

Appendix 10C: Preliminary Ecological Appraisal



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Quality information

Prepared by	Checked by	Approved by
Steven Ward MCIEEM Senior Ecologist	Lyndsey Spawforth MCIEEM Principal Ecologist	Stephanie Peay CEcol MCIEEM Associate Director (Ecology)
Jo Atkinson MCIEEM Principal Ecologist	David Broughton CEnv MCIEEM Principal Ecologist	

Prepared for:

Eggborough Power Limited

Prepared by:

Steven Ward MCIEEM Senior Ecologist

Jo Atkinson MCIEEM Principal Ecologist

AECOM 2 City Walk Leeds LS11 9AR

T: +44 (1133) 916 800 aecom.com

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Table of Contents

1.	Introduction	1
2.	Wildlife Legislation and Planning Policy	2
	2.1 Wildlife Legislation	
	2.2 National Planning Policy	
	2.3 Local Planning Policy	
	2.4 Other Relevant Guidance	
	2.4.1 Selby Biodiversity Action Plan (BAP)	
	2.4.2 National Character Areas	
3.	Methods	
J .	3.1 Desk Study	
	3.2 Field Survey	
	3.2.1 Phase 1 Habitat Survey	
	3.2.2 Appraisal of Potential Suitability of Habitats to Support Protected and Notable Specie	
	·	
	3.3 Limitations	
	3.4 Evaluation of Ecological Features	
4.	Results	
	4.1 Nature Conservation Designations	
	4.1.1 Statutory Designations	
	4.1.2 Non-statutory Designations	
	4.2 Habitats	
	4.2.1 Overview	
	4.2.2 Phase 1 Habitat Types	
	4.2.2.1 Woodland and Scrub	11
	4.2.2.2 Grassland	12
	4.2.2.3 Tall Herb	12
	4.2.2.4 Open Water	12
	4.2.2.5 Cultivated/ Disturbed Land	15
	4.2.2.6 Boundaries	16
	4.2.2.7 Built-up Areas	17
	4.2.3 Invasive Non-Native Plant Species	17
	4.2.4 Summary of Evaluation	17
	4.3 Protected and Notable Species	18
5.	Identification of Potential Ecological Constraints and Recommendations	23
	5.1 Constraints and Requirements for Further Survey: Designations	
	5.1.1 Statutory Nature Conservation Designations	23
	5.1.2 Non-statutory Nature Conservation Designations	23
	5.2 Constraints and Requirements for Further Survey: Habitats	
	5.3 Constraints and Requirements for Further Survey: Species	
	5.3.1 Protected and Notable Species Scoped In	
	5.3.2 Protected and Notable Species Scoped Out	
6.	References	
-		
Anne	ex A: Legislation and Planning Policy	30
	ex B: Nature Conservation Designations	
	ex C: Phase 1 Habitat Plans	
	ex D: Photographs	

1. Introduction

This report describes the approach and findings of the Preliminary Ecological Appraisal (PEA) undertaken in support of the ecological impact assessment (EcIA) of the proposed gas-fired power station at Eggborough Power Station (referred to as the 'Proposed Development'). The terms of reference used to describe the Proposed Development in this report are consistent with those defined within the main chapters of the Environmental Statement (ES Volume I).

The purpose of the PEA was to define the baseline ecological conditions associated with the Site and determine the need for further survey work to inform the EclA. The approach applied when undertaking this PEA accords with current best practice guidelines for PEA published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2012). The PEA addresses relevant wildlife legislation and planning policy as summarised in Section 2 of this report.

In order to deliver the PEA, a desk study and an extended Phase 1 Habitat survey were undertaken by appropriately experienced ecologists, to identify ecological features within the Site and the wider potential zone of influence of the Proposed Development. The potential zone of influence relevant to different ecological features is considered within Section 3 of this report when defining desk study and field survey areas.

The objectives of the PEA were to:

- identify statutory and non-statutory nature conservation designations within the potential zone of influence of the Proposed Development;
- identify and categorise all habitats present within the Site and any areas immediately outside of the Site where there may be potential for direct or indirect effects;
- carry out an appraisal of the potential of the habitats recorded to support protected or notable species of fauna and flora;
- identify requirements for follow-up habitat and species surveys to fully define the ecological baseline;
- provide an evaluation of the relative nature conservation value of identified habitats and designated sites to inform the EcIA, where possible; and
- provide figures showing the locations of the identified ecological features.

2. Wildlife Legislation and Planning Policy

2.1 Wildlife Legislation

The following wildlife legislation is potentially relevant to the Proposed Development:

- Wildlife and Countryside Act (WCA) 1981 (as amended);
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- The Conservation of Habitats & Species Regulations 2010 (as amended);
- Protection of Badgers Act 1992; and
- The Hedgerow Regulations 1997.

The above legislation has been considered when planning and undertaking this PEA using the methods described in Section 3, when identifying potential constraints and making recommendations for further survey, as discussed in Section 5. Compliance with legislation may require the attainment of relevant protected species licences prior to the implementation of the Proposed Development.

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

2.2 National Planning Policy

The National Planning Policy Framework (NPPF) was published on 27th March 2012 and details the Government's planning policies for England and how these are expected to be applied. 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. 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. Further information on the relevant parts of the NPPF is provided as Annex A.

The Overarching National Policy Statement (NPS) for Energy (EN-1) sets out national policy for energy infrastructure. The relevant policy for nature conservation is Part 5.3 (Biodiversity and geological conservation) and states that where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. The policy also requires that the applicant shows how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.

2.3 Local Planning Policy

Relevant local planning policies adopted by Selby District Council are detailed in the following documents:

- Selby District Core Strategy Local Plan adopted October 2013; and
- Selby District Local Plan adopted February 2005.

Table 2.1 provides a summary of current policies relevant to ecology and nature conservation. 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 requirements for further survey, as described in Section 5.

Table 2.1: Summary of Local Planning Policy

Document	Planning Policy	Purpose
Selby District Core Strategy Local Plan	SP18	To promote effective stewardship of the District's wildlife by: a) Safeguarding international, national and locally protected sites for nature conservation, including Sites of Importance to Nature Conservation (SINC), from inappropriate development.
		b) Ensuring developments retain, protect and enhance features of biological interest and provide appropriate management of these features and that unavoidable impacts are appropriately mitigated and compensated for, on or off-site.
		c) Ensuring development seeks to produce a net gain in biodiversity by designing-in wildlife and retaining the natural interest of a site where appropriate, and ensuring any unavoidable impacts are appropriately mitigated and compensated for, on or off-site.
		d) Supporting the identification, mapping, creation and restoration of habitats that contribute to habitat targets in the National and Regional biodiversity strategies and the local Selby Biodiversity Action Plan (BAP).
		Wherever possible a strategic approach will be taken to increasing connectivity to the District's Green Infrastructure including improving the network of linked open spaces and green corridors and promoting opportunities to increase its multi-functionality. This will be informed by the Leeds City Region Green Infrastructure Strategy.
		Incorporation of positive biodiversity actions, as defined in the Selby BAP, will also be encouraged at the design stage of new developments or land uses.
Selby District Local Plan	ENV 9	Development proposals that would harm a local nature reserve or a site of local importance for nature conservation will not be permitted unless the need for the development outweighs the need to safeguard the nature conservation value of the site, and there are no reasonable alternatives.
	ENV 11	Development proposals that are likely to cause loss of, or damage to, an ancient woodland, will not be permitted unless the reasons for the development outweigh the nature conservation value of the woodland.
	ENV 12	Development proposals that are likely to harm the natural features of or access to river, stream and canal corridors will not be permitted unless the importance of the development outweighs these interests, and adequate compensatory measures are provided.
	ENV 13	Proposals for development that would harm the wildlife value of a pond will not be permitted unless the development need outweighs the value of the pond, and replacement habitat of equivalent wildlife value can be created on or off site and appropriately managed.

2.4 Other Relevant Guidance

2.4.1 Selby Biodiversity Action Plan (BAP)

The Selby BAP (North Yorkshire County Council, Selby District Council and the Selby BAP Partnership, 2004) is a nature conservation strategy identifying threats to habitats and species within the District and setting out the actions necessary to conserve them. Although now somewhat out of date, the BAP is a useful tool for determining threatened or uncommon habitats and species within the district. The BAP confers no particular legislative or policy protection to the habitats and species identified, but they are listed as priorities for conservation and enhancement.

A screening exercise has been completed to determine whether any of the habitats or species for which an Action Plan has been prepared are relevant or potentially relevant to the Site (see Table A1 in Annex A). Those identified as potentially relevant are as follows:

- woodland;
- arable farmland;
- lakes and ponds;

- rivers, streams and ditches;
- towns and villages;
- otter:
- water vole;
- · great crested newt; and
- bats.

2.4.2 National Character Areas

National Character Areas (NCAs) were developed by Natural England to provide a description of the landscape area and other details such as the topography, geology and soils, field patterns and boundary features, agricultural uses, semi-natural habitats and species closely associated with the area. The NCAs describe areas that share similar landscape characteristics, and which follow natural landscape boundaries rather than administrative (county) boundaries. They provide a framework for decision-making in the natural environment, particularly with regards to the planning of conservation initiatives at a landscape scale by analysing an area's broad characteristics and ecosystem services. The NCAs do not confer any legal or planning policy habitat protection.

The Site is located entirely within the Humberhead Levels National Landscape Character Area 39, which is a "flat, low-lying and large scale agricultural landscape" (Natural England, 2014). The NCA profile for the Humberhead Levels identifies a number of 'statements of Environmental Opportunity' for the NCA, which are summarised below:

- SEO 1 managing and expanding wetland habitats including internationally important lowland raised bogs, floodplain grazing marsh, wet pastures and watercourses;
- SEO 2 management of the agricultural landscape to retain its distinctive character and productivity whilst improving its contribution to biodiversity;
- SEO 3 management of landscape features such as semi-natural habitats and historic field patterns, to enhance people's understanding and enjoyment of the landscape; and
- SEO 4 protection of the open and expansive character of the landscape by ensuring new development is sensitively located, accommodates green infrastructure and makes a positive contribution to biodiversity.

3. Methods

3.1 Desk Study

A desk study was carried out to identify nature conservation designations, and protected and notable habitats and species potentially relevant to the Proposed Development.

A stratified approach was taken when defining the desk study area, based on the likely zone of influence of the Proposed Development on different ecological features, and an understanding of the maximum distances typically considered by statutory consultees. The desk study areas applied and the data sources used are detailed in Table 3.1. Desk study data returned are presented in Annex B.

Table 3.1: Desk Study Area and Data Sources

Ecological Feature	Desk Study Area	Data Source
International nature conservation designations e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site	10 km ¹	Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk) (accessed July 2016)
National statutory nature conservation designations e.g. Site of Special Scientific Interest (SSSI)	10 km	MAGIC website (accessed July 2016)
Non-statutory nature conservation designations e.g. Site of Importance for Nature Conservation (SINC)	1 km	North and East Yorkshire Ecological Data Centre (NEYEDC) (accessed August 2016)
Protected and notable habitats and species ²	1 km	NEYEDC (accessed August 2016) North Yorkshire Bat Group (NYBG) (accessed August 2016)
Ponds / other waterbodies ³	250 m ⁴	Ordnance Survey (OS) 1:25,000 mapping Aerial photography (Google Earth) MAGIC website (accessed June 2016)

3.2 Field Survey

3.2.1 Phase 1 Habitat Survey

A Phase 1 Habitat survey was undertaken by appropriately experienced AECOM ecologists 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 defined field survey area. The information gained from the survey

¹ This search area was extended beyond 10 km, where appropriate, to include additional relevant statutory nature conservation sites following consultation with North Yorkshire County Council (NYCC) on the EIA Scoping Report, in respect of the potential for impacts arising from changes in air quality on SAC/SPA/Ramsar habitats > 10 km from the emission source.

² Protected and notable habitats and species include those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2010 (as amended); and species and habitats of Principal Importance for nature conservation in England listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Records of non-native controlled weed species were also collated, such species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

³ To determine the potential for the presence of great crested newt (*Triturus cristatus*) within the Site the 250 m Study Area was

³ To determine the potential for the presence of great crested newt (*Triturus cristatus*) within the Site the 250 m Study Area was based around the wider corridor for the Proposed Gas Connection being considered at the time of survey (known as the 'Gas Connection Search Area' in the EIA Scoping Report). Therefore, some of the ponds within this Study Area are now located >250 m from the refined route of the Proposed Gas Connection.

