

# **Environmental Statement: Volume III**

## **Appendix 9A: Preliminary Ecological Appraisal**

## **VPI Immingham OCGT Project**

Document Ref: 6.4.10  
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### **The Immingham Open Cycle Gas Turbine Order**

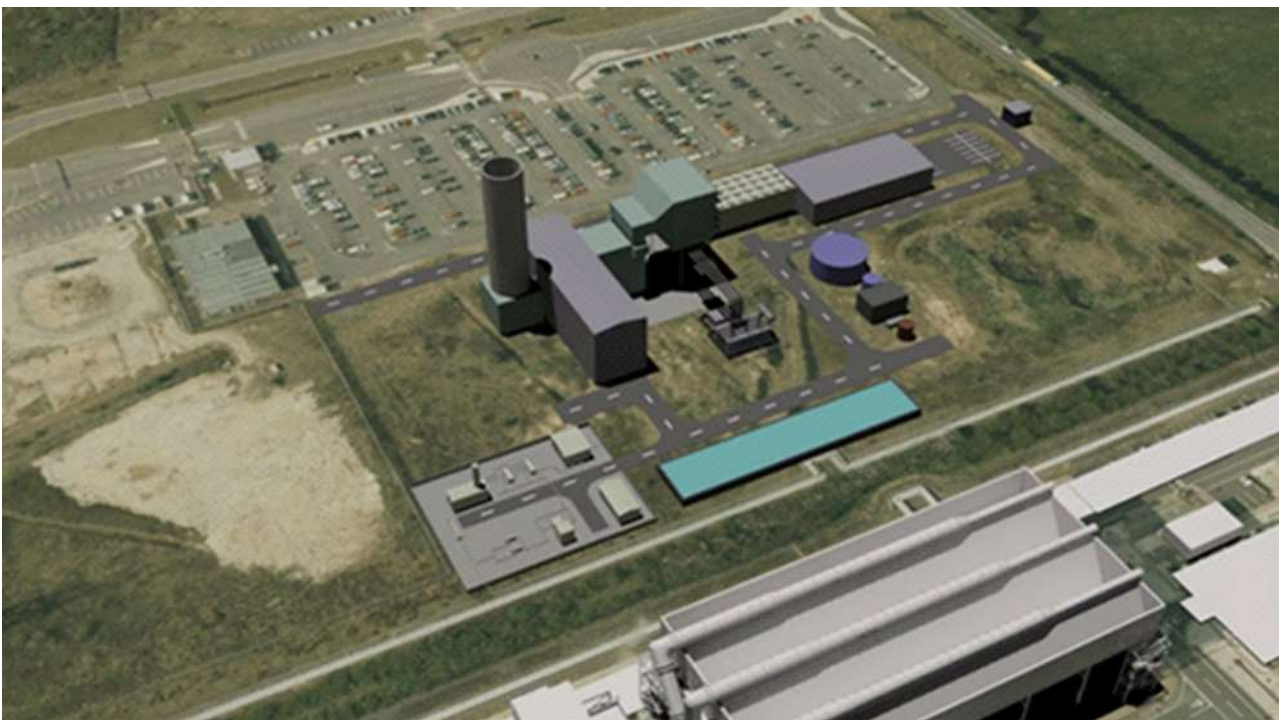
**Land to the north of and in the vicinity of the VPI Immingham Power Station, Rosper Road, South Killingholme, Lincolnshire, DN40 3DZ**

### **Environmental Statement Volume III Appendix 9A: Preliminary Ecological Appraisal**

**The Planning Act 2008**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 - Regulation 5(2)(q)**

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**Applicant: VPI Immingham B Ltd**

**Date: April 2019**

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## DOCUMENT HISTORY

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## GLOSSARY

Abbreviation	Description
CHP	Combined Heat and Power
CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW	Countryside and Rights of Way
DCO	Development Consent Order
EclA	Ecological Impact Assessment
EMS	European Marine Site
ES	Environmental Statement
GLNP	Greater Lincolnshire Nature Partnership
ha	Hectare
HRA	Habitat Regulations Assessment
JNCC	Joint Nature Conservation Committee
km	Kilometre
LBAP	Lincolnshire Biodiversity Action Plan
LSE	Likely Significant Effects
LWS	Local Wildlife Site
m	Metre
MAGIC	Multi-Agency Geographic Information for the Countryside
MW	Megawatt
OS	Ordnance Survey
NERC	Natural Environment and Rural Communities Act
NLC	North Lincolnshire Council
NPPF	National Planning Policy Framework
OCGT	Open Cycle Gas Turbine
OMH	Open Mosaic Habitat
PEA	Preliminary Ecological Appraisal
PINS	The Planning Inspectorate
SAC	Special Area of Conservation
SCI	Sites of Community Importance
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TLOR	Total Lindsey Oil Refinery
WCA	Wildlife and Countryside Act
WFD	Water Framework Directive

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## 1.0 SUMMARY

- 1.1.1 VPI Immingham B Ltd ('VPIB' or the 'Applicant') is seeking development consent for the construction, operation and maintenance of a new gas-fired electricity generating station with a gross output capacity of up to 299 megawatts ('MW'), including electrical and gas supply connections, and other associated development (the 'Proposed Development'). The Proposed Development is located primarily on land (the 'Site') to the north of the existing VPI Immingham Power Station, Rosper Road, South Killingholme, North Lincolnshire, DN40 3DZ.
- 1.1.2 The Site is primarily located on land immediately to the north of the Existing VPI Combined Heat and Power (CHP) Plant Site. Immingham Dock is located approximately 1.5 km to the south east of the Site at its closest point. The Humber ports facility is located approximately 500 m north and the Humber Refinery is located approximately 500 m to the south. The Site is located entirely within the boundary of the administrative area of North Lincolnshire Council ('NLC'), a unitary authority. The different parts of the Site are illustrated in the Works Plans (Application Document Ref: 4.3).
- 1.1.3 The Site is located approximately 1.4 km south-west of the Humber Estuary European Marine Site (EMS), which encompasses a Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar site and a Site of Special Scientific Interest (SSSI). The DCO application therefore includes a No Significant Effects Report (NSER) (Application Document Reference 5.10) to support a Habitats Regulation assessment screening for Likely Significant Effects (LSE) by the relevant competent authority.
- 1.1.4 The purpose of this a Preliminary Ecological Appraisal (PEA) was to provide a high level appraisal of the ecological risks and opportunities associated with the Proposed Development' and to provide a basis for the assessment of the likely relevant ecological features that might be impacted as well as requirements for further survey and impact assessment. The desk study and Phase 1 habitats assessment associated with this PEA were undertaken in September 2017 and May and July 2018.
- 1.1.5 The PEA identified requirements for follow-up protected species surveys. These further surveys were undertaken in spring and summer 2018. No protected species were identified within the Open Cycle Gas Turbine (OCGT) Power Station Site or the Existing VPI CHP Plant Site; however, the Open Mosaic Habitat brownfield mosaic habitat within the OCGT Power Station Site was found to support a good diversity of terrestrial invertebrates. The following surveys were undertaken to support the ecological impact assessment:
- Habitats – the habitat assemblage within the OCGT Power Station Site represents an example of the Open Mosaic Habitats on Previously Developed Land (OMH) habitat type, which has developed through natural colonisation of a previously disturbed area;
  - Great crested newt (*Triturus cristatus*) – eDNA surveys confirmed that the species was likely absent from ponds within the Proposed Development boundary and within 250m, surveys are currently on-going to confirm absence;

- Reptiles – no reptiles were recorded within the OCGT Power Station Site, and there is no suitable reptile habitat within the Existing VPI CHP Plant Site;
- Breeding birds – an assemblage of low numbers of common species was recorded within OCGT Power Station Site , and there was limited nesting habitat within the Existing VPI CHP Plant Site; and
- Terrestrial invertebrates – assemblage of County importance recorded within the OCGT Power Station Site.

1.1.6 All of the relevant protected species surveys have been undertaken or are currently being undertaken (this refers to Pond 3 whereby the likely absence of great crested newts is being confirmed through additional surveys), and therefore there are no recommendations for further surveys to support the DCO application in this PEA. Detailed survey results are presented in the relevant technical appendices (Appendices 9C-9H, Environmental Statement (ES) Volume III). Table 9A.8 of this report set out the rationale for scoping out protected species surveys.

## 2.0 INTRODUCTION

2.1.1 AECOM Infrastructure and Environment Ltd (AECOM) has been commissioned by VPI Immingham B Ltd ('the Applicant' or 'VPI' as appropriate) to prepare a Preliminary Ecological Appraisal (PEA) to accompany a Development Consent Order (DCO) for the construction, operation and maintenance of a new gas-fired electricity generating station with a gross output capacity of up to 299 megawatts ('MW'), including electrical and gas supply connections, and other associated development (the 'Proposed Development') on land to the north of the existing VPI Immingham Power Station at Rosper Road, South Killingholme, Immingham, DN40 3DZ ('The Site').

2.1.2 The Site is roughly centred on grid reference TA 161 764 and comprises the following main parts:

- OCGT Power Station Site;
- Access Site;
- Temporary Construction and Laydown Site;
- Gas Connection Site;
- Electrical Connection Site; and
- Utilities and Services Connections Site.

The different parts of the Site are illustrated in the Works Plans (Application Document Ref: 4.3).

2.1.3 Electrical, Gas and services connections within the existing built footprint of the Existing VPI CHP Plant Site, were discounted from the ecology survey and assessment work, because there are located entirely within an existing built environment and will not affect any natural or semi-natural habitats.

## 2.2 Purpose of Survey

2.2.1 The boundary of the Site is shown by the red line boundary on Figure 9A.2, Annex 9A.1 (Phase 1 Habitat Map). A larger area has been subject to Phase 1 Habitat survey than is present within the red line boundary; this is because the original survey was undertaken in 2017 prior to the finalisation of the Site boundary. Subsequent updates to the Phase 1 Habitat survey were undertaken as the layout of the scheme evolved.

2.2.2 This PEA was initially commissioned to determine whether there are known or potential ecological features (nature conservation designations, and protected and notable habitats and species) that may constrain or influence the design and implementation of the Proposed Development. The approach applied when undertaking this PEA accords with the Guidelines for Preliminary Ecological Appraisal published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). This PEA addresses relevant wildlife legislation and planning policy as summarised in Section 3 of this report, and is consistent with the requirements of British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development.



## **2.3 Scope of Works**

2.3.1 In order to deliver the PEA, a desk study and an extended Phase 1 Habitat survey were undertaken by an appropriately experienced AECOM ecologist, to identify ecological features within the Site and the wider potential zone of influence of the Proposed Development (where access to adjacent land had been agreed). The potential zone of influence was defined with reference to available information about the likely nature of the Proposed Development.

