

REDCAR ENERGY CENTRE APPENDIX 7.2

Ecology Technical Appendix

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Environmental Statement
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1 INTRODUCTION

1.1 Background

1.1.1 RPS was commissioned by Redcar Holdings Limited to undertake a Preliminary Ecological Appraisal (PEA) for Redcar Energy Centre (REC) on land at the Redcar Bulk Terminal (hereafter referred to as the 'Application Site'), as shown on Figure A7.1: Site Location Plan.

1.1.2 The Application Site is located to the west of Redcar and is approximately 10.1 ha in size, central Ordnance Survey (OS) grid reference NZ 5585 2604. The Application Site comprises part of the former Teesside Steel Works and is mostly covered in coal waste and currently unused.

1.2 Report Objectives

1.2.1 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out. This is termed a Preliminary Ecological Appraisal Report (PEAR) in accordance with Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Appraisal or Ecological Impact Assessment (EIA).

1.2.2 The key objectives of the PEA were to identify:

- the broad habitat types and dominant floral communities within the survey area;
- the presence of any legally protected habitats listed within European or UK legislation;
- the presence of, or suitable habitat capable of supporting legally protected and notable species of conservation;
- the presence of Invasive Non-Native Species (INNS) subject to legal control; and
- any requirement for further ecological survey work to inform the ecological assessment of the site.

1.2.3 This report includes a description of the survey methods employed, results obtained, conclusions about the nature conservation value of the Application Site and recommendations for mitigation where required.

1.3 Zone of Influence

1.3.1 The term Zone of Influence (Zoi) is used to describe the geographic extent of potential impacts of a proposed development. The Zone of Influence is determined by the nature of the development and also in relation to designated sites, habitats or species which might be affected by the proposals.

1.3.2 For this site, the Zone of Influence is considered to be land on and within 2km of the Application Site for habitats and all species groups other than birds. Appendix 7.1 deals with ornithological interests.

1.4 Development Proposals

1.4.1 The proposed REC comprises:

- a Materials Recovery Facility incorporating a Bulk Storage Facility;
- an Energy Recovery Facility; and
- an Incinerator Bottom Ash recycling facility.

- 1.4.2 The REC would be capable of generating up to 49.9 Mega Watts of electricity (MWe) from up to 450,000 tonnes per annum of mixed residual Municipal Solid Waste, Commercial and Industrial waste and/or Refuse Derived Fuel.
- 1.4.3 Excess clean surface runoff, not required for use in the REC process, would be managed through a discharge into the River Tees. Runoff would be directed through oil interceptors then flow through a new drainage pipe prior to discharging from the south of Application Site near the access road. Further details of the drainage strategy can be found in Appendix 8.2: Outline Drainage Strategy.

1.5 Legislation and Policy

- 1.5.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application are explained in the relevant sections of this report.
- 1.5.2 The relevant articles of legislation are:
- The National Planning Policy Framework (NPPF, 2019);
 - ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2017);
 - Local planning policies (Redcar and Cleveland Local Plan ('RCLP'), 2018));
 - The Conservation of Habitats and Species Regulations 2017;
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Countryside and Rights of Way Act 2000; and
 - The Natural Environment and Rural Communities Act 2006.
- 1.5.3 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Annex A.
- 1.5.4 The proposed development would be subject to the Town and Country (Environmental Impact Assessment) Regulations 2017 and a Scoping Report has been provided to Redcar and Cleveland Borough Council (see Appendix 4.1 of the Environmental Statement (ES)).

2 METHODS

2.1 Desk Study

- 2.1.1 Ecological records within a 2km radius of the site were requested from Environmental Records Information Centre North East (ERIC NE) biological records service. Data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs).
- 2.1.2 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2016).
- 2.1.3 A 1:25,000 OS map was used to identify nearby features such as ponds or green corridors that could provide habitat or connectivity to other areas.