>250 m from the refined route of the Proposed Gas Connection.

This is the typical terrestrial range of great crested newts from their breeding waterbodies and is an acceptable distance at which to consider potential impacts on the species (English Nature, 2001). Terrestrial habitat further than 250 m is not likely to be important foraging habitat unless the habitat within 250 m is of poor quality and habitat of much better quality is within 250-500 m

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 majority of the habitats were surveyed in between June and September 2016 within the optimal period for undertaking Phase 1 Habitat surveys. Additional surveys of the northern sections the Gas Connection Route were undertaken in November 2016, as access arrangements were made and the route of the Proposed Gas Connection was refined. The field survey area applied during the surveys comprised all safely accessible parts of the Site, as well as adjacent habitats to a maximum distance of 50 m, where access permission had been granted in advance of the survey, or this land was visible from within the Site boundary or from Public Rights of Way, or other publicly accessible areas.

All habitat types present within the field survey area were recorded and mapped. 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.

3.2.2 Appraisal of Potential Suitability of Habitats to Support Protected and Notable Species

The Phase 1 Habitat survey was 'extended' to include an appraisal of the potential suitability of the habitats present to support protected and notable species of plants or animals (as defined in Table 3.1). Field signs, habitat features with potential to support protected or notable species and any sightings or auditory evidence were recorded when encountered, but no detailed surveys were carried out for any particular species (with the exception of great crested newt, as outlined below).

All ponds / waterbodies identified by desk study and field survey were inspected and appraised for their suitability for great crested newt. This included derivation of a Habitat Suitability Index (HSI) for all ponds based on the standard method (Oldham *et al.*, 2000). HSI provides qualitative data on the potential likelihood of great crested newts being present. These data may subsequently be used to decide if a full survey is required to determine the presence or likely absence of the species.

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), such as Japanese knotweed (*Fallopia japonica*). Locations of plants or stands of any such invasive non-native plant species found were recorded.

Section 5 of this report identifies further requirements for species survey based on the results of the habitat survey.

3.3 Limitations

The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the desk study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

The majority of the Site was surveyed at an optimum time of year for the identification of typical and notable plant species (June to September). Plant identification during surveys of parts of the Site that could not be accessed until October or November was somewhat constrained by the time of year that the survey was completed, though this did not prevent the characterisation of the habitats present or adversely affect the appraisal of their potential to support protected or notable species. In addition, given the habitat types recorded in the field survey area it is considered unlikely that notable flora species will have been missed, because the areas surveyed were largely arable farmland under crops.

3.4 Evaluation of Ecological Features

The value of habitats and designated sites identified within this PEA has been defined with reference to the following geographic scale. Further information on the approach to the evaluation of ecological

features is provided in Appendix 10B (Ecological Impact Assessment Methodology) of the ES (Volume III).

- international (generally this is within a European context, reflecting the general availability of good data to allow cross-comparison);
- national (Great Britain, but considering the potential for certain ecological features to be more notable (of higher value) in an England context relative to Great Britain as a whole);
- regional (Yorkshire);
- county (North Yorkshire);
- district (Selby);
- local (has value at the Site level); and
- negligible (has a very low value at the Site level but considered not to merit retention or mitigation).

Evaluation of ecological features identified has been undertaken to inform the ecological impact assessment presented in Chapter 10: Ecology and Nature Conservation of the ES Volume I. This has been included within this PEA to enable scoping out of features of low ecological value from the ecological impact assessment at an early stage, and to streamline the ES chapter.

4. Results

4.1 Nature Conservation Designations

4.1.1 Statutory Designations

Table 4.1 details the international nature conservation designations identified by the desk study based on the method given in Section 3.1 of this report. The designations are listed in descending order, with those closest to the Site listed first. The location of the designations in relation to the Site is shown on Figure 10C.1 in Annex B. Full information on the qualifying features of the designations and their conservation objectives is provided separately in Appendix 10H (Habitats Regulations Assessment (HRA) Matrices Signposting, ES Volume III).

Table 4.1: International Nature Conservation Designations

Designation	Ecological Importance	Reason(s) for Designation	Relationship to the Site
River Derwent SAC	International	Annex II species: river lamprey (Lampetra fluviatilis). Other Annex II species present as a qualifying feature include sea lamprey (Petromyzon marinus), bullhead (Cottus gobio) and otter (Lutra lutra). The following Annex I habitat is also present as a qualifying feature: "Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation."	Located 9.5 km to the east. Potential habitat connectivity is via the River Aire, which flows in an easterly direction through the Site. However, the Aire joins the River Ouse downstream of the confluence of the River Derwent with the Ouse and therefore there is no potential for impacts via the river system. Air quality impacts are not relevant to this site as aquatic habitats are not generally susceptible to nitrogen and acid deposition.
Skipwith Common SAC ⁵	International	Annex I habitats: 'Northern Atlantic wet heaths with <i>Erica tetralix'</i> and 'European dry heaths'	Located 10.5 km to the north-east. Habitats susceptible to nitrogen and acid deposition, and are potentially within zone of influence of air emissions from the Proposed Development. No other potential impact pathways identified.
Hatfield Moor SAC ⁵	International	Degraded raised bogs still capable of natural regeneration	Located 19 km to the south-east. Habitats susceptible to nitrogen and acid deposition, and are potentially within zone of influence of air emissions from the Proposed Development. No other potential impact pathways identified.
Thorne Moor SAC ⁵	International	Degraded raised bogs still capable of natural regeneration	Located 14 km to the south-east. Habitats susceptible to nitrogen and acid deposition, and are potentially within zone of influence of air emissions from the Proposed Development. No other potential impact pathways identified.
Humber Estuary SAC/ SPA/ Ramsar/ SSSI ⁵	International	Estuarine habitats including dune systems, intertidal mud and sand flats, saltmarshes and brackish lagoons. Breeding grey seal (<i>Halichoerus</i>	Located 15 km to the east. Potential habitat connectivity via the River Aire which flows through the Site and into the Humber Estuary

⁵ Scoped into PEA following comments on Scoping Report from NYCC Ecologist

Designation	Ecological Importance	Reason(s) for Designation	Relationship to the Site
		grypus). Internationally important populations of wintering and passage wildfowl and waders.	approximately 25 km downstream. Air quality impacts are not relevant to this site as estuarine habitats are not generally susceptible to nitrogen and acid deposition. The potential for effects on water quality will be considered within the impact assessment.
Strensall Common SAC ⁵	International	Annex I habitats: 'Northern Atlantic wet heaths with <i>Erica tetralix'</i> and 'European dry heaths'	Located 35 km to the north. Habitats susceptible to nitrogen and acid deposition, and are potentially within zone of influence of air emissions from the Proposed Development. No other potential impact pathways identified.
North York Moors National Park SAC ⁵	International	Annex I habitats: 'Northern Atlantic wet heaths with <i>Erica tetralix</i> ' and 'European dry heaths'	Located 60 km to the north. Habitats susceptible to nitrogen and acid deposition, and are potentially within zone of influence of air emissions from the Proposed Development. No other potential impact pathways identified.

Table 4.2 details the national nature conservation designations identified by the desk study based on the method given in Section 3.1 of this report. The designations are listed in descending order, with those closest to the Site listed first. The location of the designations in relation to the Site is shown on Figure 10C.2 in Annex B.

Table 4.2: National Nature Conservation Designations

Designation	Ecological Importance	Reason(s) for Designation	Relationship to the Site
Burr Closes, Selby SSSI	National	A damp alluvial meadowland, agriculturally unimproved and rich in flowering plant species, of a type which is now scarce in the Vale of York.	Located 6 km to the north. Habitats potentially susceptible to nitrogen and acid deposition, and are potentially within zone of influence of air emissions from the Proposed Development. No other potential impact pathways identified.
Forlorn Hope Meadow SSSI	National	Important for its unimproved neutral grassland plant community, an increasingly rare habitat type which is threatened nationally as a result of agricultural improvements.	Located 7 km to the south. Potential impact pathways as above.
Eskamhorn Meadows SSSI	National	Nationally important site for species-rich neutral grassland.	Located 8 km to the east. Potential impact pathways as above.
Brockadale SSSI	National	A narrow, steep-sided valley supporting woodland and areas of calcareous grassland sustaining a wealth of limestone species.	Located 8 km to the southwest. Potential impact pathways as above.
Went Ings Meadows SSSI	National	The best example of unimproved neutral grassland known in South Yorkshire.	Located 9 km to the southeast. Potential impact pathways

Designation	Ecological Importance	Reason(s) for Designation	Relationship to the Site
			as above.

4.1.2 Non-statutory Designations

Table 4.3 details the non-statutory nature conservation designations identified by the desk study based on the method given in Section 3.1 of this report. The designations are listed in descending order, with those closest to the Site listed first. The location of the sites is shown on Figure 10C.3 in Annex B.

Table 4.3: Non-statutory Nature Conservation Designations

Designation	Ecological Importance	Reason(s) for Designation	Relationship to the Site
Selby Canal and Towpath SINC (SE52-19)	County	Qualifies based on the presence of species rich areas of seminatural neutral and calcareous grassland, as well as nutrient-rich standing waters.	300 m north-west There is limited habitat connectivity between the Site and the canal as intervening land is intensively managed for arable production.
Burn Disused Airfield SINC (SE62-19)	County	Qualifies based on the presence of areas of species rich seminatural neutral grassland.	The SINC is separated from the Site by the East Coast Main Line, as well as Burn Lane, and there is no direct habitat connectivity.
Disused Pit (part in Eggborough) deleted SINC (SE52-21)	Local	n/a – site no longer qualifies under SINC criteria.	800 m south Separated by land intensively managed for arable production.

4.2 Habitats

4.2.1 Overview

The existing coal-fired power station is dominated by operational buildings, plant, infrastructure and associated areas of hard standing and bare ground. Semi-natural habitats present include blocks of plantation woodland on screening bunds around the periphery, as well as a large emergency water storage reservoir (lagoon) and a pond in the east of the existing coal-fired power station. All of the semi-natural habitats associated with the existing coal-fired power station have been planted or have become established since the time of its construction in the 1960s. Land to the north, east and south of the existing coal-fired power station comprises intensively managed arable fields bounded by species-poor hedgerows and/or drainage ditches. To the west of the existing coal-fired power station there is a golf course, the A19 and an industrial estate beyond.

The Proposed Cooling Water Connections cross intensively managed arable farmland between the existing coal-fired power station and the River Aire to the north. The route is mainly located within large arable fields, but also crosses a wet ditch (Ings and Tetherings Drain) and a tree-lined dry ditch (un-named).

The Proposed Gas Connection passes through an intensively managed arable landscape, characterised by large arable fields bounded by drainage ditches. Species-poor hedgerows and/or scattered trees occur locally along field boundaries. The route also crosses beneath the River Aire to the north of the existing coal-fired power station.

4.2.2 Phase 1 Habitat Types

The habitats recorded within the field survey area are described below and illustrated on Figure 10C.4 in Annex C. Representative photographs are provided in Annex D.

4.2.2.1 Woodland and Scrub

Semi-Natural Broad-Leaved Woodland

Semi-natural woodland cover, i.e. that which does not obviously originate from planting, is limited to a single isolated copse, 0.1 ha in size, located adjacent to a proposed access track to the Proposed Gas Connection. The canopy is dominated by mature pedunculate oak (*Quercus robur*), with a typical diameter at breast height (DBH) of 0.4 – 0.5 m. The shrub layer includes frequent field maple (*Acer campestre*) and hawthorn (*Crataegus monogyna*), with occasional elder (*Sambucus nigra*). Ground flora is species poor with abundant nettle (*Urtica dioica*) and frequent bramble (*Rubus fruticosus* agg) and ivy (*Hedera helix*). This copse is very isolated within a landscape dominated by arable fields; the nearest area of woodland is over 500 m away.

This habitat type falls within the remit of the Selby BAP for 'woodland', but due to its small size and isolated location it is evaluated to be of Local ecological importance.