2.3.2 The purpose of the PEA was to:

- Identify and categorise all habitats associated with the Proposed Development and any adjacent areas where there may be potential for direct or indirect effects (the “zone of influence”);
- Undertake an appraisal of the potential of the habitats recorded to support protected or notable species of fauna and flora;
- Provide advice on any potential ecological constraints and opportunities in the zone of influence, including the identification (where relevant) of any requirements for follow-up habitat and species surveys and/or requirements for ecological mitigation; and
- Provide a map showing the location of the identified ecological features of relevance.

2.3.3 The report provides a high level appraisal of the ecological risks and opportunities associated with the Proposed Development and to provide a basis for the assessment of the likely relevant ecological features that might be impacted, and requirements for further survey and impact assessment to assess this further.

2.3.4 This report makes evidence based recommendations on the scope of further work (where necessary) to support the DCO application. High level recommendations are made on the basis of:

- Potential options for the avoidance, mitigation or compensation of the potential impacts of the Proposed Development (where known or where they can reasonably be anticipated) on the identified ecological features in accordance with objectives to deliver No Net Loss for biodiversity, and
- Potential enhancements that could be delivered in accordance with objectives to secure Net Gain for biodiversity.

## **2.4 Background Information**

2.4.1 The ecological survey work undertaken by AECOM, as described above, follows an earlier walkover of the Site to identify likely environmental constraints to the Proposed Development by SLR Consulting in January 2017 (SLR Consulting, 2017). Wintering bird surveys were undertaken on the OCGT Power Station Site (and adjacent brownfield land to the west between the Proposed Development and Total Lindsey Oil Refinery (TLOR)) in the period January to March 2017 (Catley, 2017).



- 2.4.2 A planning application was submitted to North Lincolnshire Council in 2018 for VPI Energy Park 'A', which is proposed 49.9MW gas fired power station (Planning ref: PA/2018/918), to be located on land to the west of the Proposed Development between the Proposed Development and TLOR. AECOM prepared the Environmental Statement (ES) for the scheme, which was granted planning permission on 7<sup>th</sup> September 2018. Baseline ecological information collected for this application is relevant to the Proposed Development, and habitat and protected surveys of the two Sites (which are adjacent) were undertaken concurrently in spring and summer 2018.

### 3.0 WILDLIFE LEGISLATION AND PLANNING POLICY

#### 3.1 Wildlife Legislation

3.1.1 The following wildlife legislation is potentially relevant to the Proposed Development (Table 9A.1). This legislation has been considered when planning and undertaking this PEA using the methods described in Section 4, when identifying potential constraints to the Proposed Development, and when making recommendations for further survey, design options and mitigation, as discussed in Section 6. Compliance with legislation may require the attainment of relevant protected species licences prior to the implementation of the Proposed Development.

3.1.2 Further information on the requirements of the above legislation is provided as Annex 9A.2.

**Table 9A.1: Summary of Relevant Legislation**

Document	Requirements/ Purpose
The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations)	Affords protection to European Protected Species, such as bats and great crested newt ( <i>Triturus cristatus</i> ), listed on Schedules 2 (animals) and 5 (plants). It is an offence (subject to exceptions) to deliberately capture, kill, disturb or trade in listed animals. In certain circumstances, licences can be granted to permit some actions prohibited under the Act.  The Regulations require that competent authorities must take such steps in the exercise of their functions as they consider appropriate to secure the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds ... as appropriate, and having regard to the requirements of Article 2 of the new Wild Birds Directive. This includes the use of planning and development control measures.
Wildlife and Countryside Act 1981 (as amended) (WCA)	Part 1 of the Act affords general protection to all species of wild bird and specific protection to flora and fauna listed on Schedules 1 (birds protected by special penalties), 5 (other animals) and 8 (flora, fungi and lichens).  In certain circumstances, licences can be granted to permit some actions prohibited under the Act.  The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, including prohibiting the planting and spread of plants listed in Schedule 9.
Countryside and Rights of Way (CRoW) Act 2000	The Act increases powers for the protection and management of Sites of Special Scientific Interest (SSSIs) and places a duty on public bodies to further the conservation and enhancement of SSSIs.
Natural Environment and Rural Communities (NERC) Act 2006	Section 41 (s41) includes a list of habitats and species of principal importance for nature conservation in England which is to be used by decision-makers to guide the implementation of their duties under section 40 of the Act, so as to have regard to the conservation of biodiversity in England, when carrying out their normal functions.
Protection of [redacted] Act 1992	If [redacted] is present, the legislation may have a bearing on post-consent implementation and mitigation, and the baseline evidence required to support development of this. Legislation makes it an offence to kill or take a [redacted], to cruelly ill-treat a [redacted] or to interfere with a [redacted], including disturbing a [redacted] while it is occupying a sett. In certain circumstances, licences can be granted to permit some actions prohibited under the Act.

Document	Requirements/ Purpose
Water Framework Directive (WFD) 2017	Proposed developments or activities that have the potential to affect the water environment require a WFD Assessment. Compliance with the WFD means attainment of good ecological status, prevention of deterioration in status, and prevention of failure to achieve future attainment of good status where it is not already achieved within waterbodies. However, Article 4.7 provides legislation for exemption conditions that could allow implementation of schemes that cause deterioration in ecological status, for example for reasons of overriding public interest.

### 3.2 Relevant Planning Policy and Related Guidance

3.2.1 Relevant national and local planning policies and related guidance applicable to North Lincolnshire are detailed in Table 9A.2. For the precise wording of each specific policy please refer back to the source documents. This planning policy has been considered when assessing potential ecological constraints and opportunities identified by the desk study and field surveys; and, when assessing requirements for further survey, design options and ecological mitigation.

Table 9A.2: Summary of Planning Policy

Document	Planning Policy	Purpose
National Planning Policy Framework (NPPF)	Section 15	<p>The National Planning Policy Framework (NPPF) was originally published on 27<sup>th</sup> March 2012 and detailed the Government's planning policies for England and how these are expected to be applied. The NPPF was then revised on 24<sup>th</sup> July 2018.</p> <p>The NPPF states the commitment of the UK Government to minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.</p> <p>It specifies the obligations that the Local Authorities and the UK Government have regarding statutory designated sites and protected species under UK and international legislation and how this it to be delivered in the planning system. Protected or notable habitats and species can be a material consideration in planning decisions and may therefore make some sites unsuitable for particular types of development, or if development is permitted, mitigation measures may be required to avoid or minimise impacts on certain habitats and species, or where impact is unavoidable, compensation may be required.</p> <p>The NPPF is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution.</p>
North Lincolnshire Core Strategy	CS5	New development should incorporate appropriate landscaping and planting which enhances biodiversity and contribute to habitat linkages.
	CS16	Protect, enhance and support a diverse multi-functional landscape, including through the protection of trees and hedgerows.

Document	Planning Policy	Purpose
	CS17	Promote effective stewardship of biodiversity resources by protecting national and international nature conservation designations, paying due regard to the presence of European and nationally protected species, protecting and maintaining features of biodiversity and geological interest, maintaining wildlife networks and green corridors, and ensuring ecological enhancement through good design.
	CS21	Planning applications for mineral extraction should, where appropriate, contribute to the attainment of local biodiversity targets. [e.g. as detailed in the Lincolnshire Biodiversity Action Plan]
The North Lincolnshire Local Plan	LC1	Affords protection to international nature conservation designations.
	LC2	Affords protection to national nature conservation designations.
	LC4	Affords protection for sites of local nature conservation importance.
	LC5	Prohibits development that would have an adverse impact on protected species, except where appropriate mitigation can be delivered.
	LC6	Promotes ecological enhancement through the creation of new habitats, including restoration of former mineral workings to a nature conservation end use.
Standing Advice	-	The purpose of standing advice is to guide decision-makers on the determination of proposals with potential to affect protected species. The guidance sets out responsibilities and minimum requirements for survey and mitigation.
Providing and protecting habitat for wild birds	-	Standing advice to local planning authorities on how they should maintain wild bird populations by supporting and protecting their habitats. This guidance has been prepared to support delivery of a legal obligation specified through amendment of the Habitats Regulations. It is important to acknowledge that this guidance requires competent authorities to 'consider' and 'take steps', but it does not require the complete protection of all bird habitats, the mitigation of all losses, and there are no national population targets have been set for wild birds.

## 4.0 METHODS

### 4.1 Desk Study

- 4.1.1 A desk study was carried out to identify nature conservation designations, and protected and notable habitats and species potentially relevant to the Proposed Development.
- 4.1.2 A stratified approach was taken when defining the desk study area, based on the likely worst case zone of influence of the proposed development on different ecological features, and an understanding of the maximum distances typically considered by statutory consultees. Accordingly, the desk study identified any international nature conservation designations within 5 km of the central grid reference of the Site<sup>1</sup>; other statutory nature conservations designations within 2 km, and local non-statutory nature conservation designations and protected and notable habitats and species within 1 km.
- 4.1.3 The desk study was carried out using the data sources detailed in Table 9A.3. Protected and notable habitats and species include those listed under Schedules 1, 5 and 8 of the WCA; Schedules 2 and 5 of the Habitats Regulations; species and habitats of principal importance for nature conservation in England listed under section 41 (s41) of the NERC Act; and other species that are Nationally Rare, Nationally Scarce or listed in national or local Red Data Lists and Biodiversity Action Plans.

**Table 9A.3: Desk study data sources**

Data Source	Date obtained	Data Obtained
Multi-Agency Geographic Information for the Countryside (MAGIC) website	30/07/2018	<ul style="list-style-type: none"> <li>• International statutory designations within 5 km.</li> <li>• Other statutory designations within 2 km.</li> <li>• Ancient woodlands and notable habitats within 1 km.</li> <li>• Higher Level Environmental Stewardship agreements applied to the Site.</li> <li>• Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints.</li> </ul>
Greater Lincolnshire Nature Partnership	30/07/2018	<ul style="list-style-type: none"> <li>• Non-statutory designations within 1 km.</li> <li>• Protected and notable species records within 1 km (records for the last 10 years only).</li> </ul>
Ordnance Survey 1:2500 Pathfinder maps and aerial photography	30/07/2018	<ul style="list-style-type: none"> <li>• Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of</li> </ul>

<sup>1</sup> This area was extended when undertaking detailed Ecological Impact Assessment (EclA) as reported in the Environmental Statement (ES) to consider e.g. air quality effects, where the potential zone of influence of the proposed development may be greater than 5 km.