2.2 Field Surveys Methods

Preliminary Ecological Appraisal

- 2.2.1 The PEA consisted of two components: a Phase 1 Habitat survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.
- 2.2.2 The surveys were undertaken on the 30 September 2019 and the survey area comprised the Application Site and a 100-metre buffer.
- 2.2.3 The Phase 1 Habitat survey followed the standard methodology (JNCC, 2010). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.
- 2.2.4 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat survey. The site was assessed for its suitability to support protected species, in particular Great Crested Newts (*Triturus cristatus*), reptiles, birds, badgers (*Meles meles*), bats and other species that could pose a planning constraint such as Invasive Non-Native Species (INNS) subject to legal control.
- 2.2.5 The surveyor looked for evidence of use of the survey area by protected species including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted and where possible, the paths were followed. Fence boundaries were walked to establish any entry points or animal signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

Preliminary Bat Roost Assessment

- 2.2.6 A preliminary bat roost assessment was undertaken by Dawn Phythian, a licenced bat surveyor (Licence number: 2015-15556-CLS-CLS) on suitable features within the Application Site. The weather at the time of the survey was dry and clear.
- 2.2.7 The assessment followed the methodology detailed in Collins (2016) and comprised an external ground level assessment to identify features likely to be used by roosting bats. Features deemed suitable for roosting bats were further investigated (where accessible) with a torch and/or endoscope to look for evidence of use. Bat presence may be indicated by:
- presence of bat droppings;
 - staining at regularly used access points;

- bat corpses; or
- scratches.

2.2.8 Each building and/or tree was classified for its potential to support roosting bats using criteria detailed in Table 2.1. The suitability for the habitat to support foraging/commuting bats and connectivity to the wider area was also assessed.

Table 2.1: Bat Habitat Suitability Criteria

Suitability	Description of Roosting Habitats	Foraging and Commuting Habitats
Negligible	Negligible habitat features on site not likely to be used by roosting bats.	Negligible habitat features on site not likely to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats such as gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to its size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>Site close to and connected to known roosts.</p>

Table Note

From Bat Survey for Professional Ecologists: Good Practice Guidelines (3rd edn), (Collins, 2016)

2.3 Limitations

Desk Based Assessment

2.3.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

Survey

2.3.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the Application Site, no investigation can ensure the complete characterisation and prediction of the natural environment.

2.3.3 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the Application Site, based on the suitability of the habitat, known distribution of the species in the local area and any direct evidence of the Application Site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

Accurate Lifespan of Ecological Data

- 2.3.4 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for 18 months following the PEA survey, assuming no significant changes to the site conditions.

3 RESULTS

3.1 Desk Study

Designated Sites

- 3.1.1 There are four statutory designated sites for nature conservation value within 2km of the Application Site. The closest of these is Teesmouth and Cleveland Coast SSSI which is adjacent to the site and overlaps with South Gare and Coatham Sands SSSI.
- 3.1.2 Two non-statutory sites are located within the 2km search radius of the site. The closest of these is Saltholme Nature Reserve, located 109-metres to the north of the Application Site.
- 3.1.3 A summary of these sites is provided in Table 3.1 below and the location of each site is detailed in **Error! Reference source not found.2a**. Sites designated for their bird interests (Special Protection Areas (SPA) and RAMSAR sites) are included in the list for completeness though these are more thoroughly considered in Appendix 7.1.

Table 3.1: Designated Sites within 2km of the Search Area

Site name	Type	Distance from site (m)	Interest features
Statutory Sites			
Teesmouth and Cleveland Coast	SSSI	0	Includes a range of coastal habitats: sand and mud-flats, rocky shore, saltmarsh, freshwater marsh and sand dunes on and around an estuary which has been considerably modified by human activities.
South Gare and Coatham Sands	SSSI	0	Predominantly sandy with rocky foreshores and includes large dune systems overlaps with Teesmouth and Cleveland Coast SSSI
Teesmouth and Cleveland Coast	SPA	80	Supports internationally significant numbers of sea birds.
Teesmouth and Cleveland Coast	RAMSAR	80	Supports internationally significant numbers of sea birds.
Non-statutory Sites			
Saltholme	NR (RSPB Site)	109	Reedbeds, open pools, scrapes, wet grassland and meadows supporting nationally important numbers of wintering wildfowl as well as breeding bird species.
Teesmouth	NNR	1,500	Consists of two distinct areas. North Gare is an area of dunes and grazing marsh providing habitat for breeding and over-wintering birds. Seal Sands provides intertidal providing foraging habitat for wading birds.