Plantation Woodland

Within the existing coal-fired power station, semi-mature to mature mixed plantation woodland is present on the screening bunds around the coal stockyard and emergency coal stockyard, covering a total area of approximately 8 ha. This dates from the time of construction of the existing coal-fired power station in the late 1960s. The species composition and proportion of broad-leaved and coniferous trees varies throughout the stand, but in general non-native alder (*Alnus* sp.), Corsican pine (*Pinus nigra*) and red oak (*Quercus* rubra) are abundant in the canopy, with locally frequent birch (*Betula* sp.) and Norway maple (*Acer platanoides*). The shrub layer (where present) includes hawthorn, elder, holly (*Ilex aquifolium*), gorse (*Ulex europaeus*) and field maple. Ground flora is generally sparse, with locally frequent nettle and bramble. Himalayan balsam (*Impatiens glandulifera*) is present throughout the woodland, ranging from scattered single plants to larger stands.

Smaller blocks of broad-leaved and mixed plantation, typically covering less than 1 ha, are present in linear belts at the western and northern boundaries of the existing coal-fired power station, adjacent to roads, the railway line and within the golf course. Other species recorded in these stands include white poplar ($Populus\ alba$), sycamore, cherry ($Prunus\ sp.$), ash ($Fraxinus\ excelsior$), beech ($Fagus\ sylvatica$), willow ($Salix\ spp.$) and poplar ($Populus\ sp.$). A shrub layer is present in the more mature stands and includes elder, cherry laurel ($Prunus\ laurocerasus$), holly and hawthorn. Ground flora is generally species poor, dominated by common nettle, with frequent bramble and occasional Himalayan balsam. Stands vary in age from immature (typical DBH $0.1-0.2\ m$) to mature (typical DBH $0.4\ m$).

Semi-mature to mature coniferous plantation, with Corsican pine, Lodgepole pine (*Pinus contorta*) and larch (*Larix* sp.), is present on bunds enclosing a large lagoon (Water body 1) and a medium sized pond (Water body 2) located in the east of the existing coal-fired power station.

Outside of the existing coal-fired power station, plantation woodland is only present in one location within the Site, on the embankments of the A19 where it crosses over the East Coast Main Line (ECML) railway. This comprises semi-mature broad-leaved plantation with ash, oak (*Quercus* sp.) and Scot's pine (*Pinus sylvestris*) in the canopy. The shrub layer includes elder, dogwood (*Cornus sanguinea*), field maple, blackthorn (*Prunus spinosa*), osier (*Salix viminalis*) and crab apple (*Malus sylvestris*). Ground flora is generally sparse, with locally abundant common nettle and bracken (*Pteridium aquilinum*).

This habitat type falls within the remit of the Selby BAP for 'woodland' and although even-aged and with limited canopy diversity, has been identified as a target for local conservation action and is therefore evaluated to be of Local ecological importance.

Scattered Trees

Broad-leaved standards are occasionally present along field boundaries and drainage ditches that are crossed by the Proposed Gas and Cooling Water Connections. Pedunculate oak and ash were the most frequently recorded species and range from immature to mature in age. Scattered trees or lines of trees tend to be relatively isolated in this heavily modified arable landscape.

Broad-leaved and coniferous standards are also frequent on the banks of the railway cutting to the south-west of the existing coal-fired power station. Most are semi-mature to mature in age, with a typical DBH between 0.25 and 0.4 m. Sycamore, Scot's pine and poplar (*Populus* sp.) are frequent.

Trees associated with hedgerows are described separately within the Hedgerow section below.

None of the mature trees were noted to be of particular ecological value in isolation and as such this habitat type is evaluated to be of negligible ecological importance.

Scrub

Scattered scrub of hawthorn, bramble, dog rose (*Rosa canina*), blackthorn, elder and goat willow (*Salix caprea*) is abundant along the banks of the railway cutting to the south-west of the existing coal-fired power station. Scattered scrub is also occasional along the banks of the River Aire, along field boundaries and within landscaped areas of the existing coal-fired power station.

Dense gorse and bramble scrub is present to the south and east of the lagoon (Water body 1), as well as around the pond to the east of the cooling towers (Water body 2).

This habitat type is ubiquitous throughout the field study area and wider landscape in the areas not in arable production and is therefore evaluated to be of negligible ecological importance.

4.2.2.2 Grassland

Improved / Species-Poor Semi-Improved Grassland

This habitat type is common within the existing coal-fired power station along verges, screening bunds, and below the cooling towers. It is also found along the railway cutting banks to the southwest of the existing coal-fired power station, where it is generally closely grazed by rabbits. Narrow strips of agriculturally enriched species-poor grassland occur along field boundaries, ditch banks and road verges within the arable landscape to the north of the existing coal-fired power station which is crossed by the Proposed Gas and Cooling Water Connections.

The grassland areas are dominated by robust grasses and herbs, including cock's-foot (*Dactylis glomerata*), Yorkshire-fog (*Holcus lanatus*), perennial rye-grass (*Lolium perenne*), false oat-grass (*Arrhenatherum elatius*), white clover (*Trifolium* repens) and ribwort plantain (*Plantago lanceolata*).

None of the grassland within the field study area was noted to be species-rich, and is evaluated to be of negligible ecological importance.

4.2.2.3 Tall Herb

Tall Ruderal

There are stands of tall ruderal vegetation on the steep banks of Ings and Tetherings Drain and the River Aire to the north of the existing coal-fired power station. Elsewhere within the Site, tall ruderal vegetation occurs in association with other habitats, such as scattered scrub and trees along railway cuttings and within and at the edges of woodland areas. Typical species include common nettle, cow parsley (*Anthriscus sylvestris*), Himalayan balsam, rosebay willowherb (*Chamerion angustifolium*) and creeping thistle (*Cirsium arvense*).

This habitat type is ubiquitous and is evaluated to be of negligible ecological importance.

4.2.2.4 Open Water

Standing Water bodies

A total of twelve standing water bodies were identified within the desk study and field survey areas. Six were located within the Site boundary and six were located within surrounding land. These are described briefly in Table 4.4 below. Full details of all waterbodies, including photographs, are provided separately in Appendix 10E (Great Crested Newt Survey Report in ES Volume III). Of the water bodies identified, four were found to be defunct i.e. no longer holding water such that they could

reasonably be considered to represent standing open water bodies, and are not considered further (Water bodies 7, 8, 9 and 10).

Water body 1 was evaluated as to whether it could be a priority habitat, but it is not because it has a bare butyl lining, which has prevented the development of marginal habitat and limits the development of habitat at the bed of the pond and associated biodiversity. It is evaluated as being of Negligible ecological importance. Stocked coarse fish, native and non-native species are known to be present from the previous use for angling. A full fisheries survey will be carried out, but unless the survey reports that there is an assemblage rated as being of particular importance for conservation within Selby District, albeit an artificial one, it will not affect the overall evaluation of Negligible based on the habitat.

Water body 2 falls within the remit of the Selby BAP habitat 'lakes and ponds'. It supports a good diversity of aquatic and marginal plants, and is likely to support a relatively diverse aquatic invertebrate assemblage. This water body is evaluated as being of Local ecological importance.

The remaining water bodies within the operational area of the existing coal-fired power station site are concrete tanks and are evaluated as being of Negligible ecological importance (Water bodies 3 and 4). Likewise, the small ornamental pond at the main office building at the existing coal-fired power station is evaluated as being of Negligible ecological importance, because it does not contain a diverse assemblage of aquatic or marginal plants; the presence of abundant goldfish limits its ecological value.

Water bodies outside the direct footprint of the Proposed Development have not been subject to evaluation of their ecological importance, because there are no pathways by which they could be affected (Water bodies 6, 8, 11 and 12). These water bodies do not required any further consideration in the impact assessment.

Table 4.4: Standing Water bodies within the Field Survey Area

Water body Reference	Water body Type	Distance from the Site	Description
1	Water storage reservoir (lagoon)	Within existing coal-fired power station	A large man-made, butyl lined reservoir, approximately 1.3 ha in size and stocked with coarse fish. The open water is relatively clear, up to 1 m deep and has dense submerged beds of water milfoil (<i>Myriophyllum</i> sp.), as well as a single patch of white water-lily (<i>Nymphaea alba</i>) at the south-east corner. Occasional stands of common reed (<i>Phragmites australis</i>) and yellow iris (<i>Iris pseudacorus</i>) are present around the margins, but the exposed liner has prevented the establishment of a more extensive marginal community. The reservoir is surrounded on all sides by earth banks, colonised by short, rabbit grazed species poor grassland, planted above with semi-mature to mature coniferous screening woodland.
2	Medium sized pond	Within existing coal-fired power station	A medium sized pond (500 m²) within a landscaped area to the east of the existing coal-fired power station cooling towers. The open water is clear and up to 1 m deep. Stands of bulrush (<i>Typha</i> sp.) are present around the pond margins, with occasional yellow iris. Dense scrub (gorse and bramble) and plantation coniferous woodland are present on raised banks around the pond. Fish are known to have been stocked in the past.
3	lined surface coal-fired power aquatic vegetat		A concrete lined surface water attenuation tank supporting no aquatic vegetation. The tank is regularly drained and has a thick layer of silt at the base.
4	Concrete cooling water tanks and channels	Within existing coal-fired power station	Concrete tanks and channels associated with the existing coal- fired power station cooling water system. These do not support any aquatic vegetation and are regularly drained.
5	Ornamental	Within existing	A small ornamental pond adjacent to office buildings within the

Water body Reference	Water body Type	Distance from the Site	Description
	pond	coal-fired power station	existing coal-fired power station. The pond has scattered ornamental marginal planting, is stocked with goldfish and surrounded by hard standing.
6	Golf course pond	80 m west of existing coal- fired power station	Small ornamental pond within golf course. The pond supports abundant aquatic and marginal plants include bogbean (<i>Menyanthes trifoliata</i>), an ornamental lily species, yellow iris and bulrush. It is surrounded by ornamental shrub and tree planting within the short mown golf course fairways.
7	Attenuation pond	130 m west of existing coal- fired power station	A concrete triangular shaped attenuation pond on the edge of an industrial estate on the west side of the A19. The pond is completely overgrown with dense stands of bulrush growing on the accumulated silts within the pond, and very little open water was present at the time of survey.
8	Shallow depression in floodplain of River Aire	Within Proposed Gas Connection area	An area of open water shown on OS maps to the north of the River Aire. During the field survey, this was found to be a dry depression on land between the top of the river bank and the adjacent flood embankment. The base of the depression supports species poor semi-improved grassland and no aquatic or marshy vegetation, indicating that it does not regularly hold water. It is only likely to be inundated when the river floods.
9	Shallow depression in floodplain of River Aire	400 m east of Proposed Gas Connection area	As Water body 8.
10	Dry former field pond and ditch	380 m east of Proposed Gas Connection area	Pond is defunct, having succeeded entirely to woodland.
11	Circular attenuation pond on east side of Selby Canal	300 m north- west of Proposed Gas Connection area and AGI	The pond has vertical stone walls on three sides. There is an earth bank to the field side which supports a hedgerow dominated by hawthorn. Water in the pond appeared to be relatively deep (>1 m), though access was restricted due to the high stone walls. The pond supports abundant aquatic and marginal vegetation, with substantial emergent stands of bulrush and a dense surface coverage of duckweed at the time of survey.
12	Circular attenuation pond on west side of Selby Canal	350 m north- west of Proposed Gas Connection area and AGI	As Water body 11.

Wet Ditches / Drains

Ings and Tetherings Drain is a large drainage channel to the north of the existing coal-fired power station which will be crossed by the Proposed Gas and Cooling Water Connections. It is managed by the Danvm Drainage Commissioners, and is consequently subject to regular bankside and channel vegetation clearance and dredging to maintain the drainage function. The wetted channel is approximately 2 m wide and up to 1 m deep, with no discernible flow. Stands of reed sweet-grass (*Glyceria maxima*) are abundant along the margins and submerged waterweed (*Elodea* sp.) is visible within the channel. The dry banks are colonised by either tall ruderal herbs (predominantly common nettle) with frequent bramble, or by regularly managed species-poor semi-improved grassland, as described above. This habitat is representative of the Selby BAP habitat 'Rivers, streams and ditches' and is evaluated to be of Local ecological importance.

Hensall Dyke is a drainage channel to the south-east of the Site, the western extent of which falls within the Site boundary. This 100 m section is heavily shaded by trees and dense scrub along the banks and is not managed to maintain drainage function. The wetted channel was up to 1 m wide

and shallow (less than 0.2 m deep) at the time of survey, with a deep substrate of silt and leaf detritus. In-channel and marginal aquatic vegetation is generally absent. Water levels within the dyke are likely to fluctuate throughout the year, and it is likely to dry up completely at times. Although this habitat falls within the remit of the Selby BAP habitat 'Rivers, streams and ditches', it is evaluated to be of negligible ecological importance in its current condition.