Data Source	Date obtained	Data Obtained
		potential protected and notable species constraints.
Lincolnshire BAP (LBAP) (Lincolnshire Biodiversity Partnership, 2011)	30/07/2018	<ul style="list-style-type: none"> <li>• General information on Local Biodiversity Action Plan Priority Habitats and Species.</li> </ul>
North Lincolnshire Local Plan Proposals Map	30/07/2018	<ul style="list-style-type: none"> <li>• Non-statutory designations within 1 km.</li> <li>• Designated green corridors, wildlife networks and other such features.</li> </ul>
VPI Immingham – Site Walkover Report (SLR, 2017)	September 2017	<ul style="list-style-type: none"> <li>• Habitat and protected species appraisal for the OCGT Power Station Site.</li> </ul>
VPI Immingham – Wintering Bird Report (Catley, 2017)	September 2017	<ul style="list-style-type: none"> <li>• Wintering bird survey within the OCGT Power Station Site.</li> </ul>

## 4.2 Field Survey

### Phase 1 Habitat Survey

- 4.2.1 A Phase 1 Habitat survey was undertaken in accordance with the standard survey method (Joint Nature Conservation Committee, 2010). Phase 1 Habitat survey is a standard method of environmental audit. It involves categorising different habitat types and habitat features within a survey area. The information gained from the survey can be used to determine the likely ecological value of a site, and to direct any more specific survey work which may need to be carried out prior to the submission of a planning application. The standard Phase 1 Habitat survey method can be “extended” to record target notes on protected, notable and invasive species.
- 4.2.2 The Phase 1 Habitat survey was originally undertaken on 7<sup>th</sup> September 2017 by a suitably experienced AECOM ecologist who recorded and mapped habitat types present within the survey area, along with any associated relevant ecological features observed. This survey encompassed land within the OCGT Power Station Site (the survey was undertaken concurrently with the land to the west, which is within the boundary of the proposed VPI Energy Park A application). The Phase 1 Habitat survey of the OCGT Power Station Site was updated on 24<sup>th</sup> May 2018, and was extended to cover additional areas of land surrounding the VPI CHP plant to the south that were not part of the original survey scope (due to changes in the red line boundary in the intervening period). The survey area is shown by the red line boundary on Figure 9A.2, Annex 9A.1.
- 4.2.3 Where relevant to the PEA, target notes (Annex 9A.3) were recorded and the position of these is shown on the Phase 1 Habitat map (Figure 9A.2). Typical and notable plant species were recorded for different habitat types and reflect the conditions at the time of survey. This was not intended to be a detailed inventory of the plant species present in the survey area, as this is not required for the purposes of Phase 1 Habitat survey.

### **Appraisal of potential suitability of habitats to support protected and notable species**

- 4.2.4 An appraisal was made of the potential suitability of the habitats present to support protected and notable species of plants or animals. Field signs, habitat features with potential to support protected species and any sightings or auditory evidence were recorded when encountered. No detailed surveys were carried out for any particular species, because such surveys are beyond the scope of this PEA, with the exception of the following:
- Examination of aerial photography and 1:25,000 Ordnance Survey mapping to attempt to identify all potential permanent standing waters within 500 m of the Proposed Development. This process could not guarantee to definitively identify all waterbodies present, but is the best that can be achieved within the limits of available data; and
  - Inspection of all of the accessible standing waters their suitability for great crested newt. . In particular, the aim was to identify permanent waterbodies (referred to as ponds in this report) which would need further survey, and temporary standing waters which could be discounted as they would not retain water for long enough to allow breeding by great crested newt.
- 4.2.5 A note was made of visible instances of invasive non-native plant species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), including Japanese knotweed (*Reynoutria japonica*). Locations of plants or stands of any such invasive non-native plant species found were recorded.
- 4.2.6 Section 6 of this report identifies further requirements for species survey based on the results of the habitat survey. These surveys were completed in spring and summer 2018.

## **4.3 Limitations**

### **Desk Study**

- 4.3.1 The data obtained from the sources listed in Table 9A.3 is based on existing records but does not necessarily constitute a comprehensive list of protected and notable species records. These records are not exhaustive, as there is currently no national or regional policy for systematic data gathering. Therefore, absence of data does not constitute evidence of absence. It is also possible that other data exist within this area that has not been made available to AECOM. The quality of the ecological data from the different sources may be highly variable.

### **Field Survey**

- 4.3.2 No limitations to the undertaking of the Phase 1 Habitat survey and appraisal of the potential of habitats to support protected and/ or notable species were identified. All land within the Site boundary was made accessible for the purposes of the Phase 1 Habitat survey.



- 4.3.3 The only part of the Site that was not readily accessible for survey was the ditch between the OGCT Power Station site and the Existing VPI CHP Plant Site. The ditch was deep and steep-sided, and was therefore appraised from the top of the banks only for health and safety reasons. However, this is not considered to represent a significant limitation to the completion of the protected species appraisal.
- 4.3.4 For health and safety reasons it was not possible to undertake great crested newt presence/absence surveys of Pond 3 which is located within the TLOR site. Additional surveys to confirm the likely absence of great crested newts within the Site are currently being undertaken and will be reported in a supplementary report.

## 5.0 RESULTS

### 5.1 Nature Conservation Designations

#### Statutory Designations

- 5.1.1 Table 9A.4 details the statutory nature conservations designations identified by the desk study, based on the method given in Section 4 of this report. The designations are listed in descending order, with those closest to the Proposed Development listed first. The designations are shown on Figure 9A.1 in Annex 9A.1.
- 5.1.2 The Humber Estuary SAC, SPA, Ramsar and SSSI is approximately 1.4 km to the north-east of the Site. These designations are largely overlapping and together constitute the Humber Estuary EMS.

**Table 9A.4: Statutory nature conservation designations within 5 km**

Designation	Reason(s) for Designation	Relationship to the Site
Humber Estuary Special Area of Conservation (SAC)	Internationally important for its estuary and inter-tidal mudflat and sandflat habitats. Other qualifying features encompass: Habitats: Sandbanks which are slightly covered by sea water all the time Coastal lagoons Salicornia and other annuals colonizing mud and sand Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) Embryonic shifting dunes Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") Fixed coastal dunes with herbaceous vegetation ("grey dunes") Dunes with <i>Hippophae rhamnoides</i> Species: Sea lamprey ( <i>Petromyzon marinus</i> ) River lamprey ( <i>Lampetra fluviatilis</i> ) Grey seal ( <i>Halichoerus grypus</i> )	1.4 km north-east
Humber Estuary Special Protection Area (SPA)	The estuary supports important numbers of waterbirds (especially geese, ducks and waders) during the migration periods and in winter. In summer, it supports important breeding populations of bittern ( <i>Botaurus stellaris</i> ), marsh harrier ( <i>Circus aeruginosus</i> ), avocet ( <i>Recurvirostra avosetta</i> ) and little tern ( <i>Sterna albifrons</i> ).	1.4 km north-east

Designation	Reason(s) for Designation	Relationship to the Site
Humber Estuary Ramsar	Internationally important as a representative example of a near-natural estuary with the following component habitats: dune systems and humid dune slacks, estuarine waters, intertidal mud and sand flats, saltmarshes, and coastal brackish/saline lagoons. Internationally important for its breeding colony of grey seal, and its assemblage of non-breeding and wintering waterfowl and the component populations of individual bird species.	1.4 km north-east
Humber Estuary Site of Special Scientific Interest	Supports a series of nationally important habitats. These are the estuary itself (with its component habitats of intertidal mudflats and sandflats and coastal saltmarsh) and the associated saline lagoons, sand dunes and standing waters. The site is also of national importance for the geological interest at South Ferriby Cliff (Late Pleistocene sediments) and for the coastal geomorphology of Spurn. The estuary supports nationally important numbers of 22 wintering waterfowl and nine passage waders, and a nationally important assemblage of breeding birds of lowland open waters and their margins. It is also nationally important for a breeding colony of grey seal ( <i>Halichoerus grypus</i> ), river lamprey ( <i>Lampetra fluviatilis</i> ) and sea lamprey ( <i>Petromyzon marinus</i> ), a vascular plant assemblage and an invertebrate assemblage.	1.4 km north-east

### Non-statutory Designations

- 5.1.3 Table 9A.5 details the non-statutory nature conservation designations identified by the desk study based on the method given in Section 4 of this report. Three Local Wildlife Sites (LWSs) were identified in the desk study area. The designations are shown on Figure 9A.1 in Annex 9A.1.
- 5.1.4 There are no ancient woodlands or geological designations in the search area, and there are no Higher Level Countryside Stewardship agreements applied to land in the boundary of the Proposed Development.

**Table 9A.5: Non-statutory nature conservation designations within 1 km**

Designation	Reason(s) for Designation	Relationship to the Proposed Development
Burkinshaw's Covert Local Wildlife Site (LWS)	Woodland with scattered scrub and seasonally wet areas which support rapidly changing flora such as St John's-wort ( <i>Hypericum perforatum</i> ), meadow vetchling ( <i>Lathyrus pratensis</i> ), hairy buttercup ( <i>Ranunculus sardous</i> ) and glaucous sedge ( <i>Carex flacca</i> ).	0.4 km north

Designation	Reason(s) for Designation	Relationship to the Proposed Development
Station Road Field LWS	Predominantly grassland site with decent floristic diversity and small area of wetland which supports good range of common farmland bird and butterfly species (including yellowhammer ( <i>Emberiza citronella</i> ), meadow brown ( <i>Maniola jurtina</i> ) and ringlet ( <i>Aphantopus hyperantus</i> )). Pond adjacent to site boundary held breeding great crested newts ( <i>Triturus cristatus</i> ) in 2006.	0.4 km north-east
Rosper Road Pools LWS	Artificial Flood Relief Reservoir with associated species-rich grassland (wetland areas have now mainly dried up). Site supports many breeding, wintering and migrant birds, associated with both wetland and scrubby habitat. Water vole ( <i>Arvicola amphibius</i> ) was recorded in 2002.	0.3 km south-east

## 5.2 Habitats

5.2.1 As this assessment pre-dates the finalisation of the red line boundary and the parts of the Site, it covers an area larger than the Order Limits of the DCO. Therefore, for clarity in reporting the habitats present across this area, the areas subject to Phase 1 Habitat survey have been referred to separately as follows:

- Power Station Area – this includes the OCGT Power Station Site and the Access and Temporary Construction and Laydown Sites to the north of the Existing VPI CHP Plant Site. This area covers approximately 5.79 ha of brownfield land between the TLOR car park to the north, Rosper Road to the east and the unnamed drainage ditch to the south; and
- VPI CHP Area – this includes the areas surrounding the Existing VPI CHP Plant Site including Access Site, and Temporary Construction and Laydown Sites, Gas, Electricity, Utilities and Service Connections Sites are excluded for the reasons given above as they are all within the Existing VPI CHP Plant Site, This area covers approximately 12.9 ha in total.