Abbreviations used in Table 3.1: SAC: Special Area of Conservation; SPA: Special Protection Area; SSSI: Site of Special Scientific Interest; NR: Nature Reserve; NNR: National Nature Reserve.

- 3.1.4 The Teesmouth and Cleveland Coast SSSI borders the Application Site to the north. The Teesmouth and Cleveland SSSI is an extensive mosaic of coastal freshwater habitats centred on the Tees Estuary. Habitats include sand dunes, saltmarshes, mudflats, rocky and sandy shores, saline lagoons, grazing marshes, reedbeds and freshwater wetlands. The SSSI includes the whole of the Tees Estuary. The Tees is heavily modified and the few semi-natural habitats that remain are nestled amongst industrial development including the busy container ports. The coastal strip of the SSSI is predominantly sandy with rocky foreshores and includes large dune systems such as Coatham Sand Dunes adjacent to the Applications Site. The SSSI forms part of the Teesmouth and Cleveland Coast SPA and Ramsar site located less than 100-metres from the Application Site boundary. The SPA and Ramsar support internationally significant numbers of sea birds.
- 3.1.5 Saltholme Nature Reserve is managed by the RSPB and is located 109-metres from the Application Site to the north. The Teesmouth National Nature Reserve is located approximately

1.5km to the west of the Application Site on the opposite side of the Tees Estuary. There are no local nature reserves within 2km of the Application Site with the closest, Seaton Dunes and Common Local Nature Reserve, being located 2.7km to the north west of the Application Site also on the opposite side of the Tees Estuary. In addition, three other Tees Wildlife Trust sites (Lavenby Beck, Saltburn Gill and The Howls) are located in excess of 7km from the Application Site beyond the Zol for the site.

Species

- 3.1.6 Records of protected species were obtained from the ERIC NE. A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the Application Site. A summary of these records is provided in Table 3.2.
- 3.1.7 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6 figure grid reference resolution or higher are provided, since locations given at a lower resolution do not allow accurate calculation of distance to the Application Site boundary. Records which are confirmed or 'considered correct' by ERIC NE are included.

Table 3.2: Species Records (non-avian) from the last 10 years within 2 km of the Application Site

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation status
Insects				
Small heath	<i>Coenonympha pamphilus</i>	0.7	2017	UKBAP-2007 (research only), England_NERC_S.41, RedList_GB_post2001-NT.
Wall	<i>Lasiommata megera</i>	1.3	2016	UKBAP-2007 (research only), England_NERC_S.41, RedList_GB_post2001-NT,
Marine Mammals				
Grey seal	<i>Halichoerus grypus</i>	1.1	2016	Bern-A3, CMS_A2, HabDir-A2*, HabDir-A5, HabReg-Sch4, Northumberland BAP
Common seal	<i>Phoca vitulina</i>	1.1	2016	UK BAP-2007, Bern-A3, CMS_A2, England_NERC_S.41, HabDir-A2*, HabDir-A5, HabReg-Sch4, Northumberland BAP, Tees Valley BAP
Terrestrial mammals				
Roe deer	<i>Capreolus capreolus</i>	1.3	2017	Bern-A3
Brown hare	<i>Lepus europaeus</i>	0.2	2010	UK BAP-2007, Durham BAP, England_NERC_S.41, FEP-007_tab2, Newcastle BAP, Tees Valley BAP,
Weasel	<i>Mustela nivalis</i>	2	2016	Bern-A3

Abbreviations used in Table 3.2: WCA1i: Wildlife & Countryside Act Schedule 1, part 1; WCA2: Wildlife & Countryside Act Schedule 2; WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 8; WCA9: Wildlife & Countryside Act Schedule 9; N: Nationally Notable; Nb: Notable B; NR: Nationally Rare; NS: Nationally Scarce; NERC: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; HabDir2, 4, 5: Habitats Directive Annex 2, 4, 5; RedList_Global_post2001_LC: Global Red list status: Lower risk - least concern; HabRegs2: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 2); HabRegs4: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 4).