All other drainage ditches within the Site were found to be predominantly dry at the time of survey (see Dry Ditches section below).

Running Water

The River Aire is located approximately 0.5 km north of the existing coal-fired power station, and is crossed by the Proposed Gas Connection. Cooling water used by the existing coal-fired power station is drawn from the River Aire via an abstraction pumphouse in Chapel Haddlesey, and is discharged back to the River via an outfall approximately 1 km downstream of the abstraction. A large weir is present within the River between the abstraction and discharge points and this coincides with the tidal limit of the River.

The river channel at both the existing cooling water abstraction and discharge points is approximately 25 to 30 m wide and appears to be several metres deep. At the time of the survey the water was very turbid with suspended sediment and the flow was generally slack within the stretch adjacent to the Site. Occasional small stands of reed canary-grass (*Phalaris arundinacea*) were visible at the margins of the channel; no other macrophytes (aquatic plants) were noted and they appear to be largely absent in the River.

Steep banks on both sides of the River support tall ruderal herb communities, dominated by common nettle and Himalayan balsam, with occasional willow scrub, mostly of osier. An engineered flood embankment is present along the south bank of the River, and on the north bank downstream of properties within the village of Chapel Haddlesey. These embankments support species-poor semi-improved grassland that is grazed by cattle.

The River Aire is likely to fall within the remit of the 'Rivers, streams and ditches' Habitat Action Plan for Selby BAP habitats, and is therefore evaluated to be of Local ecological importance. Further consideration of the potential for direct or indirect impacts on the river channel and its banks is required in the ecological impact assessment.

4.2.2.5 Cultivated/ Disturbed Land

Arable

The majority of land crossed by the Proposed Gas and Cooling Water Connections is intensively managed for arable production. Fields are generally large, with boundaries delineated mostly by dry ditches / drains, occasionally with associated scattered trees and hedgerow features. Field margins, where present, generally comprise very narrow strips of agriculturally enriched species-poor semi-improved grassland (as described in the Grassland section above).

Arable farmland is a Selby BAP habitat, largely due to the diversity of declining farmland birds that the habitat type supports. The arable farmland crossed by the Proposed Gas and Cooling Water Connections is considered to represent an example of this habitat type, and thus contributes towards the regional arable farmland resource. However, the arable land within the field study area was noted to be relatively highly intensive i.e. with very limited uncultivated headlands, and thus within the county context this arable land is less ecologically important than those areas with arable land subject to farming stewardship agreements, that aim to increase biodiversity within arable land. On this basis, the arable farmland is evaluated to be of Negligible ecological importance.

Amenity Grassland

Regularly mown and managed grassland is present within verges around the existing coal-fired power station, as well as within the golf course to the west. It is also present within residential gardens alongside the corridor for the Proposed Gas Connection. This habitat is ubiquitous and is evaluated to be of Negligible ecological importance.

Ephemeral / Short Perennial

Patchy assemblages of annual and short perennial herbs are growing up through areas of hard standing and railway ballast associated with the coal stockyard and emergency coal stockyard areas within the existing coal-fired power station, as well as along the railway line to the south-west. Species noted include St John's-wort (*Hypericum* sp.), ragwort (*Senecio* sp.), scarlet pimpernel (*Anagallis arvensis*), yellow-wort (*Blackstonia perfoliata*), common centaury (*Centaurium erythraea*), rosebay willowherb, broad-leaved willowherb (*Epilobium montanum*), weld (*Reseda luteola*), Himalayan balsam and buddleia (*Buddleja davidii*).

There are no specific criteria for determining what falls within the category of 'brownfield habitat' type that is included within the Selby BAP for the 'Towns and Villages' habitat action plan. However, when considered against the criteria for the NERC Act S41 priority habitat 'open mosaic habitats on previously developed ground', the habitat within the emergency coal storage area does not meet all of the criteria. The habitat is approximately 3 ha in size, so meets the minimum criteria of 0.25 ha, but the compacted nature of the substrate (due to it being previously used as a coal storage area) means that there is no loose or bare substrate that would provide ecological niches for terrestrial invertebrates. The area is also fairly uniform in terms of vegetation height, and does not provide a gradient of different successional communities; vegetation growth is limited due to the lack of substrate on the compacted ground. This area does not therefore meet the criteria for NERC Act S41 open mosaic priority habitat, and is evaluated to be of Negligible ecological importance.

The smaller areas of brownfield habitat associated with the rail sidings around the coal stockyard are more diverse in terms of the range of vegetation heights and ecological niches, but do not satisfy the first criteria for NERC Act S41 open mosaic habitat because they are smaller than 0.25 ha in extent. These areas are therefore also evaluated to be of Negligible ecological importance.

Introduced Shrubs

Soft landscaping within the existing coal-fired power station is dominated by exotic / ornamental shrub and tree species / varieties, including Diels' cotoneaster (*Cotoneaster dielsianus*), box (*Buxus* sp.), Leyland cypress (*Cupressus* × *leylandii*), rose (*Rose* spp.), cherry (*Prunus* sp.) and oak (*Quercus* sp.). These areas are of Negligible ecological importance.

4.2.2.6 Boundaries

Hedgerows

Within the existing coal-fired power station, there are a small number of species poor intact hedgerows along field boundaries, dominated by hawthorn. Young planted hedgerows of hawthorn and field maple also occur in association with some areas of plantation woodland.

The hedgerow network within the intensively managed arable landscape crossed by the Proposed Gas and Cooling Water Connections is patchy and species-poor. Intact and defunct hedgerows are locally present, generally dominated by hawthorn, with frequent blackthorn, occasional hazel (*Corylus avellana*), elder and field maple, and, rarely, crab apple. Hedgerow trees are a frequent component, mostly comprising mature pedunculate oak or ash. All of the hedgerows identified are species-poor and therefore fall outside the remit of the Hedgerow Regulations and do not represent examples of the Selby BAP habitat 'ancient and/ or species-rich hedgerows'. However, all hedgerows are NERC Act S41 priority habitats, and those within the Site are evaluated to be of Local ecological importance.

Dry Ditches / Drains

Large arable fields within agricultural land crossed by the Proposed Gas and Cooling Water Connections are mostly bounded by drainage ditches. At the time of survey, the majority of these ditches were either completely dry, or held no more than a surface film of standing water. All may hold water during winter or spring, but are likely to be dry for significant periods of the year. This is reflected in the habitat present in the base of these ditches, which generally comprises species poor grassland or bare earth. Plants indicative of marshy conditions, such as rushes (*Juncus* sp.) are rare.

Most dry ditches have a channel width of 2-3 m and depth of 2 m. Ditch banks are generally steep and support short, species-poor semi-improved grassland, the result of regular maintenance and

agricultural enrichment. Field boundary features, such as scattered trees and hedgerows, are associated with some dry ditches.

There are also smaller drains in places, with channels less than 1 m wide and deep. These are generally less intensively managed and support taller grassland (species poor due to agricultural enrichment), tall ruderal and scattered scrub on their banks, and marshy or swamp vegetation with the channel, such as rushes, common reedmace and meadowsweet (*Filipendula ulmaria*).

Drainage channels are also present within the existing coal-fired power station, including butyl lined drains adjacent to hard standing areas, such as car parks, and concrete lined drains around the coal stockyard and emergency coal stockyard. These were all dry during field surveys.

These habitats are evaluated to be of Negligible ecological importance.

4.2.2.7 Built-up Areas

Bare Ground

Surfaced and un-surfaced hardstanding is found throughout the existing coal-fired power station. This has not been mapped on the Phase 1 Habitat plans (Annex C) to distinguish it from other areas of bare ground, such as those associated with the main coal stockyard. Areas of bare ground that have been colonised by ephemeral / short perennial vegetation, as described above, are mapped under the habitat type of 'cultivated/disturbed ground – ephemeral/short perennial on the Phase 1 Habitat plans (Figure 10C.4). These areas are evaluated to be of Negligible ecological importance.

Buildings

A variety of industrial buildings and built structures are located within the Site associated with the existing coal-fired power station, including brick built plant rooms, site cabins, gatehouse buildings, amenity and office blocks, large sheet material warehouses, gas and oil tanks, conveyors and cooling towers.

There are several residential and farm properties alongside the route of the Proposed Gas Connection, none of which will be affected by the Proposed Development. Plant buildings and pumping station infrastructure are present within the existing cooling water abstraction point on the River Aire.

This habitat type is of Negligible ecological importance.

4.2.3 Invasive Non-Native Plant Species

Himalayan balsam is present in many areas of the existing coal-fired power station, in association with plantation woodland, drainage ditches and areas of ephemeral / short perennial vegetation over hard standing. Its relative abundance varies between scattered individual plants to larger stands.

Within the Proposed Gas and Cooling Water Connections areas, Himalayan balsam is abundant on the banks of the River Aire. Occasional scattered plants are also present along drainage ditches.

The locations of Himalayan balsam have not been highlighted on the Phase 1 Habitat plans as they are too numerous. Measures to control its spread will be required in all areas of the Site during construction works.

No other invasive non-native plant species were identified during the field surveys.

4.2.4 Summary of Evaluation

All of the habitats present within the field study area were found to be of Local value to nature conservation or lower; all are ubiquitous and/or widespread and none were found to be particularly rare or threatened within the county. Table 4.5 provides a summary of the evaluation of locally important habitats associated with the Site with reference to guidance for the recognition of NERC Act S41 (Maddock, 2011), North Yorkshire SINC (North Yorkshire SINC panel, 2008) and Selby BAP quality habitats. This assessment is preliminary and further surveys may be required to investigate the value of habitats further, as detailed in Section 5 of this report.

To ensure compliance with the EcIA guidelines and planning policy, the habitats identified in Table 4.5 are considered as part of the EcIA where direct habitat losses will occur. This will enable impacts on ecologically important habitats as a result of the Proposed Development to be fully assessed, and any mitigation/ compensation identified to demonstrate no net loss of biodiversity. All of the remaining habitats are considered to be of Negligible nature conservation value, as they represent species-poor examples of habitats that, in most cases, are widespread in the landscape. Detailed impact assessment of these habitats is not considered necessary because they are not evaluated to be ecologically important, as defined in the EcIA guidelines (CIEEM, 2016); however losses of these habitats, in combination with habitat losses of ecological important habitat features, should be quantified as part of the no net loss of biodiversity strategy to achieve planning policy compliance.

Table 4.5: Summary of Evaluation

Habitat	NERC Act?	SINC Quality?	Selby BAP?	Supporting Comments	Ecological Importance
Semi-natural broad-leaved woodland	х	х	✓	A single small copse (0.1 ha) adjacent to the Site boundary.	Local
Plantation woodland	х	х	✓	Blocks of broad-leaved, mixed and coniferous plantation around the existing coal-fired power station.	Local
Pond (Water body 2)	✓	х	✓	Located within the existing coal-fired power station.	Local
Ings and Tetherings Drain	х	х	✓	A wet drainage ditch within farmland to the north of the existing coal-fired power station.	Local
River Aire	✓	х	✓	Located to the north of the existing coal-fired power station.	Local
Hedgerows	✓	х	х	A small number of species poor hedgerows present within the existing coal-fired power station and within arable farmland to the north.	Local

Key to symbols: \checkmark = yes, x = no

4.3 Protected and Notable Species

Table 4.6 provides a summary of potentially relevant species identified through a combination of desk study and field survey. The table summarizes the conservation status of each species and provides comment on the likelihood of presence.

Species present on Site are those for which recent direct observation or field signs confirmed presence. Species that 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. Species unlikely to be present are only mentioned where there are desk study records but there is no suitable habitat in the zone of influence, or there are other reasons why presence is unlikely. Brief comments are provided to support the determinations made in Table 4.6 in the text below.

Where species are identified in Table 4.6 as likely or possible, they are likely to represent legal constraints or may be material to determination of a planning application. Further surveys may be required to determine presence or likely absence. Requirements for further survey are identified in Section 5 of this report.