5.2.2 A summary of the approximate habitat types present within the area assessed is provided in Table 9A.6 below. Brief descriptions of the habitat types in the Power Station Area and the VPI CHP Area are provided below.

5.2.3 A Phase 1 Habitat plan is provided in Annex 9A.1, target notes are presented in Annex 9A.3 and photographs of the Site are presented in Annex 9A.4.

**Table 9A.6: Habitats present within the area assessed**

Habitat	Approximate Extent within Proposed Development Area (ha)	Approximate Proportion of the Proposed Development Area
Semi-improved neutral grassland	0.8	6.2%
Continuous scrub	0.8	6.0%
Ephemeral/ short perennial	5.1	39.5%
Scattered scrub	0.01	0.07%
Bare ground	3.5	27.0%
Hard standing (car park/roads)	2.1	16.2%
Tall ruderal	0.5	3.9%
Swamp	0.04	0.3%
Standing water	0.01	0.07%
Wet ditch	334m	-
Dry ditch	134m	-
Plantation broad-leaved woodland	0.004	0.03%
No survey access (not mapped)	0.09	0.7%
Fence	331m	-

### Phase 1 Habitat Types within the Power Station Area

- 5.2.4 The Power Station Area is located on a brownfield plot that is bound to the north by the tarmac car parking area at the main TLOR site gate, to the east by Rosper Road, to the south by a drainage ditch and the VPI CHP plant beyond, and to the west by further brownfield land (within the footprint of the proposed VPI Energy Park 'A') and the extensive industrial site of the TLOR.
- 5.2.5 The habitats present have developed through natural colonisation of a previously disturbed area, which it is understood was used for the storage of material cleared from the area north of the Power Station Area during construction of the adjacent TLOR car park (SLR Consulting, 2017). Consequently the habitat is undulating with vegetated

mounds of rubble/ spoil, and has areas of seasonal standing water and swamp vegetation where the drainage is impeded.

### **Semi-improved neutral grassland**

- 5.2.6 This is the main habitat type in the northern part of the Power Station Area (Photo 1). This grassland is typified by a rank unmanaged grass dominated sward with abundant tufted hair-grass (*Deschampsia cespitosa*) and locally frequent false-fox sedge (*Carex otrubae*), indicating drainage impeded ground. The grassland supports a fairly diverse assemblage of forb species including locally abundant fleabane (*Pulicaria dysenterica*), locally frequent teasel (*Dipsacus fullonum*), colt's-foot (*Tussilago farfara*) and creeping thistle (*Cirsium arvense*), with occasional wild carrot (*Daucus carota*).

### **Standing waterbodies**

- 5.2.7 Two small areas of shallow seasonal standing water are present that are dominated by emergent swamp vegetation (Ponds 1 and 2), which have developed on areas of impeded drainage. . These were found to dry out completely in late spring/ early summer 2018, and are likely to dry annually.
- 5.2.8 Two further areas of ephemeral shallow standing water within the Power Station Area are present; one is in an area of impeded drainage (Pond 4) and the fourth is a linear abandoned archaeological trial trench from previous site investigations (Pond 5). These waterbodies also dried out by early summer 2018 and are likely to dry annually.

### **Swamp vegetation**

- 5.2.9 Small localised areas where the ground is drainage impeded support abundant sea-club rush (*Bolboschoenus maritimus*) and bulrush (*Typha latifolia*) (Photograph 2).

### **Ephemeral/ short perennial**

- 5.2.10 This is a transitional habitat resulting from colonisation of bare ground and spoil (including hummocks of limestone pebbles) by ruderal plant species. The habitat grades into the semi-improved neutral grassland and tall ruderal habitat (Target Note 4; Photographs 5-13).
- 5.2.11 Higher plants occur at high cover (>50% total cover), with forb species present including locally abundant creeping cinquefoil (*Potentilla reptans*) and colt's-foot with frequent bristly ox-tongue (*Helminthotheca echioides*), fleabane, willowherbs (*Epilobium* spp.) and ribwort plantain (*Plantago lanceolata*). There is occasional scentless mayweed (*Tripleurospermum inodorum*), yellow-wort (*Blackstonia perfoliata*), common century (*Centaureum erythraea*), and common ragwort (*Senecio jacobaea*) and, rarely occurring knapweed (*Centaurea nigra* agg.) and blue fleabane (*Erigeron acris*).

### **Tall ruderal herbs**

- 5.2.12 The raised areas of the bunds and spoil heaps have been colonised by tall ruderal species including hemlock (*Conium maculatum*), creeping thistle and great willowherb

(*Epilobium hirsutum*) (Target Note 3; Photograph 14). This habitat contributes to the Open Mosaic Habitat (OMH) habitat type detailed in Section 5.3 of this report.

#### **Scattered scrub**

- 5.2.13 Scattered bushes of willow (*Salix* spp.) occur locally, mainly associated with areas of tall ruderal herbs.

#### **Phase 1 Habitat Types within the VPI CHP Area**

- 5.2.14 Habitats within the VPI CHP Area 'wrap around' the Existing VPI CHP Plant Site, which lies to the south of the Power Station Area. The majority of the habitats surveyed in this area appeared to have been relatively recently disturbed and were thus of much lower botanical interest relative to the brownfield habitats within the Power Station Area.

#### **Bare ground**

- 5.2.15 There was an extensive area of bare ground and hard standing between the VPI CHP Area and Rosper Road. It also includes the existing access tracks running to the south-west and north of the Existing VPI CHP Plant Site (Photograph 17).

#### **Ephemeral/ Short perennial**

- 5.2.16 This habitat type dominates the area the south of the VPI CHP Plant Site and comprises a homogenous stand of early successional ephemeral/short perennial vegetation, with patches of bare ground/hard standing formed on a flat area of artificial substrate. Herb species recorded included beaked hawk's-beard (*Crepis vesicaria*), buck's-horn plantain (*Plantago coronopus*), white clover (*Trifolium repens*), lesser trefoil (*Trifolium dubium*), common mouse-ear (*Cerastium fontanum*), narrow-leaved ragwort (*Senecio inaequidens*), scentless mayweed (*Tripleurospermum inodorum*), colt's-foot, common stork's-bill (*Erodium cicutarium*) and common centuray. There was locally frequent Yorkshire fog and patches where acrocarpous mosses are abundant (Target Note 8, Photographs 18-20). There was localised willow scattered scrub associated with this habitat.

### **5.3 Notable Habitats**

- 5.3.1 The habitat assemblage within the Power Station Area is considered to represent an example of the OMHs on Previously Developed Land (OMH) priority habitat type. OMH is not a discrete habitat for the purposes of Phase 1 Habitat survey, but instead is a matrix derived from a variety of different habitat types and associated habitat and land-use features and characteristics, and edaphic conditions. The flora and habitat conditions recorded during the Phase 1 habitat survey supports this assessment. It encompasses the following Phase 1 habitats and features: ephemeral/ short perennial, bare ground, temporary standing water, scattered scrub, tall herbs and localised swamp vegetation. This habitat is approx. 2.62 ha in size so meets the minimum criteria of 0.25 ha detailed in the NERC Act S41 priority criteria for priority habitat open mosaic habitat (Maddock, 2011). Additionally, there is a diversity of different successional communities and a varied topography of spoil mounds, bunds (with localised steep slopes and shallow cliff faces) that would provide ecological niches for terrestrial invertebrates.



- 5.3.2 This habitat is known as “brownfield” in the LBAP and LWS guidelines. An approach for the assessment of OMH in Lincolnshire is given in Greater Lincolnshire Nature Partnership (GLNP) (2013). Criterion BM1 requires a ‘brownfield mosaic at least 0.25 ha in extent with loose substrate or bare ground and at least two of the early successional communities in Table 15 and a minimum brownfield features index score of four using Table 16. At least one early successional community should be flower-rich.’
- 5.3.3 An approach for the assessment of the value of the semi-improved neutral grassland is given in GLNP (2013). Criterion NG1 requires a ‘neutral grassland of at least 0.1 ha in extent, or linear areas at least 50 m long, with a minimum species index score of eight using Table 7’. The requirement that the grassland is at least 0.1ha in extent has been met (the semi-improved neutral grassland is 0.68 ha). The assessment of the grassland in terms of GLNP (2013) Local Wildlife Site selection criterion was informed by the results of a separate more detailed botanical survey which was undertaken on 15<sup>th</sup> June 2018 and reported in Appendix 9H (ES Volume III).

#### **5.4 Protected and Notable Species**

- 5.4.1 Table 9A.7 provides a summary of potentially relevant species identified through a combination of desk study and review of the habitat data collected during the field surveys in spring and summer 2018. These surveys were limited to the Power Station Area, because the habitats within the VPI CHP Area were not considered suitable to support any protected or notable species. Cross references to the various ES technical appendices where the detailed survey methods and results are presented are included as necessary. The paragraphs below present a short summary review of these data.
- 5.4.2 No invasive non-native species listed under Schedule 9 of the WCA were recorded during the Phase 1 Habitat survey.

##### **Great Crested Newt**

- 5.4.3 The desk study returned 21 records of great crested newt from within 1 km of the Site in the past 10 years. The closest record to the Site is approximately 160 m to the west of the OCGT Power Station Site. There are also records from Station Road Field LWS, which is located 0.3 km to the north of the Site at its closest point.
- 5.4.4 There are four ponds within the Site (Ponds 1, 2, 4 and 5) and a further two within 250 m (Ponds 3 and 6). With the exception of Pond 3, these ponds were subject to eDNA survey for great crested newt in spring 2018, which returned negative results for great crested newt for all of the waterbodies (see Table 9A.7).
- 5.4.5 Pond 3 is man-made concrete lined lagoon with limited marginal and aquatic vegetation. The lagoon is steep sided with fluctuating water depth. Due to health and safety concerns it was not possible to undertake presence/absence surveys for great crested newts within this pond. Terrestrial habitat surveys are currently being undertaken around the perimeter of Pond 3 (for further details please refer to Appendix 9C ES Volume III).
- 5.4.6 The settlement lagoons to the south-east of the Proposed Development (within TLOR) were also scoped out of GCN surveys on the basis of habitat unsuitability. These lagoons

treat process water from within TLOR prior to outfall to the unnamed drain to the south of the Proposed Development.