3.2 Phase 1 Habitat Survey

- 3.2.1 The survey results are presented in the form of a map with the habitat types and boundary features marked (Figure A7.7) with the relevant target notes.
- 3.2.2 Descriptions of the habitat types and boundary features are detailed below. Habitat descriptions are defined by broad habitat types (JNCC, 2010) and are listed in Table 3.3 for the survey area (i.e. the Application Site and the surrounding 100-metre buffer).

Table 3.3: Phase 1 Habitat Areas within the Survey Area

Habitat Code	Phase 1 Habitat	Area (m2)
A2.1	Scrub - dense/continuous	173
A2.2	Scrub - scattered	12407
B6	Poor semi-improved grassland	10980
H1.1	Intertidal sand	741
H6.5	Sand dune - scrub	39390
H6.7	Sand dune - grass	1823
J3.6	Buildings	3354
J4	Bare ground	197960
J5	other	24026
Total		290853

Bare Ground

- 3.2.3 At the time of the survey the majority of the Application Site comprised bare ground of either coal waste or broken concrete slabs (Photo 1). Pioneer vegetation is beginning to establish in hollows including Shepard's purse (*Capsella bursa-pastoris*), groundsel (*Senecio vulgaris*), mayweed (*Anthemis arvensis*) and rosebay willow herb (*Chamaenerion spp.*).



Photo 1: Bare ground and temporary pools within the Application Site.

Semi-Improved Grassland

- 3.2.4 The bund on the north and north east boundary of the Application Site has rank semi-improved grassland (Photo 2). In places this does not provide complete coverage and contains cocksfoot (*Dactylis glomerate*), cats ear (*Hypochaeris radicata*), groundsel (*Senecio vulgaris*), meadow grass (*Poa sp.*), an unidentified dock species (*Rumex sp.*) and creeping thistle (*Cirsium arvense*).



Photo 2: The bund to the north and north east of the Application Site with semi-improved grassland separating the site from the coastal sand dune system.

Scattered Scrub

- 3.2.5 The vegetation on the bund on the north and the east boundary comprises scattered scrub dominated by birch species (*Betula spp.*) with a few buddleia (*Buddleja spp.*).

Introduced Scrub

- 3.2.6 On the east boundary there is a small area of introduced scrub mainly Japanese rose (*Rosa rugosa*) (an INNS), buddleia and some self-seeded birch.

Sand Dune – Scrub and Grass

- 3.2.7 A coastline of sandy beach and dunes is adjacent to the north of the Application Site with a tidal inlet to the west.

Ephemeral Ponds

- 3.2.8 There were three areas of ephemeral ponds (temporary water) on the Application Site. Two with no vegetation and another with only grass. Given the vegetation present these were not likely to hold water during dry weather spells and recent heavy rain before the survey explains their existence.

3.3 Ecological Scoping Survey

Invasive Species

- 3.3.1 Japanese rose was noted on the eastern boundary of the Application Site (TN 1 on Figure A7.7). No other invasive species were noted at the time of survey.

Invertebrates

- 3.3.2 The boundary bund and area to the north is likely to support invertebrate species, as are the flowering species including buddleia and rosebay willow herb scattered within the Application Site. However, the majority of the Application Site has little food stock to encourage invertebrates.

Reptiles

- 3.3.3 No evidence of reptiles was seen on the Application Site and no potential hibernacula were noted. The material forming the bund on the northern edge is too fine to be a hibernacula however, the semi-improved grassland and coastal dunes provide foraging and basking potential for reptiles, such as common lizard (*Zootoca vivipara*). Reptiles are not considered a constraint to the proposed development.

Birds

- 3.3.4 No birds were noted using the Application Site during the survey, however given the proximity of the site to the adjacent Teesmouth and Cleveland Coast SPA and RAMSAR a full suite of ornithological surveys have been completed and are reported separately within Appendix 7.1.