Table 4.6: 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?	Present / Potentially Present in Wider Zone of Influence?			
Great crested newt		√	✓	?	√			
	HSI assessmer		s within the releva	ant field survey area	ne Site. The results of the a are provided in			
	water bodies withe Site boundar	thin the Site bound ary (Water bodies 6	dary (Water bodies 5, 11, 12). The rer	s 1 and 2) and three maining seven water	great crested newt: two e water bodies outside er bodies have no/ poor ater bodies 3, 4, 5, 7, 8, 9			
Bats	✓	✓	✓	?	✓			
	A small number of records of common pipistrelle bats (<i>Pipistrellus pipistrellus</i>) and other unidentified pipistrelle bats (<i>Pipistrellus</i> sp.) were returned in the desk study.							
	Buildings / structures and trees within the Site have the potential to be used by roosting bats.							
	provide bat fora the Proposed G is likely to be lo are often isolate River Aire and I managed nature	iging / commuting lass and Cooling Wa w level use of bour ed and defunct (not ngs and Tethering	nabitat. The inten ater Connections ndary features, su t continuous). The s Drain within the pankside trees; as	sively managed ara provides low quality ch as trees and he e quality of the ripa Site for bats is limit	nd and standing water, able farmland crossed by habitat for bats. There dgerows, though these rian habitat along the ed by their heavily of bat activity associated			
Badger (Meles meles)	√	х	х	?	√			

No records of badger were returned in the desk study. However, there is suitable habitat within the Site for badger, such as woodland, and this species may be present.

Species	Legally Protected Species?	Species of Principal Importance?	Other Notable Species?	Present on Site?	Present / Potentially Present in Wider Zone of
Otter (<i>Lutra</i> lutra)	✓	✓	✓	?	✓

Otter has been recorded along the River Aire and Selby Canal within the relevant desk study area.

Transitory presence of otter along the section of the River Aire that will be affected by the Proposed Development is likely, but regular presence of otter is unlikely, as the heavily managed banks and absence of trees is unsuitable for otter holts or refuges.

It is possible that Ings and Tetherings Drain is used by otters commuting through the landscape. Use of the section of drain to be affected by the Proposed Development is likely to be transitory as there is a lack of suitable cover (scrub, trees) along the drain for otter refuge.

It is possible that the section of Hensall Dyke within the Site is also used by transitory otters commuting through the landscape. Although the relevant section of Hensall Dyke is over 2 km from the River Aire, it is connected via suitable foraging/ commuting habitat on Ings and Tethering Drain. However, the shallow nature of the ditch means and possible summer drying means that the habitat is unsuitable to support a resident population of otters. Any potential usage would therefore be on occasion by passage otters only.

The lagoon (Water body 1) within the existing coal-fired power station is unlikely to be used by otter as it is located over 500 m from Ings and Tetherings Drain and over 1 km from the River Aire and there is no suitable connecting habitat. Other barriers preventing otters from finding or accessing the lagoon include Wand Lane and the security fence surrounding the existing coal-fired power station.

Water vole (Arvicola amphibius)

Water vole has been recorded on Selby Canal within the desk study area. The River Aire, Ings and Tetherings Drain and Hensall Dyke within the Site may support water vole.

The majority of drainage ditches within the Site are dry for a significant period of the year and are regularly managed, resulting in an absence of aquatic and marginal plant communities. These conditions are unsuitable for supporting water vole.

The lagoon within the existing coal-fired power station (Water body 1) is not suitable for water vole due to the very limited extent of marginal habitats suitable for cover and as a food resource. The banks of the lagoon are also butyl lined and unsuitable for burrowing activity.

The lagoon within the existing coal-fired power station is known to be stocked with coarse fish

and has been used for angling in the past.

The River Aire may support protected or notable fish species.

Reptiles

?

Grass snake (*Natrix natrix*) has been recorded along Selby Canal within the desk study area. No other reptile species have been recorded locally. Grass snake is a highly mobile species and is likely to make use of suitable habitat within the Site.

Water body 2 and its associated terrestrial habitat within the existing coal-fired power station are potentially suitable for grass snake. However, this habitat is relatively isolated from other suitable wetland habitats in the landscape, such as other ponds, streams and ditches.

The lagoon within the existing coal-fired power station (Water body 1) is unlikely to support grass snake as the habitats present do not provide suitable cover. Very little marginal vegetation has developed around the lagoon due to the butyl liner. Habitats on screening bunds around the lagoon comprise species poor grassland, closely grazed by rabbits, and plantation coniferous woodland.

Fish

Species	0 ~	of	able ?	u	~ ≥ u ≥ ~
	gally ecte cies	cipa cipa tanc	Nota	ent c te?	sent ntial ent i
	Leg Prot Spe	spec Prin	Spe	Sires	Presote Presotes Presoter
	ш о,	<i>O</i> <u>E</u>	₹ %	<u>α</u>	

Grass snake may use suitable habitat along the route of the Proposed Gas and Cooling Water Connections, such as drainage ditches, especially where they occur in association with features such as hedgerows and trees, and the banks of the River Aire. However, the heavily managed nature of these habitats within this arable landscape limits their value for grass snake, and any use of habitats to be affected by the Proposed Development is likely to be transitory as a consequence.

The heavily managed nature of habitats within the Site makes the presence of other reptile species unlikely, as they generally require structurally diverse semi-natural habitats that satisfy requirements for basking, foraging, refuge and hibernation.

Birds ✓ ✓ ✓ ✓

Breeding birds

Habitats suitable for breeding birds are present within the existing coal-fired power station, in particular areas of woodland and scrub. Arable fields and field margins along the routes of the Proposed Gas and Cooling Water Connections may be used by ground nesting bird species. Hedgerows within arable farmland may also be used for nesting by species such as corn bunting (*Emberiza calandra*) and yellowhammer (*Emberiza citronella*) which have been recorded in the desk study area. Habitats suitable for breeding within the Site are of limited diversity and would not reasonably be expected to support important populations of breeding birds.

A small number of common bird species were recorded on the lagoon within the existing coal-fired power station during the field survey, including a flock of mallard (*Anas platyrhynchos*), a single cormorant (*Phalacrocorax carbo*) and a single grey heron (*Ardea cinerea*). Any nesting within the lagoon will be restricted by the limited extent of marginal habitats. The lagoon may be used as a roosting site by birds.

Barn owl has been recorded in High Eggborough, 1 km to the south of the existing coal-fired power station. The intensively managed arable farmland crossed by the Proposed Gas and Cooling Water Connections provides very limited foraging / hunting opportunities for barn owl due to an absence of wide, un-managed arable field margins. There are no buildings or trees suitable for use by nesting barn owl within the Site boundary, although buildings within a farmstead adjacent to the Site (Burn Lodge Farm) are potentially suitable for nesting.

Nesting peregrine falcon (*Falco peregrinus*) has been recorded within the existing coal-fired power station; however this is outside the Site boundary.

Wintering birds

There is negligible potential for the arable farmland crossed by the Proposed Gas and Cooling Water Connections to support important assemblages of wintering and passage birds, including qualifying species of the Humber Estuary designated site located 15 km to the east of the Site. No further consideration is given to wintering birds.

Aquatic invertebrates	X	✓	✓	?	✓		
	Areas of open water that will be affected by the Proposed Development may support notable aquatic invertebrate species.						
Brown hare (<i>Lepus</i>	х	✓	х	?	✓		
europaeus)							

The arable farmland crossed by the Proposed Gas and Cooling Water Connections has the potential to support brown hare.

Species	Legally Protected Species?	Species of Principal Importance?	Other Notable Species?	Present on Site?	Present / Potentially Present in Wider Zone o	
Terrestrial invertebrates	√	✓	✓	х	х	

Numerous species of bumble bee (*Bombus* spp.) have been recorded at Brayton Barff SNCI, approximately 1 km to the north of the Site. Bumble bees are a priority species group within the Selby BAP. Bumble bees can make nests in banks of rough grassland, for example using disused burrows of small mammals and so could utilise the banks of ditches, however, there are no habitats within the Site considered to be of greater value to bumble bees, or any other protected or notable terrestrial invertebrate species, than is typical in the local farmland. The species present are likely to be common species typical of arable farmland and associated habitats.

The brownfield type associated with the emergency coal stockyard and the ballast along the rail lines/ sidings have some potential to support terrestrial invertebrate species because they support a diversity of flowering species that may attract flying insects. However, the ground is very compact in this area, and would not be expected to support a particularly diverse assemblage of terrestrial insect species because there is insufficient cover/ refuges. The habitats do not satisfy the criteria for NERC Act S41 'open mosaic habitats on previously developed land'. There are no bird's-foot trefoil communities to provide a source of food for dingy skipper butterfly, and therefore it is reasonable to assume that the habitat is unsuitable for this Selby BAP/ NERC Act S41 priority species. No further consideration is given to terrestrial invertebrates.

White-clawed crayfish (Austropotam obius pallipes)

There are no records of white-clawed crayfish in the desk study area. The species is considered unlikely to be present in the sections of the River Aire to be impacted by the Proposed Cooling

Х

unlikely to be present in the sections of the River Aire to be impacted by the Proposed Cooling Water Connections given their proximity to the tidal influence of the Humber Estuary. No further consideration is given to white-clawed crayfish.

Х

Key to symbols: \checkmark = yes, x = no, ? = possibly, 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.

<u>Legally protected species</u> are those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); and, Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2010 (as amended).

<u>Species of Principal Importance</u> 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, and non-native controlled weed species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

х

5. Identification of Potential Ecological Constraints and Recommendations

5.1 Constraints and Requirements for Further Survey: Designations

5.1.1 Statutory Nature Conservation Designations

There are no statutory nature conservation designations within or near the Site boundary that could be directly affected by the Proposed Development. The nearest statutory designation is the River Derwent SAC located 9.5 km to the east of the Site. No pathways by which the Proposed Development could potentially give rise to impacts on the River Derwent SAC have been identified, as outlined in Table 4.1, and therefore it does not require further consideration.

The following statutory designations have the potential to be indirectly impacted by the Proposed Development as they support habitats that are susceptible to the effects of nutrient nitrogen and acid deposition and are potentially within the zone of influence of air emissions from the Proposed Power Plant. An assessment of potential air quality impacts on the qualifying features of these sites is required as part of the EcIA:

- Thorne Moor SAC;
- Hatfield Moor SAC;
- Skipwith Common SAC;
- Strensall Common SAC;
- North York Moors SAC;
- Burr Closes, Selby SSSI;
- Eskhamhorn Meadows SSSI;
- Went Ings Meadows SSSI;
- Forlorn Hope Meadows SSSI; and
- Brockadale SSSI.

The Humber Estuary SAC is not considered to be susceptible to the effects of air emissions, but because of the connection of the River Aire to the Humber Estuary it is considered that an assessment of potential for impacts on water quality is required for the construction phase.

5.1.2 Non-statutory Nature Conservation Designations

No non-statutory nature conservation designations are present within or directly adjacent to the footprint of the Proposed Development.

Two non-statutory designations (Sites of Importance for Nature Conservation (SINC)) of county nature conservation value were identified within the Study Area as follows:

- Selby Canal and Towpath SINC; and
- Burn Disused Airfield SINC.

There are no screening assessment criteria for air quality impacts on non-statutory designated sites, and therefore these sites are typically not subject to air quality assessment. No other pathways by which the Proposed Development could give rise to impacts on the SINCs have been identified, and therefore they do not require further consideration.

5.2 Constraints and Requirements for Further Survey: Habitats

There are no notable or particularly diverse terrestrial habitats present within or immediately adjacent to the Site boundary that potentially represent a constraint to the Proposed Development. The information collected during the Phase 1 Habitat survey was sufficient to fully characterise the

terrestrial habitats present and no further targeted terrestrial habitat surveys are required to inform the EcIA.

The Proposed Development will directly impact aquatic habitats including the River Aire, Ings and Tetherings Drain, Hensall Dyke and the lagoon within the existing coal-fired power station. A River Corridor Survey (RCS) was undertaken on the River Aire to better understand the potential impacts on the river and subsequent requirements for mitigation. A macrophyte survey of Ings and Tetherings Drain was undertaken to gain further information on the plant community to be impacted by the Proposed Development that could not be collected during the Phase 1 Habitat survey. The survey results are presented in ES Volume III: Appendix 10F (River Corridor Survey and Aquatic Invertebrate Survey Report).

No further habitat surveys are required on the lagoon or Hensall Dyke because these habitats were fully characterised during the Phase 1 Habitat survey.

