compensation

D9.1 Compensation refers to the process by which any residual effects after mitigation will be addressed. Compensation measures should be such that there will be no significant harm to biodiversity resulting from net loss of biodiversity in terms of the overall number of BDUs.

D9.2 The proposed development is anticipated to result in some areas of the site being available either as landscaping or specifically for the creation of replacement habitats. Both of these features would offset the loss of some of the BDUs caused through the construction process. Both also have the potential to provide like-for-like compensation for some elements of the VERs that would be lost through the construction process. As details of these measures are not known at this stage it is not possible to predict to what extent they will be able to compensate for the overall loss of biodiversity or for specific VERs. Therefore in calculating the number of compensatory BDUs that will be required for the proposed development, it is assumed that there is no on-site compensation, albeit the intention is to identify on-site compensation when the details of the layout and landscaping proposals are fixed at reserved matters stage.

D9.3 Teesworks is currently preparing an Environment and Biodiversity Strategy that will guide future decisions by Teesworks as to the delivery of habitat enhancement schemes to off-set biodiversity loss resulting from its development and regeneration activities. This will quantify all of the BDUs which will be lost as a result of development across the entire Teesworks area. It will also calculate the number of BDUs that can be created in the Teesworks area including on land outside of the any areas proposed for development. The strategy will also identify any local, off-site habitat creation and enhancement measures that could be implemented, focusing primarily on the Tees estuary but potentially within the wider Tees catchment area if necessary. It is the intention that the Environment and Biodiversity Strategy will provide options and opportunities for Teesworks, and those developing within the Teesworks area, to meet any biodiversity value deficit arising from development.

D9.4 As set out in section D8.0, there will be a net loss of 162.15 BDUs as a result of the proposed development which will be compensated for through the implementation of the Environment and Biodiversity Strategy.

D9.5 As well as needing to compensate for the loss of the overall number of BDUs there will be specific VERs which require like-for-like mitigation. The Defra Biodiversity Metric 2.0 requires like for like compensation for loss of habitats classified as being of high distinctiveness. Open Mosaic Habitat is classified as a high distinctiveness habitat, and will therefore have to be compensated for by the creation or enhancement of alternative Open Mosaic Habitat.

D9.6 Ruderal/Ephemeral habitat is defined by the Defra BM2.0 metric as being of low distinctiveness and therefore not requiring like-for-like replacement. However, as 0.34ha of this habitat meets the “Urban Grassland” criterion for designation as a Local Wildlife Site based on its plant species diversity, thus making it of County importance, then this should be replaced by an equivalent area of equal plant species diversity.

D9.7 There is no equivalent guidance on the need for like-for-like mitigation for species and there is some merit in conservation terms in allowing flexibility, for example in enhancing the population of a rarer species that is not found on the site compared to recreating the population of a commoner species that is. Nevertheless for species for which the population is assessed as being of County significance or above it would seem appropriate that like-for-like mitigation is

provided. For Dorman Point this would be Dingy Skipper butterfly and various species of Odonata.

D9.8 In summary compensation will therefore need to be provided specifically for the following:

i 162.15 Habitat BDUs;

ii An area of 1.44ha of Open Mosaic Habitat;

iii An area of 0.34h of habitat meeting the "Urban Grasslands" criterion for LWS designation;

iv A population of Dingy Skipper butterfly of County importance;

v A population or assemblage of Odonata of County importance.

Enhancement

D9.9 Enhancement refers to any measures that are taken which increase biodiversity value above the baseline conditions, either of the overall biodiversity value or for specific VERs. In ecological terms it is known as Biodiversity Net Gain ('BNG').

D9.10 In planning terms, BNG is currently aspirational rather than mandatory. Nevertheless opportunities will be sought to provide enhancements through the Environment and Biodiversity Strategy.

D9.11 The Defra BM2.0 metric makes quantitative comparisons between habitats however there is scope to make significant qualitative enhancements for biodiversity that go beyond the habitat comparisons. In particular, the opportunity to take a strategic approach to habitat creation and enhancement across the entire Teesworks area can provide a level of ecological connectivity and functionality for species which is significantly greater than the current situation whereby species have colonised the Teesworks area in an opportunistic and often disconnected way.

Monitoring

D9.12 Monitoring will be required to ensure that identified compensatory and, where relevant, enhancement measures, have been achieved across an agreed timescale. This will include but not necessarily be limited to all compensatory measures set out in this section.

D9.13 Monitoring will need to be in place for the duration of time that it is necessary to ensure that compensatory measures have achieved their objectives.

D9.14 Monitoring will identify any measures that have not achieved, or are failing to achieve, their objectives and in such cases will provide remedial measures to address any shortfall.

D9.15 The Environment and Biodiversity Strategy will include a management plan to provide the required compensation and, where possible, enhancement measures. The actions of the management plan will therefore form the focus of the monitoring, with the monitoring schedule provided as part of the management plan.