Bats

- 3.3.5 The three buildings on the Application Site were not found to hold any potential for roosting bats. Table 3.4 presents the results of the preliminary bat roost assessment. The lack of vegetation on the Application Site means it is of little value to foraging bats. The dune, beach and grass bund to the north may provide foraging habitat for bat species.

Table 3.4: Preliminary Bat Roost Assessment

Building Number	Description	Bat potential
1	Open ended metal shed; no features present for bat roost potential (viewed from outside)	None
2	Metal shed open on end; no features present for bat roost potential (viewed from outside).	None
3	Double wood and plastic covered wood flat roof 'portacabin' stile building (viewed from outside). Very wet and dilapidated; no features suitable for roosting bats. The fabric of the building is saturated with water further reducing the suitability for bats.	None

- 3.3.6 Bats are not considered a constraint to the proposed development.

Amphibians

- 3.3.7 No evidence of amphibians was noted on the Application Site; the ponds seen were temporary rain ponds and not suitable for supporting breeding amphibians. Amphibians are not considered a constraint to the proposed development.

Other Mammals

- 3.3.8 No evidence of any other mammal species or potential for them was noted on the Application Site. Habitats within the buffer provide the potential for terrestrial mammal species such as hedgehog (*Erinaceus europaeus*). Marine mammals, such as common and grey seals are likely to utilise the mouth of the River Tees to the west of the Application Site and the coastal habitats to the north.

4 EVALUATION AND POTENTIAL IMPACTS

4.1 Designated Sites

- 4.1.1 There are four statutory designated sites for nature conservation value within 2 km of the site, shown in Table 3.1. The closest of these is Teesmouth and Cleveland Coast SSSI which is adjacent to the Application Site and overlaps with South Gare and Coatham Sands SSSI.
- 4.1.2 All works for the REC would be contained within the Application Site boundary, therefore, there would be no direct impact on the identified designated sites. The proposed clean water discharge point would be into the Tees Estuary, avoiding Bran Sands. Indirect effects have been assessed in relation to air quality changes resulting from emissions by the REC during operation (see Appendix 10.5).

4.2 Habitats

- 4.2.1 The habitats on the Application Site are species poor and of low value. The semi-improved grassland comprising the bund along the northern boundary separates the Application Site from the more important dune and coastal habitats. The bund would be retained and protected during construction. An appropriate works-free buffer would be created around the bund to prevent encroachment of construction works and a 5-metre high concrete wall would be erected early within the construction programme to provide a push wall for the Incinerator Bottom Ash (IBA) recycling facility and provide a screen for the adjacent land uses.
- 4.2.2 **Table 4.1** below summarises the habitat types within the Application Site and outlines the potential impacts of the proposed development to each of these habitats.

Table 4.1: Summary of Potential Habitat Impacts

Habitat Code	Phase 1 Habitat	Area (m ²)	Ecological Importance	Potential Impact
A2.2	Scrub - scattered	12,407	Site	Loss
B6	Poor semi-improved grassland	10,980	Site	Disturbance within the east of the Application Site. Protected to the north of the site.
J3.6	Buildings	3,354	Site	Demolition / Loss
J4	Bare ground	197,960	Site	Loss
Total		224,701		

- 4.2.3 Habitats on the Application Site are not of ecological importance and are not considered a constraint to the proposed development.

4.3 Species

Marine Mammals

- 4.3.1 The desk assessment identified records of common and grey seal approximately 1.1km from the Application Site. Common seals are UK Biodiversity Action Plan (BAP) species and both species are included in the Northumberland BAP & covered by Schedule 4 of the Habitats Directive. Seals are sensitive to noise and the impact of noise generating activities, particularly during site clearance works, should be considered for these species. Similarly, the impact of water quality changes to these species should be assessed in the Environmental Impacts section of Chapter 7: Ecology and Ornithology Chapter.