5.3 Constraints and Requirements for Further Survey: Species

5.3.1 Protected and Notable Species Scoped In

A number of protected or notable species have been identified as potentially present within the Site and may be relevant to the Proposed Development. Table 5.1 outlines the scope of targeted species surveys that are considered to be required to inform the ecological baseline for the purposes of EcIA. Targeted surveys are not considered to be required for all species potentially present within the zone of influence of the Proposed Development; rationale for scoping out further surveys is provided below the table.

Table 5.1: Scope of Further Species Surveys required to inform EcIA

Species	Survey type	Timing	Scope / Methodology
Great crested newt	eDNA	June 2016	eDNA surveys of all waterbodies identified as potentially suitable for great crested newt (Water bodies 1, 2, 6, 11, 12). The timing of project inception in June 2016 precluded the completion of presence/absence surveys using traditional methods in 2016 as a proportion of these need to be undertaken between mid-April and mid-May (English Nature, 2001). eDNA surveys can be completed between mid-May and the end of June. See Appendix 10E (ES Volume III) for survey results.
	Population size class	March to May 2017 (if required)	If any water bodies within the zone of influence of the Proposed Development are found to support great crested newt, population size class assessments may be required in spring 2017 to support a European Protected Species Mitigation (EPSM) licence application to Natural England. Six surveys to each relevant water body are required in the period March to June, with at least three surveys between mid-April and mid-May. As described in Appendix 10E (ES Volume III), no such surveys are required.
Bats	Preliminary bat roost assessment	July to August 2016	Inspection of all buildings, structures and trees to be impacted by the Proposed Development to assess their potential suitability for roosting bats and the need for any further survey work. Tree climbing may be required to inspect potential roosting features on trees that cannot be assessed from ground level. See Appendix 10D (ES Volume III) for survey results.
	Bat emergence / re- entry surveys	July to September 2016	Dusk emergence and dawn re-entry surveys of buildings, structures and trees identified as having potential roosting features during the preliminary bat roost assessment. The scope of surveys required will depend on the level of suitability identified during the preliminary roost assessment. As described in Appendix 10D (ES Volume III), no such surveys are required.
	Bat activity surveys	July to September 2016	Habitats within the existing coal-fired power station to be affected by the Proposed Development have moderate suitability for foraging / commuting bats. In accordance with best practice guidance (Collins, 2016), the following surveys are required between July and September 2016 to characterise the use of habitats by bats: • one walked transect per month; and • minimum of five days of automated bat monitoring per month using two automated detectors (SM2s). Bat activity surveys within habitats outside the existing coal-fired power station are not considered necessary, as justified in the Protected and Notable Species Scoped Out section below.
			See Appendix 10D (ES Volume III) for survey results.
Badger	Badger survey	November to December 2016	Survey of all suitable habitat within the field survey area that was not thoroughly inspected as part of the Phase 1 Habitat survey (e.g. larger areas of woodland) for signs of badger activity. See Appendix 10D (ES Volume III) for survey results.
Otter and water vole	Otter and water vole survey	August to October 2016 and May 2017	Survey of the River Aire, Ings and Tetherings Drain and Hensall Dyke for signs of otter and water vole. See Appendix 10D (ES Volume III) for survey results.

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AECOM

Fish	Fish survey	October to November 2016	Fish surveys of the River Aire (existing cooling water abstraction and discharge points) and the lagoon (Water body 1). See Appendix 10G (ES Volume III) for survey results.
Aquatic invertebrates		October to November 2016	Aquatic invertebrate survey of suitable aquatic habitat, including the River Aire (existing cooling water abstraction and discharge points), Ings and Tetherings Drain and the Iagoon (Water body 1), to determine the presence of any protected or notable invertebrate species. See Appendix 10F (ES Volume III) for survey results.

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AECOM

5.3.2 Protected and Notable Species Scoped Out

The rationale for scoping out further surveys for species potentially relevant to the Proposed Development is provided below.

Reptile Survey

Habitats within the Site are only potentially suitable for one species of reptile, grass snake (see Table 4.6). This species is usually associated with wetland habitats which provide access to basking sites and plenty of cover. Within the existing coal-fired power station, the only potentially suitable habitat is the pond to the east of the cooling towers (Water body 2) and its associated terrestrial habitats. These will be fully retained within the Proposed Development and therefore because there will be no impacts even if grass snake is present, no further reptile survey is required in this area.

Grass snake may be present in association with drainage ditch and river bank habitats that will be crossed by the Proposed Gas and Cooling Water Connections. However, the value of these habitats is limited by the intensive management regimes in place within this arable farmland, and any presence of grass snake is likely to be transitory as a result. Furthermore, impacts on potentially suitable habitat along watercourses will be limited in extent and will be temporary in nature, with all habitats being re-instated following construction. In view of the above factors, there is negligible risk of affecting the favourable conservation status of the species locally and the risk of killing / injury can be adequately mitigated through application of precautionary working methods during construction. These are set out in Chapter 10: Ecology and Nature Conservation of the ES Volume I. Therefore, no further targeted survey for grass snake is required to allow robust precautionary mitigation to be prescribed.

Breeding birds

Arable farmland crossed by the Proposed Gas Connection is likely to support ground nesting birds. However, targeted survey for breeding birds is not considered necessary given the temporary nature of the works associated with the Proposed Development on habitats that may support ground nesting birds. The habitat affected will be returned to arable farmland within a year, and therefore any impacts would be unlikely to significantly affect local breeding populations. Breeding activity is naturally influenced by changes in farming regime and thus must be resilient to changes in local baseline nesting availability. Mitigation will be required to ensure compliance with the Wildlife and Countryside Act 1981 (as amended).

The layout of the Proposed Development has been designed to minimise impacts on the existing woodland within the existing coal-fired power station, and therefore breeding bird surveys were not considered necessary, as described in the EIA Scoping Report (see Appendix 1A of ES Volume III). However as the Proposed Construction Laydown area will require the loss of the lagoon and surrounding plantation woodland, mitigation will be required to ensure compliance with the Wildlife and Countryside Act 1981 (as amended), and compensation will be necessary to ensure no net loss of wild bird habitat for compliance with NPPF and wildlife legislation. The woodland is fairly homogenous and is unlikely to support any rare or notable breeding species. On this basis, breeding bird surveys are not considered necessary, given the limited potential for effects on the status of local breeding bird populations. Permanent habitat losses are limited and restricted to non-native semimature landscape plantings. The potential consequences of the Proposed Development for breeding birds are limited, and notable assemblages are unlikely to be encountered, and are likely to be of value at the level of the Site only. Management of potential impacts on breeding birds relate to requirements to deliver legislative compliance and not the mitigation or compensation ensure no impact on nature conservation status, as this would be unlikely to change as a consequence of the Proposed Development.

There is no suitable habitat within the existing coal-fired power station for foraging barn owl, although the grassland associated with the golf course immediately to the west may offer some foraging habitat. Arable farmland within the Proposed Gas Connection area may provide foraging habitat for barn owl, but would only be temporarily affected by the Proposed Development. A specific barn owl survey is therefore not considered necessary.

Wintering / Passage Birds

There is negligible potential for the arable farmland crossed by the Proposed Gas and Cooling Water Connections to support important assemblages of wintering and passage birds, including qualifying species of the Humber Estuary designated site. Furthermore, the extent of arable land to be impacted during construction is very limited when considered in the context of the surrounding arable landscape, and the vast majority of land impacted will be fully restored upon completion of construction. As a result, there is no reasonable likelihood of impacts to wintering and passage birds and therefore no further surveys are required.

Bats

No bat activity surveys are considered necessary within land to be crossed by the Proposed Gas and Cooling Water Connections as there is a low likelihood of adverse effects on bats in these areas. As discussed in Table 4.6, bat activity is likely to be limited to low level use of boundary features, such as hedgerows and trees, which are only locally present in this arable landscape. The Proposed Gas Connection will cross two hedgerows, both of which are species poor and defunct. The Proposed Cooling Water Connections may impact on a line of trees associated with a dry ditch. All of these boundary features are fragmented and are unlikely to be used as commuting routes by bats. Furthermore, impacts will be minimised during construction, for example by routing the working corridor through existing gaps in hedgerows.

The River Aire and Ings and Tetherings Drain may also be used, but the value of these habitats within the Site boundary is limited by an absence of bankside trees and scrub. Construction work impacting these watercourses is very unlikely to affect their usage by bats, particularly as the majority of works will be completed in daylight hours. In view of the above, the low risk of impact on foraging / commuting bats as a result of proposed works within arable farmland does not warrant the completion of bat activity surveys in these areas.

Brown Hare

Brown hare may be present within arable farmland to be crossed by the Proposed Gas and Cooling Water Connections. However, temporary impacts during the construction period can be adequately mitigated through the use of precautionary working methods, and there will be no permanent impact on suitable habitat as the vast majority will be restored following construction. On this basis, no further survey for brown hare is required.

Terrestrial Invertebrates

No habitats that could support rare or notable species of terrestrial invertebrate were identified in the field study area, and therefore no further surveys are considered necessary.

Dingy skipper butterfly (*Erynnis tages*) is listed as a Selby BAP species and is a NERC Act S41 priority species. There is only one recorded population in Selby District at Bolton Percy old railway station yard (Selby District Council, 2004), which is approximately 17 km north-west of the existing coal-fired power station. The open mosaic habitat associated with the emergency coal stockyard on the Site provides sub-optimal habitat for dingy skipper because the habitat does not support its favoured food plants (bird's-foot trefoil). It is therefore reasonable to assume, given the rarity of this species in the district, that there is negligible potential for this species to be present on Site. A full suite of terrestrial invertebrate surveys is therefore not considered proportionate to the impacts of the Proposed Development, because they are unlikely to record any rare or notable invertebrate species.

Aquatic Invertebrates (Hensall Dyke)

Hensall Dyke was not considered to provide suitable habitat for any rare or notable aquatic invertebrate species due to the general absence of macrophytes and heavily shaded and shallow nature of the drain. No further aquatic invertebrate surveys of this watercourse were deemed necessary.

6. References

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Annex A: Legislation and Planning Policy

Council Directive 79/409/EEC on the conservation of wild birds (the EC Birds Directive)

Annex 1 of the EC Birds Directive lists rare and vulnerable species of regularly occurring or migratory wild birds that are subject to special conservation measures. The Directive also provides for the designation of Special Protected Areas (SPAs) for the protection of these species, which form part of the Natura 2000 network of sites protected by European wildlife legislation. Given the habitats present within the survey area, and the fact that there are no SPA or Ramsar sites within 10 km of the Site, it is reasonable to assume that the Site will not support such notable populations of rare and vulnerable bird species.

The Conservation of Habitats & Species Regulations 2010 (as amended)

The 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 30 October 1994. 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 (Natural England). 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.

The WCA requires the prosecuting authority to prove that an offence was intentional, however the Countryside and Rights of Way (CROW) Act 2000 (see below) strengthens the provisions of the WCA by introducing an additional offence of "reckless" disturbance, which means that ignorance of the presence of a protected species cannot be used as a reliable defence should a breach of the WCA be committed. The Natural Environment and Rural Communities (NERC) Act 2006 (see below) strengthens the WCA further with respect to the protection of the nests of certain birds listed on Schedule Z1A, even when they are not in use. The NERC Act also offers additional protection to birds released into the wild as part of a repopulation programme and provides minor amendments to the WCA with respect to captive birds.

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 SSSI provisions of the Wildlife and Countryside Act 1981, including provisions to change SSSIs and providing increased powers for their protection and management. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs; increases penalties on conviction where the provisions are breached; and introduce a new offence whereby third parties can be convicted for damaging SSSIs. To ensure compliance with the Human Rights Act 1998, appeal processes are introduced with regards to the notification, management and protection of 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', create a new 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 Oct 2006. Section 41 (S41) of the Act requires 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 has been 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, including 49 species of bird. 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 Badgers Act 1992

Badgers and their setts (burrows) are protected under the Act. This makes it an offence to kill or take a badger, to cruelly ill-treat a badger, or to interfere with a badger sett, including disturbing a badger while it is occupying a sett.

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 badger sett 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 badger sett 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 badger(s) 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.