- 5.4.7 It is concluded that great crested newt are absent from Ponds 1, 2, 4, 5, 6.
- 5.4.8 None of the ponds within the Site or within 250 m that were subject to eDNA survey in 2018 returned positive results for great crested newt. If great crested newt was present in Pond 3, given the good habitat connectivity between this pond and Ponds, 1, 2, 4, 5 and 6, it would be reasonable to expect that great crested newt would be also present in those waterbodies.
- 5.4.9 To date no great crested newts have been recorded during the terrestrial surveys.
- 5.4.10 It is therefore thought unlikely that great crested newt are present within the Site, this will be confirmed through the conduct of the amphibian refugia surveys.

**Table 9A.7: Summary of Great Crested Newt Surveys**

Pond Reference	Pond Type	Grid Reference	Approx Distance from the Proposed Development	eDNA Positive for Great Crested Newt?
1	Medium-sized irregularly shaped natural pond	TA 16780 17471	Within OCGT Power Station Site	Negative
2	Medium-sized irregularly shaped natural pond	TA 16774 17499	Within OCGT Power Station Site	Negative
3	Man-made concrete lined lagoon	TA 16462 17303	160 m west of OCGT Power Station Site	Not surveyed.
4	Medium-sized irregularly shaped natural pond	TA 16669 17451	Within OCGT Power Station Site	Negative
5	Flooded archaeological trial trench	TA 16649 17405	Within OCGT Power Station Site	Negative
6	Flooded archaeological trial trench	TA 16572 17340	45 m west of OCGT Power Station Site	Negative

### Bats

- 5.4.11 The desk study returned ten records of noctule bat (*Nyctalus noctula*), one record of brown long-eared bat (*Plecotus auritus*), one record of an unidentified species of *Myotis* bat, 23 records of common pipistrelle (*Pipistrellus pipistrellus*), and two records of soprano pipistrelle (*Pipistrellus pygmaeus*) within 1 km of the Site in the past 10 years, the closest of which is approximately 350 m from the Site.
- 5.4.12 There are no mature trees or buildings within the Site that could offer suitable roosting habitat for bats. Habitats within the Site are considered to represent sub-optimal habitat for foraging bats, due to their close proximity to TLOR and the Existing VPI CHP Plant, both of which are lit at night. The high levels of nocturnal light emissions from these plants would be expected to deter foraging bats. Bat usage of the Site would be reasonably

expected to be low numbers of common species such as pipistrelle bats (*Pipistrellus* sp.) that would not be significantly affected by the Proposed Development. Foraging bats are therefore not a relevant ecological feature for the purposes of EclA. On this basis, it is considered that no surveys for bats are necessary to inform the EclA.

### **Reptiles**

- 5.4.13 The mosaic of brownfield habitat within the Power Station Area, including areas of bare ground, scrub, rough grassland and the varied topography provided by the spoil mounds, was considered to represent optimal habitat for reptiles; primarily common lizard (*Zootoca vivipara*) and grass snake (*Natrix helvetica*). However, surveys for the species in this habitat in spring and early summer 2018 did not record any reptiles (see Appendix 9G ES Volume III).
- 5.4.14 The mostly bare ground or recently re-colonising habitats within the VPI CHP Area are not suitable for reptiles because they do not provide the mosaic of habitats that reptiles require for basking, foraging and refuge. No surveys of this area were therefore considered necessary to support the EclA.
- 5.4.15 It is considered that reptiles are absent from the Site, and they are not considered further.

### **Water Vole**

- 5.4.16 The desk study returned numerous records of water vole from the 1 km desk study area in the past 10 years, and it appears that this species is relatively widespread and common in the wider local area. The ditch to the south of the OCGT Power Station Site may be suitable to support water voles, although given it is heavily shaded by the overhanging hedgerow that is present at the top of both banks of the ditch, there are no aquatic or marginal plants to provide a source of food. This ditch is therefore considered to be sub-optimal for water vole.
- 5.4.17 Due to health and safety concerns it was not possible to undertake a detailed survey for the presence or absence of water voles in the ditch.
- 5.4.18 Given that the Proposed Development will result in only minor impacts on the ditch (associated with the construction of a drainage outfall), the large and very steeply sloping banks of the ditch, and its heavily overgrown nature, mean that the ditch supports no marginal or aquatic vegetation as a source of food or cover for water vole. Any impacts on the ditch would be minor in extent (to construct a new drainage outfall), and would not be reasonably expected to result in significant effects on water voles, should they be present in the ditch.
- 5.4.19 Necessary precautions will be undertaken to address the low residual risk of this species being present during any construction works, to ensure compliance with the WCA.

### **Otter**

- 5.4.20 The desk study data returned records of this species from the Humber Estuary, and individual otters may forage on occasion on watercourses linked to the Estuary in the wider catchment. However, the ditch to the south of the Power Station Area is of low

suitability for otter (*Lutra lutra*) because it is shallow and unlikely to support large amounts of fish prey. The ditch is also culverted for an extensive distance beneath the TLOR and Rosper Road, and is therefore not well connected to the wider ditch network. The presence of otter on occasion when foraging cannot be entirely ruled out, although it is considered unlikely based on the general unsuitability of the ditch habitat and its relatively isolated nature.

- 5.4.21 Although the presence of otter occasionally on passage cannot be entirely ruled out, it is reasonable to conclude that the Proposed Development would not result in significant disturbance effects to otter – if present the species will already be habituated to noise and lighting disturbance arising from the adjacent Existing VPI CHP Plant. It is therefore evaluated that otter is not a relevant ecological feature for the purposes of EclA.

██████████

- 5.4.22 No signs of ██████████, foraging activity or latrines was found within the Site and it is concluded that this species is absent. This species therefore does not require any further consideration in the EclA.

### **Breeding Birds**

- 5.4.23 A breeding bird survey was undertaken of the Power Station Area in spring and early summer 2018. The survey recorded a limited suite of common breeding species (see Appendix 9E ES Volume III). Habitats within the VPI CHP Area have limited potential to support nesting birds, because the habitats are dominated by bare ground and colonising ephemeral/ short perennial habitats that are subject to regular disturbance by vehicles using access tracks around the perimeter of the Existing VPI CHP Plant Site.
- 5.4.24 The breeding bird assemblage recorded is evaluated to be of importance at the site level only, and therefore it is concluded that it is not a relevant ecological feature in EclA terms. Detailed assessment of the impacts of the Proposed Development on breeding birds is therefore not considered necessary, although appropriate mitigation should be employed during construction to ensure compliance with the WCA. Provision of alternative nesting habitat (or nest boxes) should also be considered to demonstrate no net loss of biodiversity.

### **Wintering Birds**

- 5.4.25 Based on the habitat and topographical context of the Power Station Area, it is considered unlikely that the site would have a specific value for passage and wintering birds associated with the Humber Estuary SPA/ Ramsar. The area is subject to high levels of human disturbance associated with the TLOR car park to the north of the OCGT Power Station Site. Waterfowl (such as curlew (*Numenius arquata*) and golden plover (*Pluvialis apricaria*) and geese) generally prefer flat open vistas and short vegetation, where their sight-lines are unrestricted in terms of predator detection. Therefore the undulating topography and stands of tall ruderal vegetation at the Power Station Area are likely to deter waterfowl from using the site for foraging and roosting. This was confirmed by the wintering bird surveys carried out on the Power Station Area in 2017 (Catley, 2017). The only waterfowl species that were recorded were snipe (*Gallinago gallinago*) and woodcock

(*Scolopax rusticola*), which do not form part of the Humber Estuary SPA/ Ramsar assemblage.

- 5.4.26 Due to high levels of disturbance associated with the Existing VPI CHP Plant, it is also considered unlikely that the VPI CHP Area would have a specific value for passage and wintering birds associated with the Humber Estuary SPA/ Ramsar. Further surveys for wintering birds are therefore not necessary in this area and this ecological feature can be scoped out of the EclA.

#### **Terrestrial Invertebrates**

- 5.4.27 The desk study returned several records of moths, butterflies and beetles since 2008, including cinnabar moth (*Tyria jacobaeae*), blood-vein moth (*Timandra comae*) and small heath butterfly (*Coenonympha pamphilus*). The habitat context of the Site (OMH) provides opportunities for a range of terrestrial invertebrates, possibly nationally or regionally notable species.

#### **Aquatic Invertebrates**

- 5.4.28 The regular drying of the seasonal wetlands within the Site results in the habitats being unsuitable to support a diverse assemblage of aquatic invertebrates that could be considered a relevant ecological feature for the purposes of EclA. No surveys were therefore considered necessary, because there is no potential for significant effects on this group of species.

### Summary of Protected and Notable Species

**Table 9A.8: Protected and notable species relevant or potentially relevant to the Proposed Development**

Species	Legally Protected Species?	Species of Principal Importance?	Other Notable Species?	Present on Site or in potential ZOI?	Supporting Comments
<b>European Protected Species</b>					
Great crested newt ( <i>Triturus cristatus</i> )	✓	✓	–	–	See Appendix 9C (ES Volume III). Desk study returned 21 records of great crested newt from within 1 km of the Proposed Development in the past 10 years, the closest of which is approximately 160 m to the west of the Power Station Area. There are also records from Station Road Field LWS (which is located 0.3 km to the north of the Proposed Development at its closest point). eDNA surveys of Ponds 1, 2, 4, 5 and 6 did not record the presence of this species. It was not possible to undertake presence/absence surveys for great crested newts within Pond 3, therefore additional surveys are currently being undertaken to confirm absence of this species.
Bats	✓	✓	–	?	Small number of desk study records within 1 km. No roosting habitat within the Proposed Development boundary and foraging habitat is sub-optimal due to proximity to industrial areas of TLOR <b>Not considered further.</b>
Otter ( <i>Lutra lutra</i> )	–	–	–	?	Known to be present in Humber Estuary. Habitat is generally of low suitability for otter due to poor connectivity to wider ditch network, and shallow/ shaded nature. Presence of otter on occasional basis cannot be entirely ruled out, but unlikely to be adversely affected by Proposed Development. <b>Not considered further.</b>
<b>Other Species</b>					