Terrestrial Mammals

- 4.3.2 The desk assessment identified records of brown hare 200-metre from the Application Site. They are a UKBAP species and are listed in Section 41 of the NERC Act considered of principle importance for the conservation of biodiversity in England. They are sensitive to disturbance and killing or injury, often in collisions with moving vehicles. They are not typically associated with the habitats found on the Application Site, more typically found in grassland habitats. The semi-improved grassland to the north of the Application Site, associated with the bund, is regularly disturbed by dog walkers and recreational users. As such, the increase in noise during construction which would be temporary, and any change to the operation noise levels at the Application Site are not considered to be significant for this species. The REC would be securely fenced to prevent mammals entering the facility.

Invertebrates

- 4.3.3 The desk assessment identified records of small heath and wall butterfly within 700-metres and 1.3km of the Application Site respectively. These are UKBAP species (for research purposes only) and are listed in Section 41 of the NERC Act considered of principle importance for the conservation of biodiversity in England. Small heath butterfly are associated with grassland where there are fine grasses, especially in dry, well-drained situations such as coastal dunes, but it is also found on road verges, moorland and in woodland rides. Wall butterfly are found in open grassland, on dunes and other coastal habitats, as well as disused quarries and derelict land. Of the two species, there is potential for wall butterfly to occur on the Application Site although there was little grass species (the food plant of the caterpillar) evident within the bare ground on site during the survey. As such, it is considered that the species is more likely to utilise the semi-improved habitat to the north of the Application Site.

5 MITIGATION AND ENHANCEMENT

5.1 Designated Sites

- 5.1.1 Mitigation and enhancement relevant to birds is considered in Appendix 7.1 and Chapter 7: Ecology and Ornithology.
- 5.1.2 There would be no direct impact to sites designated for their non-avian sensitivities as a result of the proposed development. Indirect effects on these designated sites are assessed within the Chapter 7: Ecology and Ornithology of the ES resulting from air quality changes during operation of the REC.

5.2 Species

- 5.2.1 Whilst the potential for protected species on the Application Site has been assessed as low, there is the potential for animals to be encountered during the site clearance and construction works. Should species such as common toad or frog, hedgehog or brown hare be encountered in advance of, or during the works, they should firstly be allowed to leave the site. For less mobile species, these should be carefully relocated to a safe location north of the Application Site if they are in imminent danger. If time allows, the Contractors should seek the advice of a suitably trained ecological professional.
- 5.2.2 It is recommended that the buildings scheduled for demolition are removed prior to March 2021 which is the limit of the validity of the survey data reported here. Beyond March 2021, it is recommended that a pre-construction survey is completed for the site and the surrounding 100 metre buffer to identify any changes which may affect the recommended mitigation or the need for any protected species licences.
- 5.2.3 Indirect effects on marine mammals are to be considered within the Chapter 12: Noise and Vibration of the ES and through a Water Framework Directive Assessment, appended to Chapter 8: Hydrology and Flood Risk to assess the potential impacts of any water quality changes.

5.3 Enhancement Opportunities

- 5.3.1 There is very little scope for onsite enhancements as the majority of the Application Site would be covered by the REC working plant and supporting hard landscaping. Landscape proposals on the Application Site should mimic the existing bund and contain species to complement the coastal location, avoiding an urbanised look.
- 5.3.2 In addition to the mitigation measures outlined above, opportunities for enhancements include:
- Provision of bee hotels;
 - Pockets of irregularity within the surface of the seaward side of the 5 m high concrete wall around the IBA facility will be provided (as long as the structural integrity of the wall is maintained) to provide niche habitat to facilitate the colonisation by botanical and invertebrate species;
 - Provision of well-drained grassland with a rocky substrate to encourage the growth of grass species suitable to support wall butterfly; and
 - Off-site enhancement in accordance with the Biodiversity Net Gain aspirations for the proposed development.