The Hedgerow Regulations 1997

The intention of the Act is to protect important countryside hedges from destruction or damage. The Act does not apply where planning permission has been granted. There are various other exemptions under the Act, including:

- to make a new opening in substitution for an existing one that gives access to land. For example, a gate. However, the old opening must be filled in within 8 months;
- to obtain access to land where other means are not available or are only available at disproportionate cost;
- for the proper management of the hedgerow. This means real management, such as coppicing. But if the hedgerow is deliberately 'over-managed' this might qualify as removal.

If the proposed works are not exempt or subject to a current planning permission then the landowner must serve a Hedgerow Removal Notice in writing on their local planning authority. The authority then has 42 days (which period can be extended if the applicant agrees) to determine whether or not the hedge is considered 'important' under the regulations, and if so, whether or not to issue a Hedgerow Retention Notice. The local authority does not have to issue a Retention Notice, even if the hedgerow counts as important. If they do not issue a notice for an important hedge this is often on condition that certain things are done, e.g. reinstatement or replanting to a certain standard, or creation of an equivalent boundary elsewhere.

National Planning Policy Framework

The NPPF came into being in March 2012, relevant sections are as follows:

Section 11 of the NPPF relates specifically to "Conserving and Enhancing the Natural Environment". Paragraph 109 states that "The planning system should contribute and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- 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, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."

Paragraph 113 states that "Local Planning Authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks". Referenced here is ODPM Circular 06/2005, which provides further guidance re the hierarchical approach and the Circular remains extant in its entirety within the NPPF.

Paragraph 118 states that "When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused
- proposed development on land within or outside a Site of Special Scientific Interest likely to have
 an adverse effect on a Site of Special Scientific Interest (either individually or in combination with
 other developments) should not normally be permitted. Where an adverse effect on the site's
 notified special interest is likely, an exception should only be made where the benefits of the
 development, at this site, clearly outweigh both the impacts that it is likely to have on the features
 of the site that make it of special scientific interest and any broader impacts on the national
 network of Sites of Special Scientific Interest;
- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;
- opportunities to incorporate biodiversity in and around developments should be encouraged;
- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and
- the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas and possible Special Areas of Conservation; listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."

Paragraph 119 states "The presumption in favour of sustainable development (paragraph 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directive is being considered, planned or determined."

Biodiversity Action Plans

In July 2012 the UK Post-2010 Biodiversity Framework was published. This covers the period 2011 - 2020 and forms the UK Government's response to the UN Convention on Biological Diversity held in Nagoya in 2010. This contained five strategic goals ("Aichi" Goals). The Framework recognised that the Biodiversity Action Plan should now be delivered through strategies for each of the four countries comprising the United Kingdom and Northern Ireland. In England, this is embodied in "Biodiversity 2020, A strategy for England's wildlife and ecosystem services". These country strategies replace the UK Biodiversity Action Plan (BAP).

Selby Biodiversity Action Plan

The Selby Biodiversity Action Plan (BAP) is a nature conservation strategy identifying threats to habitats and species within the county and setting out the actions necessary to conserve them. Although now somewhat out of date, the BAP is a useful tool for determining threatened/ uncommon habitats and species within the district. The BAP confers no particular legislative or policy protection to the habitats and species identified, but they are listed as priorities for conservation and enhancement.

Table A1: Screening of Relevant Selby BAP Habitats and Species

Habitat or Species Action

Plan

Potentially Relevant to Proposed Development? Comments

	evelopilient	
Habitat Action Plans		
Woodland	✓	Blocks of plantation woodland are present around the existing coal-fired power station.
Lowland wood pasture and parkland	x	Not present
Ancient and/or species-rich hedgerows	x	Hedgerows present are not ancient or species-rich.
Arable farmland	✓	Proposed Gas Connection and Proposed Cooling Water Connections cross arable farmland north of the existing coal-fired power station.
Grazing marsh	×	Not present
Unimproved grassland	×	Not present
Lowland heathland	×	Not present
Fens	×	Not present
Reedbed	×	Not present
Lakes and Ponds	✓	A water storage reservoir (lagoon) within the existing coal- fired power station will be removed, though this does not meet priority habitat criteria.
Canal	x	Not present
Rivers, streams and ditches	√	River Aire and two wet ditches (Ings and Tetherings Drain and Hensall Dyke) will be affected by construction works associated with the Proposed Gas Connection, Proposed Cooling Water Connections and Proposed Surface Water Drainage Connection.
Towns and villages	✓	Ephemeral/ short perennial habitats around the coal stockyards within existing coal-fired power station represents 'brownfield habitat' that is included within this habitat action plan.
Species Action Plans		
Otter	√	Signs of activity found along Ings and Tethering Drain. The River Aire and Hensall Dyke also provide potentially suitable habitat.
Water vole	✓	River Aire, Ings and Tetherings Drain and Hensall Dyke provide potentially suitable habitat.
Great crested newt	✓	Presence confirmed through eDNA sampling in the northern part of the Study Area near Selby Canal.
Tansy beetle	×	No suitable habitat present in the Study Area for this species.
Dingy skipper	×	No suitable habitat present in the Study Area for this species.
Pillwort	×	No suitable habitat present in the Study Area for this species.
Cylindrical whorl snail	x	No suitable habitat present in the Study Area for this

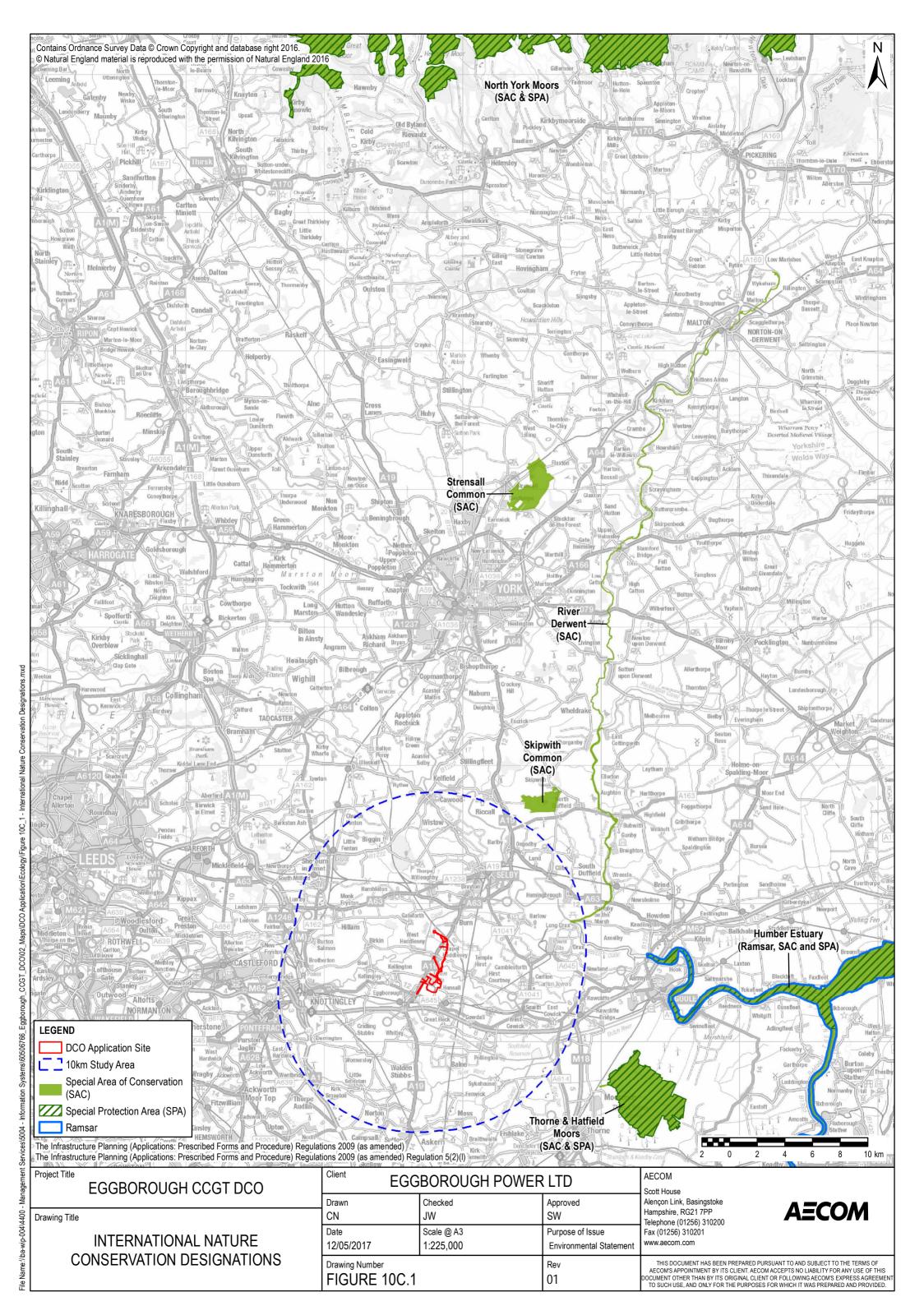
Habitat or Species Action Plan

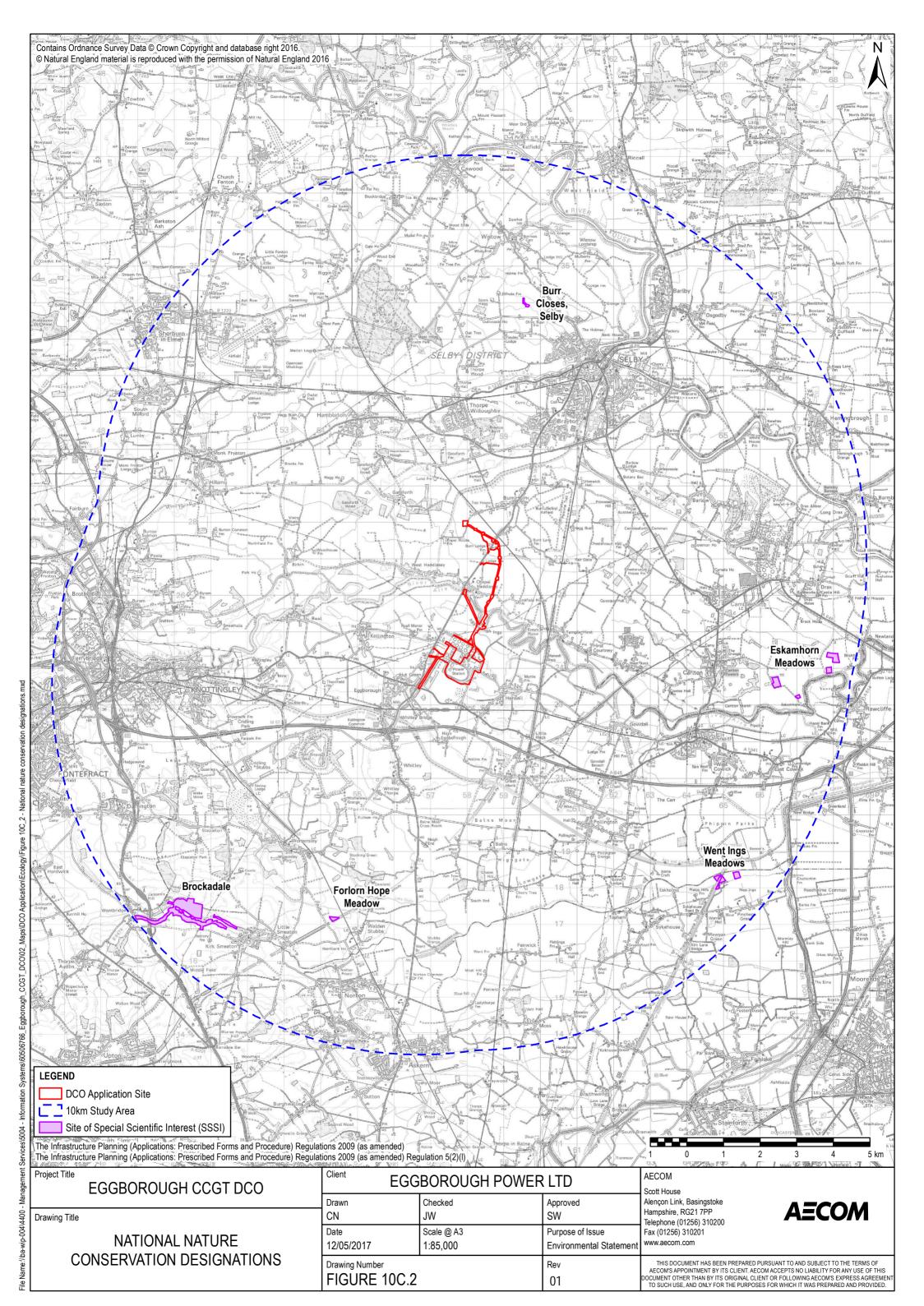
Potentially Relevant to Proposed Development?