D10.0 Summary & Conclusions

D10.1 The assessment of the ecological impacts of the construction and operational phases of the proposed development has been carried out on the assumption that all of the habitats and species on the Dorman Point site will be lost through the construction process, except for Holme Beck.

D10.2 The proposed development will result in the loss of a number of VERs of County or Local importance, some of which will require compensation on a like-for-like basis.

D10.3 Following the implementation of the embedded mitigation measures, significant residual effects upon some VERs are anticipated as shown in Table D10.1.

Table D10.1 Table Summary of Effects

Receptor	Impact	Embedded Mitigation	Potential Effects	Mitigation	Residual Effects
Teesmouth and Cleveland Coast SPA/ Ramsar	Discharges to water caused by construction	Measures to prevent substances from entering watercourses	Neutral and Not Significant	Not applicable	Neutral and Not Significant
Teesmouth and Cleveland Coast SSSI	Discharges to water caused by construction	Measures to prevent substances from entering watercourses	Neutral and Not Significant	Not applicable	Neutral and not significant
Nesting birds	Harm due to construction	Timing constraints on vegetation clearance	Neutral and Not Significant	Not applicable	Neutral and Not Significant
Nesting birds	Loss of habitat due to construction	Not applicable	Minor Adverse and Not Significant	Not applicable	Minor Adverse and Not Significant
Brown Hare	Loss of habitat due to construction	Not applicable	Minor Adverse and Not Significant	Not applicable	Minor Adverse and Not Significant
Common Toad	Loss of habitat due to construction	Not applicable	Minor Adverse and Not Significant	Not applicable	Minor Adverse and Not Significant
Dingy Skipper	Loss of habitat due to construction	Not applicable	**Moderate Adverse** and Significant	Not applicable	**Moderate Adverse** and Significant
Grayling	Loss of habitat due to construction	Not applicable	Minor Adverse and Not Significant	Not applicable	Minor Adverse and Not Significant
Other invertebrates	Loss of habitat due to construction	Not applicable	**Moderate Adverse** and Significant	Not applicable	**Moderate adverse** and Significant
Open Mosaic Habitats	Removal during construction	Not applicable	**Moderate Adverse** and Significant	Not applicable	**Moderate adverse** and Significant

Receptor	Impact	Embedded Mitigation	Potential Effects	Mitigation	Residual Effects
Ruderal/ ephemeral Habitat	Removal during construction	Not applicable	**Moderate Adverse** and Significant	Not applicable	**Moderate adverse** and Significant
Watercourse	Discharges to water caused by construction	Measures to prevent substances from entering watercourses	Neutral and Not Significant	Not applicable	Neutral and Not Significant

D10.4 The proposed development will result in the loss of 162.15 BDUs, which will need to be compensated for to achieve a minimum of no net loss. This will be done as part of an Environment and Biodiversity Strategy covering the entire Teesworks area in agreement with Natural England and RCBC. This Strategy will allow for the provision of off-site compensation if it shows that there would be a net loss of biodiversity unit from development in the Teesworks area.

Conclusion

D10.5 Taking into consideration the proposed mitigation measures, effects on VERs that would be considered significant in EIA terms are:

i the loss of an area of 1.44ha of Open Mosaic Habitat;

ii the loss of an area of 0.34ha of Ruderal/Ephemeral ("Urban Grassland") habitat;

iii the loss of a population of Dingy Skipper butterfly of County importance;

iv the loss of a population of Odonata of County importance.

D10.6 There will be the loss of a small number of specific VERs of minor significance, as set out in Table 8.1. As these are of minor significance they do not require like-for-like compensation but compensation will be provided of at least equivalent biodiversity value.

D10.7 The development and implementation of an Environment and Biodiversity Strategy will ensure that compensatory measures are provided such that there is no net loss of biodiversity arising from the proposed development.

D11.0 Abbreviations & Definitions

1	INCA	Industry Nature Conservation Association
2	ES	Environmental Statement
3	STDC	South Tees Development Corporation
4	CEnv	Chartered Environmentalist
5	CIEEM	Chartered Institute of Ecology and Environmental Management
6	WCA	Wildlife and Countryside Act (1981)
7	NERC	Natural Environment and Rural Communities Act (2006)
8	BNG	Biodiversity Net Gain
9	RCBC	Redcar & Cleveland BoroughCouncil
10	NPPF	National Planning Policy Framework
11	SPD	Supplementary Planning Document
12	VER	Valued Ecological Receptor
13	ZOI	Zone Of Influence
14	GCN	Great Crested Newt
15	ECoW	Ecological Clerk of Works
16	EcIA	Ecological Impact Assessment
17	F+G	Faithful and Gould
18	SPA	Special Protection Area
19	SAC	Special Area of Conservation
20	SSSI	Site of Special Scientific Interest
21	NNR	National Nature Reserve
22	CEMP	Construction Environment Management Plan
23	HRA	Habitats Regulations Assessment
24	BDU	Biodiversity Unit

D12.0 References

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