6 REFERENCES

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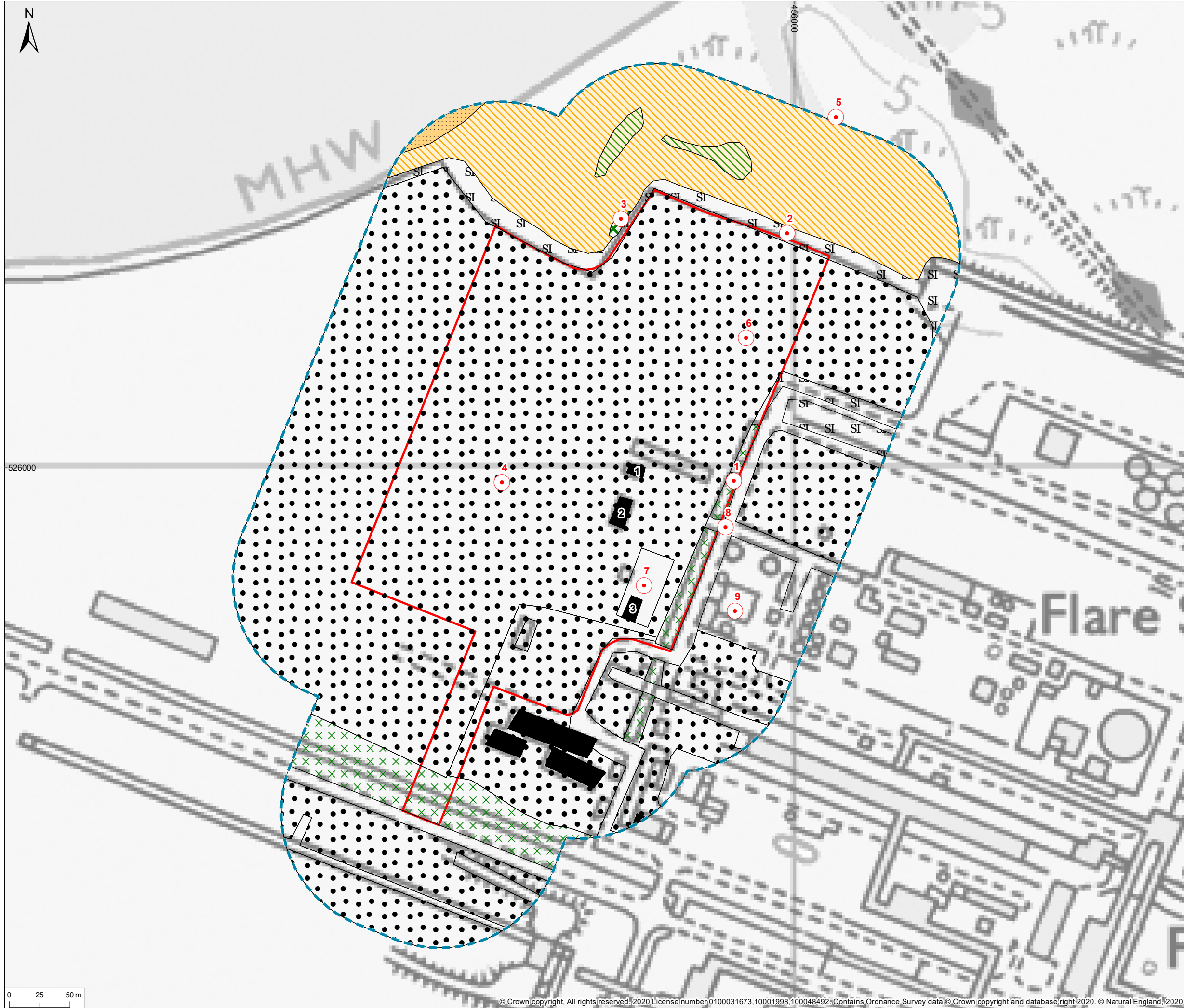
Redcar and Cleveland Borough Council, 2018 Local Plan

Figures

Figure A7.7 – Phase 1 Habitat Survey Results



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Notes
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- Legend**
- Site boundary
 - Phase 1 habitat survey area (100m buffer)
- Phase 1 habitats
- A2.1 - Scrub
 - A2.2 - Scrub - scattered
 - B6 - Poor semi-improved grassland
 - H1.1 - Intertidal sand
 - H6.5 - Sand dune - scrub
 - H6.7 - Sand dune - grass
 - J3.6 - Building (refs 1-3)
 - J4 - Bareground
 - J5 - other (see target note)
 - Target Note