Species	Legally Protected Species?	Species of Principal Importance?	Other Notable Species?	Present on Site or in potential ZOI?	Supporting Comments
Reptiles	✓	✓	–	–	See Appendix 9G (ES Volume III). No desk study records within the past 10 years. Surveys of the Proposed Development did not record reptiles. <b>Not considered further.</b>
Water vole ( <i>Arvicola amphibius</i> )	✓	✓	–	?	A total of 38 desk study records within 1 km of the Proposed Development. The drain to the south of the Proposed Development may be suitable to support water vole, but is considered sub-optimal due to its isolated nature and lack of food plants due to shading.
Brown hare ( <i>Lepus europaeus</i> )	–	✓	–	–	There are two records of brown hare being present at Rosper Road Pools in 2007-2008, which is approximately 0.3 km from the Proposed Development. The closest record is approximately 0.5 km away. Site is isolated within industrial environment. No brown hares were incidentally observed on the Site during the course of other surveys undertaken across spring and summer 2018, and it is concluded that this species is likely absent. <b>Not considered further.</b>
Hedgehog ( <i>Erinaceus europaeus</i> )	x	✓	x	?	There are no recent desk study records for this species. A possible hedgehog dropping was found within the OCGT Power Station Site during the walkover survey in early 2017 (SLR Consulting, 2017), and this species may therefore be present on Site.
█	✓	–	–	–	There are eighteen records of █ within 1 km of the Proposed Development since 2008 (the closest record is approximately 121 m away). The Proposed Development area offers sub-optimal habitat for foraging █. No █ activity (including setts and digging by █) was recorded during surveys of this site in spring and summer 2018. <b>Not considered further.</b>
Barn owl ( <i>Tyto alba</i> )	✓	–	✓	–	There are nine records of barn owl flights within 1 km of the Red-line Boundary since 2008, the majority at Rosper Road Pools (approx. 300 m to the south-east). The site supports grassland habitat with potential to be used on occasion as foraging habitat by barn owl; however this species was not recorded during early morning breeding bird surveys. In



Species	Legally Protected Species?	Species of Principal Importance?	Other Notable Species?	Present on Site or in potential ZOI?	Supporting Comments
					<p>general the habitat is relatively isolated within the surrounding industrial areas of Immingham, and there is higher quality foraging habitat for barn owls to the east in the fields adjacent to the Estuary.</p> <p>There are no features on or immediately adjacent to the Site that are suitable for nesting.</p> <p><b>Not considered further.</b></p>
Breeding birds	✓	✓	–	✓	<p>See Appendix 9E (ES Volume III).</p> <p>Desk study returned numerous bird records since 2007, including Schedule 1 species. However, habitats within the site do not represent favourable breeding habitat for Schedule 1 species.</p> <p>Habitats within the OCGT Power Station Site are suitable for ground nesting birds, for example skylark (<i>Alauda arvensis</i>); however no ground nesting birds were recorded in this area during the breeding bird surveys. A limited suite of breeding birds was recorded during the surveys in the OCGT Power Station Site.</p>
Passage and wintering birds	✓	✓	–	–	<p>See Appendix 9D (ES Volume III)</p> <p>Based on the habitat and topographical context of the OCGT Power Station Site, it is highly unlikely that the site would have a specific value for passage and wintering birds associated with the Humber Estuary SPA. This was confirmed by the wintering bird surveys carried out on the OCGT Power Station Site in 2017 (Catley, 2017). The only waterfowl species that were recorded were snipe (<i>Gallinago gallinago</i>) and woodcock (<i>Scolopax rusticola</i>), which do not form part of the SPA/Ramsar assemblage.</p> <p>Due to high levels of disturbance associated with the operational Existing VPI CHP Plant Site, it is considered unlikely that this part of the Proposed Development area would have a specific value for passage and wintering birds associated with the Humber Estuary SPA.</p> <p><b>Not considered further.</b></p>
Common toad ( <i>Bufo bufo</i> )	–	✓	–	?	<p>Desk study provided seven records of common toad within 1 km of the Site since 2008. This species may utilise ponds within the OCGT Power Station Site for breeding and the site affords opportunities for foraging and hibernation.</p>
Terrestrial Invertebrates	–	✓	✓	?	<p>See Appendix 9F (ES Volume III).</p> <p>Desk study returned several records of moths, butterflies and beetles since 2008, including cinnabar moth (<i>Tyria</i></p>

Species	Legally Protected Species?	Species of Principal Importance?	Other Notable Species?	Present on Site or in potential ZOI?	Supporting Comments
					<i>jacobaeae</i> ), blood-vein moth ( <i>Timandra comae</i> ) and small heath butterfly ( <i>Coenonympha pamphilus</i> ). The habitat context of the Site (Open Mosaic Habitat) provides opportunities for a range of terrestrial invertebrates, possibly nationally or regionally notable species.
Aquatic Invertebrates	–	✓	✓	?	No suitable habitat for important or notable assemblage of aquatic invertebrates. <b>Not considered further.</b>

Key to symbols: ✓ = yes, x = no, ? = likely or possible, see Supporting Comments for further rationale.

Species present on site are those for which recent direct observation or field signs confirmed presence. Species which are possibly present are those for which there is potentially suitable habitat based on the results of the Phase 1 Habitat survey, or this combined with desk study records.

Legally protected species are those listed under Schedules 1, 5 and 8 of the WCA; and, Schedules 2 and 4 of The Habitat Regulations.

Species of Principal Importance as those listed under Section 41 of the NERC Act. Planning Authorities have a legal duty under Section 40 of the same Act to consider such species when determining planning applications.

Other notable species include native species of conservation concern listed in the LBAP (except species that are also of Principal Importance), those that are Nationally Rare, Scarce or Red Data List.

No non-native controlled weed species listed under Schedule 9 of the WCA (as amended) were recorded during the Phase 1 survey.

## 6.0 ECOLOGICAL CONSTRAINTS

### 6.1 Approach to the Identification of Ecological Constraints

- 6.1.1 Relevant ecological features that may represent constraints to the Proposed Development, or that provide opportunities to deliver ecological enhancement in accordance with planning policy, are identified in this report.
- 6.1.2 The NPPF and local planning policy (summarised in Section 3 of this report) specify requirements for the protection of features of importance for biodiversity. Planning policy is a material consideration when determining planning applications.
- 6.1.3 Compliance with planning policy requires that the proposed development considers and engages the following mitigation hierarchy where there is potential for impacts on relevant ecological features:
1. Avoid features where possible;
  2. Minimise impact by design, method of working or other measures (mitigation) e.g. by enhancing existing features; and
  3. Compensate for significant residual impacts, e.g. by providing suitable habitats elsewhere (whether in the control of the Applicant or otherwise legally enforceable through planning condition or Section 106 agreement).
- 6.1.4 This hierarchy requires the highest level to be applied where possible. Only where this cannot reasonably be adopted should lower levels be considered. The rationale for the proposed mitigation and/ or compensation should be provided with planning applications, including sufficient detail to show that these measures are feasible and can be provided.
- 6.1.5 In pursuance of the objective within the NPPF of providing net gains in biodiversity where possible, consideration should be given to the scope for enhancement as part of the Proposed Development. This should represent biodiversity gain over and above that achieved through mitigation and compensation. Enhancement could be achieved on and/ or off-site.
- 6.1.6 There may be scope for ecological enhancement where existing habitat features could be improved or enhanced as part of the Proposed Development as designed, or with only minor amendment to the design of the Proposed Development. Ecological enhancement may not be possible where there is little scope to accommodate enhancement measures within the Proposed Development, e.g. due to a lack of utilisable space, or where land is required for essential mitigation. In such circumstances, consideration could be given to enhancing biodiversity in the vicinity of the Proposed Development, subject to there being appropriate mechanisms to secure this.

## **6.2 Constraints and Requirements for Further Survey: Designations**

### **Statutory Designations**

- 6.2.1 The Site is located approximately 1.4 km south-west of the Humber Estuary EMS. It is considered unlikely that the construction and operation of the Proposed Development would directly impact these designations at the distance concerned; however, there is the potential for indirect impacts e.g. from air emissions from the operational development.
- 6.2.2 The habitats present within the Site are unlikely to be of functional importance for bird species associated with the European site for the following reasons:
- The Power Station Area is subject to high levels of human disturbance associated with the car park which is located immediately adjacent;
  - The VPI CHP Area is subject to high levels of human disturbance associated with ongoing operation of the Existing VPI CHP Plant and vehicle movements around the plant;
  - Waterfowl and waders such as curlew and golden plover and geese generally prefer flat open vistas and short vegetation (where their sight-lines are unrestricted in terms of predator detection). Therefore the undulating topography and stands of tall ruderal vegetation within the Power Station Area are likely to deter waterfowl from using the site for foraging and roosting; and
  - The results of the wintering bird survey carried out within the Power Station Area by Catley (2017) recorded no SPA/ Ramsar bird species.
- 6.2.3 Indirect effects are also unlikely, but have been assessed in detail as part of the EIA process and reported in the ES.
- 6.2.4 Given the above, further wintering and passage bird surveys on the Site are not recommended or necessary to support the EclA.

### **Non-Statutory Designations**

- 6.2.5 There are three non-statutory nature conservation designations within a 1 km radius of the Proposed Development Area. It is considered unlikely that the construction and operation of the Proposed Development would directly impact these designations at the distance concerned. However, there is the potential for indirect impacts in respect of noise, hydrogeology, water quality and air quality. These have to be considered as part of the EclA.

### **6.3 Constraints and Requirements for Further Survey: Habitats and Protected Species**

6.3.1 All necessary protected species surveys to establish a robust baseline for EclA have been completed on the Site. Where surveys have not been undertaken, the scoping out of such surveys is supported by a clear rationale (see Section 5). The methods and results of each of the surveys undertaken are presented in the following technical appendices in the ES (Volume III):

- Appendix 9C – Great Crested Newt
- Appendix 9D – Wintering Birds
- Appendix 9E – Breeding Birds
- Appendix 9F – Terrestrial Invertebrates
- Appendix 9G – Reptiles
- Appendix 9H – Botanical Survey

6.3.2 Mitigation is likely to be required to address the loss of OMH and semi-improved neutral grassland habitat, which have been identified as being of county nature conservation value for terrestrial invertebrates (see Appendix 9F (ES Volume III)).

## 7.0 REFERENCES

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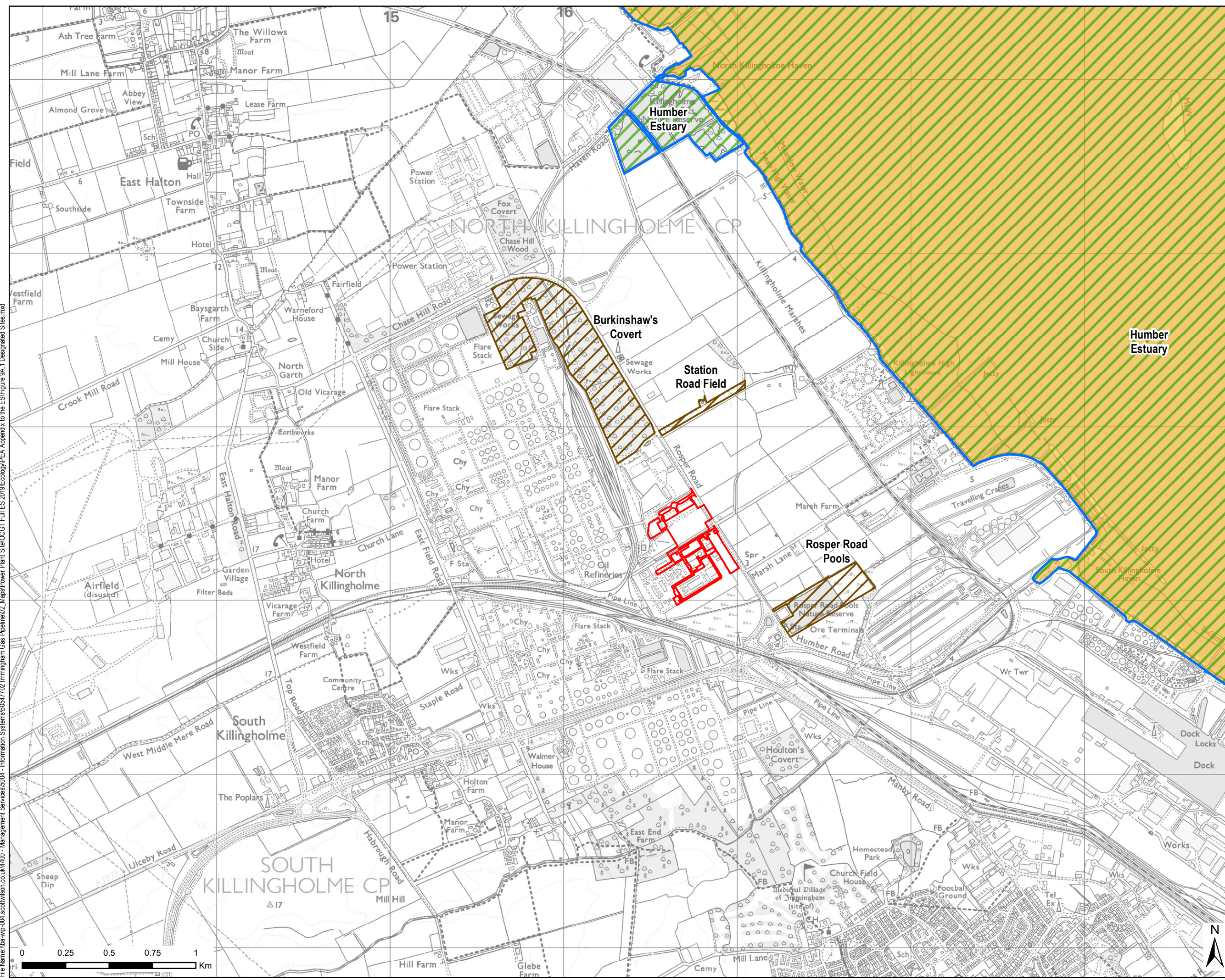
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## Annex 9A.1: Figures



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- Legend**
- Proposed Development
  - Local Wildlife Site
  - Special Area of Conservation - Humber Estuary
  - Special Protection Area - Humber Estuary
  - Site of Special Scientific Interest - Humber Estuary



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Purpose of Issue  
**ENVIRONMENTAL STATEMENT**

Client  
**VPI IMMINGHAM B LTD**

Project Title  
**PROPOSED 299MW OCGT POWER STATION**

Drawing Title  
**DESIGNATED SITES  
 FIGURE 9A.1**

Drawn EC	Checked JW	Approved HW	Date 21/03/2019
AECOM Internal Project No. 60547702		Scale @ A3 1:20,000	

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AECOM  
 2 City Walk  
 Leeds  
 LS11 9AR  
 T +44-133-391-6800  
 http://www.aecom.com/

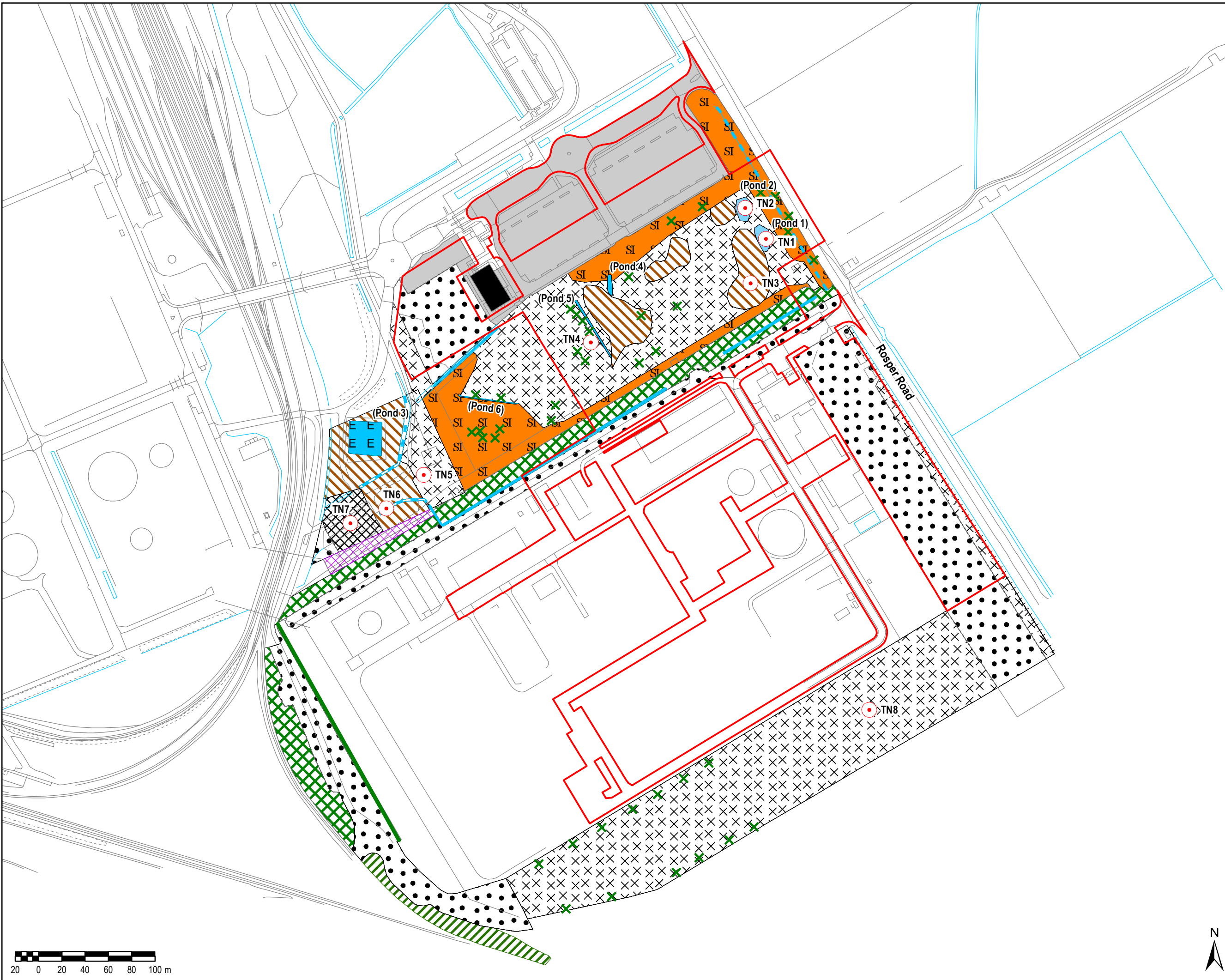
DCO Document Ref  
**6.4.10**

Rev  
**01**

File Name: lba-wip-004 - Management Services\6004 - Information Systems\60547702 - Immingham Gas Pipeline\02 - Maps\Power Plant Site\OCGT Full ES 2019\Ecology\PEA - Appendix to the ES\Figure 9A.1 Designated Sites.mxd



File Name: \\ba-wip-004.scottwilson.co.uk\4400 - Management Services\6004 - Information Systems\6047702 - Immingham Gas Pipeline\02 - Maps\Power Plant Site\CCGT Full ES 2019\Ecology\PEA - Appendix to the ES\Figure 9A.2 Phase 1 Habitat Map.mxd



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**LEGEND**

- Proposed Development
- Phase 1 Description**
- × Scattered scrub
- Target note
- Intact hedge - species poor
- Fence
- Dry ditch
- Wet ditch
- Broadleaved woodland plantation
- Bare ground
- Buildings
- Built-up area
- Cultivated/disturbed land - ephemeral/short perennial
- Hardstanding
- Neutral grassland - semi-improved
- No access
- Other tall herb and fern - ruderal
- + Scrub - dense/continuous
- Standing water
- Standing water - eutrophic
- Swamp

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Purpose of Issue  
**ENVIRONMENTAL STATEMENT**

Client  
**VPI IMMINGHAM B LTD**

Project Title  
**PROPOSED 299MW OCGT POWER STATION**

Drawing Title  
**PHASE 1 HABITAT SURVEY  
 FIGURE 9A.2**

Drawn JW	Checked BB	Approved MS	Date 21/03/2019
AECOM Internal Project No. 60547702		Scale @ A3 1:3,000	

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AECOM  
 Midpoint  
 Alençon Link, Basingstoke  
 Hampshire, RG21 7PP  
 Telephone (01256) 310200  
 Fax (01256) 310201  
 www.aecom.com



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## Annex 9A.2: Wildlife Legislation

### **The Conservation of Habitats & Species Regulations 2017 (as amended)**

The Habitats Regulations 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. The Regulations came into force on 30th October 1994. In Scotland the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (in relation to reserved matters) and the 1994 Regulations. The Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) transpose the Habitats Directive in relation to Northern Ireland.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

Under the Regulations, competent authorities i.e. any Minister, Government department, public body, or person holding public office, have a general duty, in the exercise of any of their functions, to have regard to the EC Habitats Directive.

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I and II of the Habitats Directive respectively) to the European Commission. Once the Commission and EU Member States have agreed that the sites submitted are worthy of designation, they are identified as Sites of Community Importance (SCIs). The EU Member States must then designate these sites as Special Areas of Conservation (SACs) within six years. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs) classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites form a network termed Natura 2000.

The Regulations enable the country agencies to enter into management agreements on land within or adjacent to a European site, in order to secure its conservation. If the agency is unable to conclude such an agreement, or if an agreement is breached, it may acquire the interest in the land compulsorily. The agency may also use its powers to make byelaws to protect European sites. The Regulations also provide for the control of potentially damaging operations, whereby consent from the country agency may only be granted once it has been shown through Appropriate Assessment that the proposed operation will not adversely affect the integrity of the site. When considering potentially damaging operations, the country agencies apply the precautionary principle' i.e. consent cannot be given unless it is ascertained that there will be no adverse effect on the integrity of the site.