TN	Notes
1	Introduced scrub - Japanese rose and ornamentals
2	Bund
3	Birch scrub
4	Coal waste
5	Sand dunes
6	Temporary ponds
7	Hard stand area - broken up
8	Hard stand - road
9	Industrial works

Rev	Description	By	CB	Date

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Client **Redcar Holdings Limited**

Project **Redcar Energy Centre**

Title **Phase 1 Survey Results**

Status	Drawn By	PM/Checked By
FINAL	KAG	JS
Project Number	Scale @ A3	Date Created
SEC8563	1:3,000	JUL 2020
Figure Number		Rev
A7.7		-

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Annex A

Relevant Legislation

Relevant Legislation

European Protected Species

European Protected Species are defined under the European Commission (EC) Habitats and Species Directive 92/43/EEC and include species such as otter, great crested newt, and all species of bat. The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) translates this European legislation into UK law. The Conservation of Habitats and Species Regulations 2017 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

This legislation makes it an offence to deliberately or recklessly kill, injure or disturb European Protected Species. Their places of shelter are fully protected, and it is an offence to damage, destroy or obstruct access to or otherwise deny the animal use of a breeding site or resting site, whether deliberately or not. It is also an offence to disturb in a manner that is, or in circumstances which are likely to significantly affect the local distribution or abundance of the species, disturb in a manner or circumstances which are likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young. Any activity which is likely to affect such a species requires prior consultation with the relevant statutory nature conservation organisation. In England, this means that Natural England (NE) should be consulted.

A licence from NE is required in cases of potential disturbance of European Protected Species or damage or destruction of a resting site as a result of work activities. Under part 5 of the Regulations licences may be granted for:

- preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Importantly, in order for a licence application to be successful, two tests must be satisfied, namely:

- there is no satisfactory alternative (including retaining the status quo); and
- the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range.

The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 provides protection to a range of species and habitats. Section 9 of the Act provides protection to certain animal species. Enhanced protection is provided for species listed in Schedule 5 which includes water voles and red squirrels. It is an offence to intentionally or recklessly kill, injure or take animals listed in Schedule 5. It is also an offence to recklessly damage, destroy or obstruct access to any place used for shelter or breeding by species listed under Schedule 5. Any works which may potentially cause disturbance to such a species requires prior consultation with Natural England.

The Wildlife and Countryside Act 1981 (as amended) also protects against the spread of invasive non-native plant and animal species (INNS). Specifically, in relation to plants, it is an offence under this legislation to plant or otherwise cause a plant to grow in the wild at a place outwith its native range and includes species such as Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and rhododendron (*Rhododendron ponticum* and hybrids).

In addition to the above, all wild birds, their nests and their eggs are protected under the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to intentionally or recklessly:

- kill, injure or take any wild bird (excluding certain specified game and other licence-controlled species);
- take, damage, destroy or otherwise interfere with the nest of any wild bird while it is in use or being built;
- obstruct or prevent any wild bird from using its nest; or
- take or destroy the egg of any wild bird.

In addition, there are some rare breeding species, such as golden eagle, barn owl or kingfisher, which are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), which receive extra protection, making it an offence to intentionally or recklessly:

- disturb any species listed under Schedule 1 of the Act whilst at the nest site, or while building a nest;
- disturb the dependent young of any species listed under Schedule 1;
- disturb any species listed under Schedule 1 which leks while it is doing so;
- harass any wild bird included in Schedule 1A; or
- take, damage, destroy or otherwise interfere with any nest habitually used by any wild bird included in Schedule A1, even when that nest is not in use.

The Protection of Badgers Act 1992

Badgers are protected under the Protection of Badgers Act 1992. It is an offence to wilfully take, injure or kill a badger, or intentionally or recklessly damage or destroy a sett or prevent access to it and to disturb a badger when it is occupying a sett. In addition, badgers are afforded protection from cruel ill-treatment. This has been defined to include preventing a badger access to its sett, as well as causing the loss of significant foraging resources within a badger territory.

A licence from NE is required in cases of potential disturbance of badgers or damage or destruction of a badger sett as a result of work activities.