In instances where damage could occur, the appropriate Minister may, if necessary, make special nature conservation orders, prohibiting any person from carrying out the operation. However, an operation may proceed where it is or forms part of a plan or project with no alternative solutions, which must be carried out for reasons of overriding public interest. In such instances the Secretary of State must secure compensation to ensure the overall integrity of the Natura 2000 system. The country agencies are required to review consents previously granted under the Wildlife and Countryside Act 1981 for land within a European site, and may modify or withdraw those that are incompatible with the conservation objectives of the site.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Regulations make special provisions for the protection of European marine sites, requiring the country agencies to advise other authorities of the conservation objectives for a site, and also of the operations which may affect its integrity.

The Regulations also enable the establishment of management schemes and byelaws by the relevant authorities and country agencies respectively, for the management and protection of European marine sites.

#### **Wildlife and Countryside Act 1981 (as amended)**

The Wildlife and Countryside Act 1981 is the major domestic legal instrument for wildlife protection in the UK, and is the primary means by which the following are implemented:

- The Convention on the Conservation of European Wildlife and Natural Habitats ('the Bern Convention'); and
- The Council Directive 79/409/EEC on the Conservation of Wild birds (the 'Bird Directive')

#### Wild Birds

The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006), or
- take or destroy an egg of any wild bird.

Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds. The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.

#### Other Animals

The Act makes it an offence (subject to exceptions) to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

#### Flora, Fungi and Lichens

The Act makes it an offence (subject to exceptions) to intentionally pick, uproot or destroy:

- any wild plant listed in Schedule 8, or
- unless an authorised person, to intentionally uproot any wild plant not included in Schedule 8,
- to sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

#### Non-native Species

The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales. It also provides a mechanism making any of the above offences legal through the granting of licences by the appropriate authorities.

#### **Countryside and Rights of Way (CRoW) Act 2000**

The Countryside and Rights of Way Act 2000 applies to England and Wales only. Part III of the Act deals specifically with wildlife protection and nature conservation.

The Act places a duty on Government Departments and the National Assembly for Wales to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

Schedule 9 of the Act amends the SSSI provisions of the Wildlife and Countryside Act 1981, including increased powers for their protection and management of SSSIs. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs; increase penalties on conviction where the provisions are breached; and include an offence whereby third parties can be convicted for damaging SSSIs.

Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable', include an offence of reckless disturbance, confer greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and enable heavier penalties on conviction of wildlife offences.

### **Natural Environment and Rural Communities (NERC) Act 2006**

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act required the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list was drawn up in consultation with Natural England, as required by the Act.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the (now withdrawn) UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the (now withdrawn) UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the hen harrier has also been included on the list because without continued conservation action it is unlikely that the hen harrier population will increase from its current very low levels in England.

### **Protection of [REDACTED] Act 1992**

[REDACTED] are protected under the Act. This makes it an offence to kill or take a [REDACTED], to cruelly ill-treat a [REDACTED], or to interfere with a [REDACTED], including disturbing a [REDACTED].

Licences to permit otherwise prohibited actions can be granted under section 10 of the Act for various purposes. This includes licences to interfere with a [REDACTED] for the purpose of development as defined by section 55(1) of the Town and Country Planning Act 1990.

Licences may be granted in order to close down setts, or parts of setts, prior to development or to permit activities close to a [REDACTED] that might result in disturbance. A licence will be required if a sett is likely to be damaged or destroyed in the course of development or if the [REDACTED] occupying the sett will be disturbed.

Licences can be applied for at any time, but a licence for development will not normally be issued unless full planning permission has been granted. The closure of setts under licence is normally only permitted during July to November, inclusive.

### **Water Framework Directive 2000**



The Water Framework Directive (EC Directive 2000/60/EC) came into force in 2000. At the heart of the WFD is the philosophy to “make waterbodies better” through sustainable development for the joint benefits of aquatic habitats and the human environment.

The WFD requires member states achieve “good status” for all groundwater and surface waters (rivers, lakes, transitional waters, and coastal waters). For surface water, overall status comprises two elements: “good ecological status” and “good chemical status”. Ecological status is defined by the biological condition or health of a watercourse, in combination with water quality and physical conditions that underpin biological conditions. The classification of ecological status considers biological elements (the abundance of aquatic flora and fauna), physical habitat availability (hydromorphology), and water quality factors such as the availability of nutrients, salinity, temperature and pollution by key chemical pollutants. The biological elements used as indicators of ecological quality include fish, macroinvertebrates, macrophytes and diatoms.

Any proposed developments or activities that have the potential to affect the water environment require a WFD Assessment (WFDa). Compliance with the WFD means attainment of good ecological status, prevention of deterioration in status, and prevention of failure to achieve future attainment of good status where it is not already achieved within waterbodies. However, WFD Article 4.7 provides legislation for exemption conditions that could allow implementation of schemes that cause deterioration in ecological status, for example for reasons of overriding public interest.

## Annex 9A.3: Target Notes

Target Note	Description
1	A shallow pond with a high emergent cover of spike rush ( <i>Eleocharis</i> sp.) with frequent bulrush ( <i>Typha latifolia</i> ) and rare grey club-rush ( <i>Schoenoplectus tabernaemontani</i> ).
2	Abundant bulrush indicating a wet ponded area.
3	The raised areas of the bunds and spoil heaps are represented by a stand of hemlock ( <i>Conium maculatum</i> ), creeping thistle and great willowherb ( <i>Epilobium hirsutum</i> )
4	Abundant creeping cinquefoil ( <i>Potentilla reptans</i> ) and colt's-foot ( <i>Tussilago farfara</i> ) with frequent bristly ox-tongue ( <i>Picris echioides</i> ), fleabane, willowherbs ( <i>Epilobium</i> spp.) and ribwort plantain ( <i>Plantago lanceolata</i> ). There is occasional scentless mayweed ( <i>Tripleurospermum inodorum</i> ), yellow-wort ( <i>Blackstonia perfoliata</i> ), common century ( <i>Centaureum erythraea</i> ), and common ragwort ( <i>Senecio jacobaea</i> ), and knapweed ( <i>Centaurea nigra</i> agg.) and blue fleabane ( <i>Erigeron acris</i> ).
5	This is a transitional habitat located immediately adjacent to the OCGT Power Station Site (within the Proposed Pipeline Corridor) resulting from colonisation of bare ground by ruderal plant species and grasses [for example <i>Holcus lanatus</i> ]. Forb species include locally frequent bird-foot trefoil ( <i>Lotus corniculatus</i> ) and occasional yellow-wort, common centaury, scarlet pimpernel ( <i>Anagallis arvensis</i> ) and rare blue fleabane. There are localised areas dominated by creeping thistle.
6	The area is dissected by two short sections of drain with dominant emergent bulrush.
7	Inaccessible settling lagoons with stagnant water with no emerging macrophyte vegetation and appeared to be of negligible importance for wildlife
8	Area of cultivated/disturbed land to the south of the Site.



## Annex 9A.4: Site Photographs



Photo 1 (Power Station Area): Linear stand of unmanaged semi-improved neutral grassland in the background, adjacent to the car park.



Photo 2 (Power Station Area): Abundant sea club-rush (*Bolboschoenus maritimus*) with some bulrush (*Typha latifolia*) indicating waterlogged ground conditions.



Photo 3: (Power Station Area): Bulrush growing in shallow pond.



Photo 4 (Power Station Area): Shallow pond with abundant spike rush (*Eleocharis* sp.).



Photo 5 (Power Station Area): Ephemeral/ short perennial vegetation with the linear stand of semi-improved neutral grassland in the background adjacent to the car park.



Photo 6: (Power Station Area): Localised patches of abundant tufted hair grass (*Deschampsia cespitosa*) amongst ephemeral/ short perennial vegetation. Indicates impeded drainage.

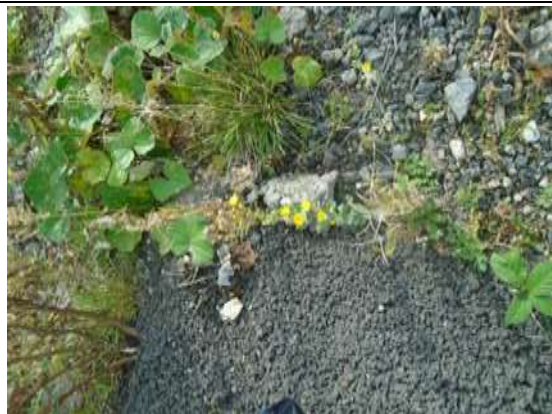


Photo 7 (Power Station Area): Yellow-wort (*Blackstonia perfoliata*) and colt's-foot (*Tussilago farfara*) growing amongst various types of bare industrial substrates.



Photo 8 (Power Station Area): Ephemeral/ short perennial vegetation growing on undulating spoil mounds.





Photo 9 (Power Station Area): Ephemeral/ short perennial vegetation growing on varied topography.



Photo 10 (Power Station Area): Shallow cliff faces and steep slopes can provide high quality habitats for invertebrates when found in Open Mosaic Habitat.



Photo 11 (Power Station Area): Flat area of Ephemeral/ short perennial vegetation surrounded by scattered scrub and steep slopes.



Photo 12 (Power Station Area): Blue Fleabane (*Erigeron acris*).



Photo 13 (Power Station Area): Ephemeral/ short perennial vegetation.



Photo 14 (Power Station Area): Tall ruderal vegetation with the dead stems of hemlock (*Conium maculatum*).



Photo 15 (land adjacent to the western boundary of the OCGT Power Station Site): Settling Lagoons with negligible wildlife potential.



Photo 16 (land adjacent to the western boundary of the OCGT Power Station Site): Ephemeral/ short perennial vegetation, with bird's-foot trefoil (*Lotus corniculatus*) in the foreground.





Photo 17 (VPI CHP Area): Bare ground/hard standing habitat adjacent to Rosper Road and to the north-east of the Existing VPI CHP Plant Site.

Photo 18 (VPI CHP Area): A homogenous stand of early successional ephemeral/short perennial vegetation to the south-east of the Existing VPI CHP Plant Site, with patches of bare ground/hard standing formed on a flat area of artificial habitat.



Photo 19 (VPI CHP Area): Ephemeral vegetation - there are localised areas of hard standing with grasses and acrocarpous mosses.



Photo 20 (VPI CHP Area): Ephemeral vegetation and bare ground. Forb species include lesser trefoil (*Trifolium dubium*), buck's-horn plantain (*Plantago coronopus*) and white clover (*Trifolium repens*).