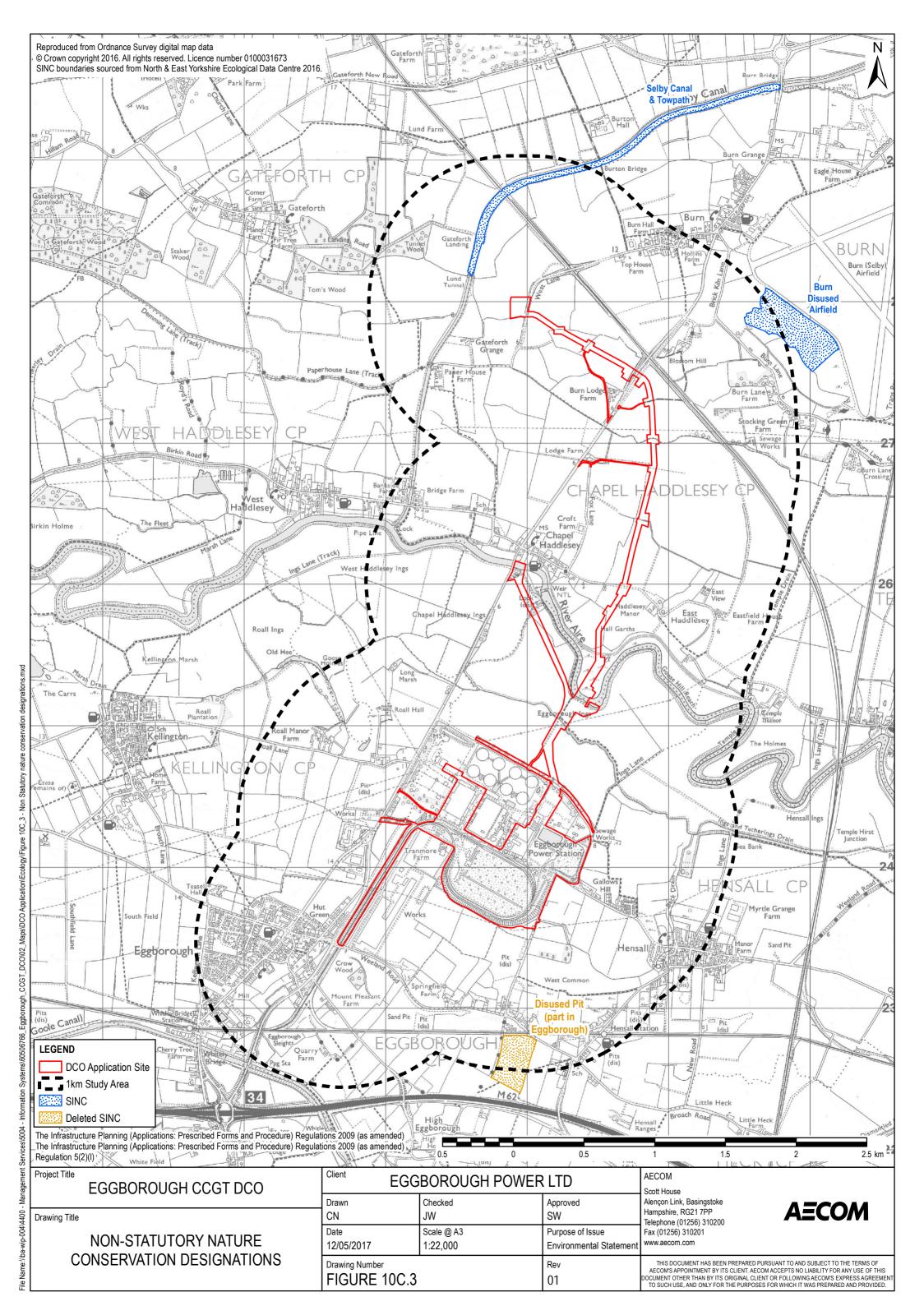
Comments

	Development?	
		species.
Aquatic beetle <i>Agabus</i> uliginosus	×	No suitable habitat present in the Study Area for this species.
Bats	√	Bats recorded foraging in association with habitats around the existing coal-fired power station.
Bumble bee	×	Habitats present in Study Area unlikely to be of high value to bumblebees
Clearwing moths	×	Habitats present in Study Area unlikely to be of high value to clearwing moths.
Rare moths	x	Habitats present are unlikely to be of high value to rare moths.

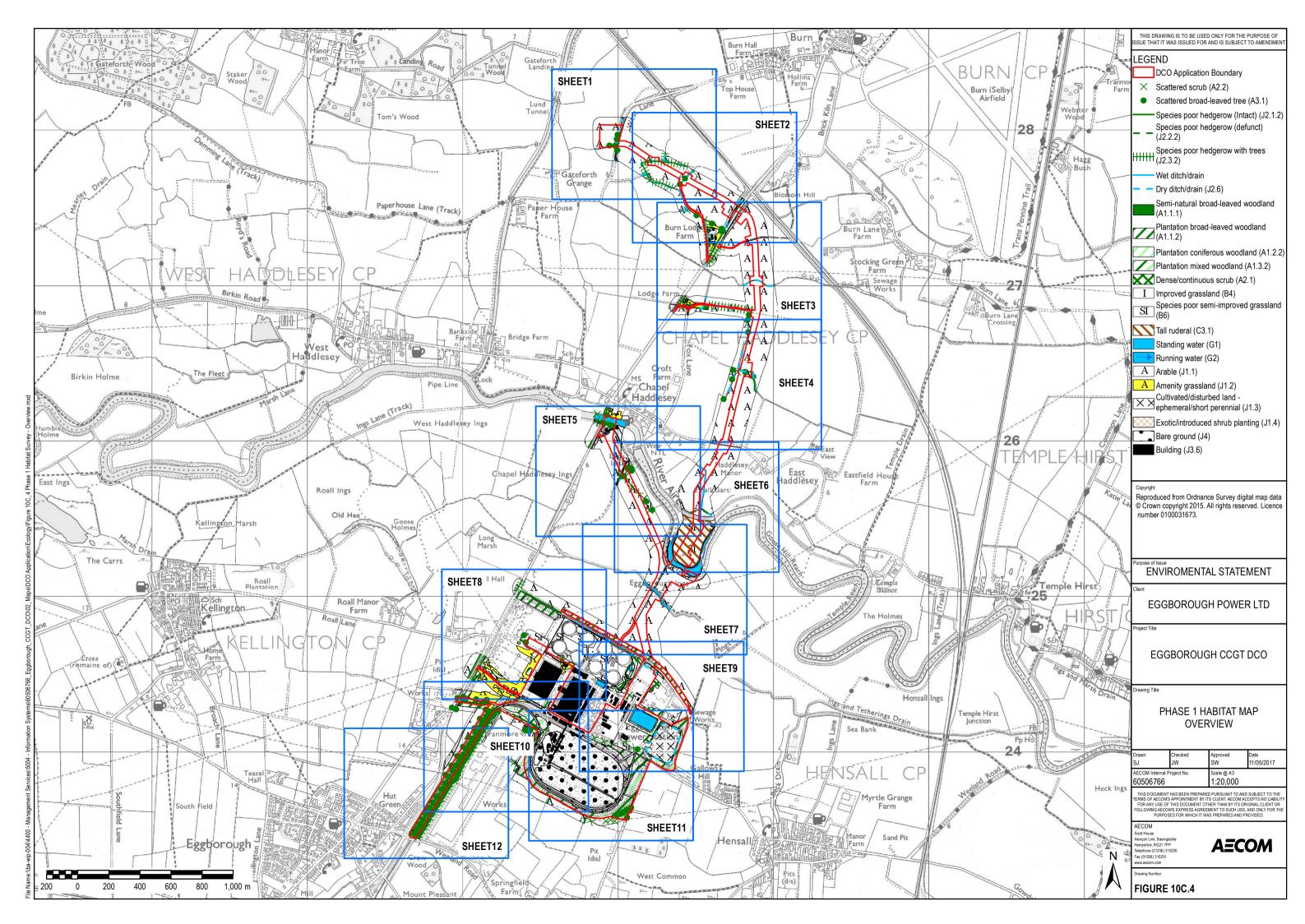
Annex B: Nature Conservation Designations



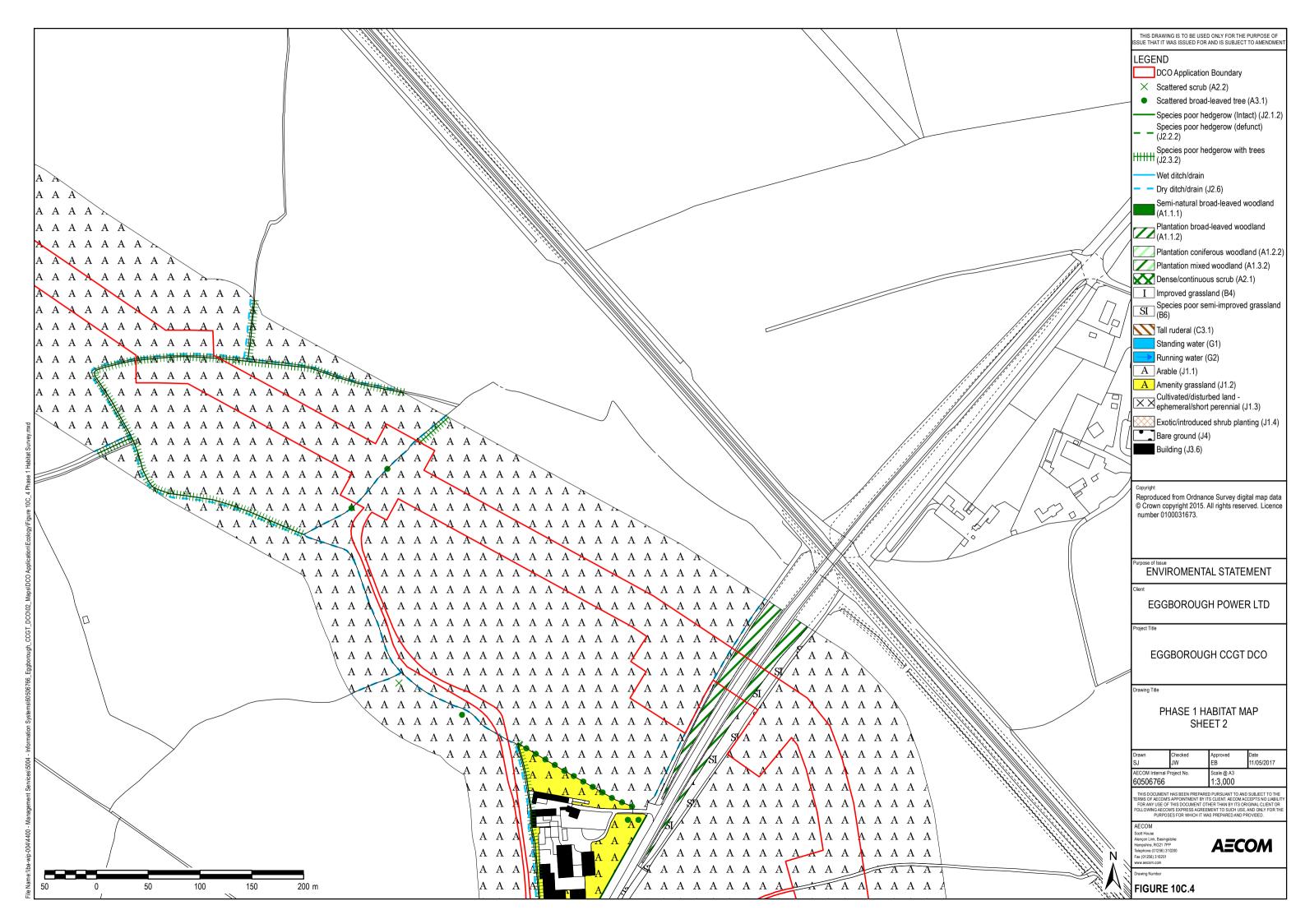


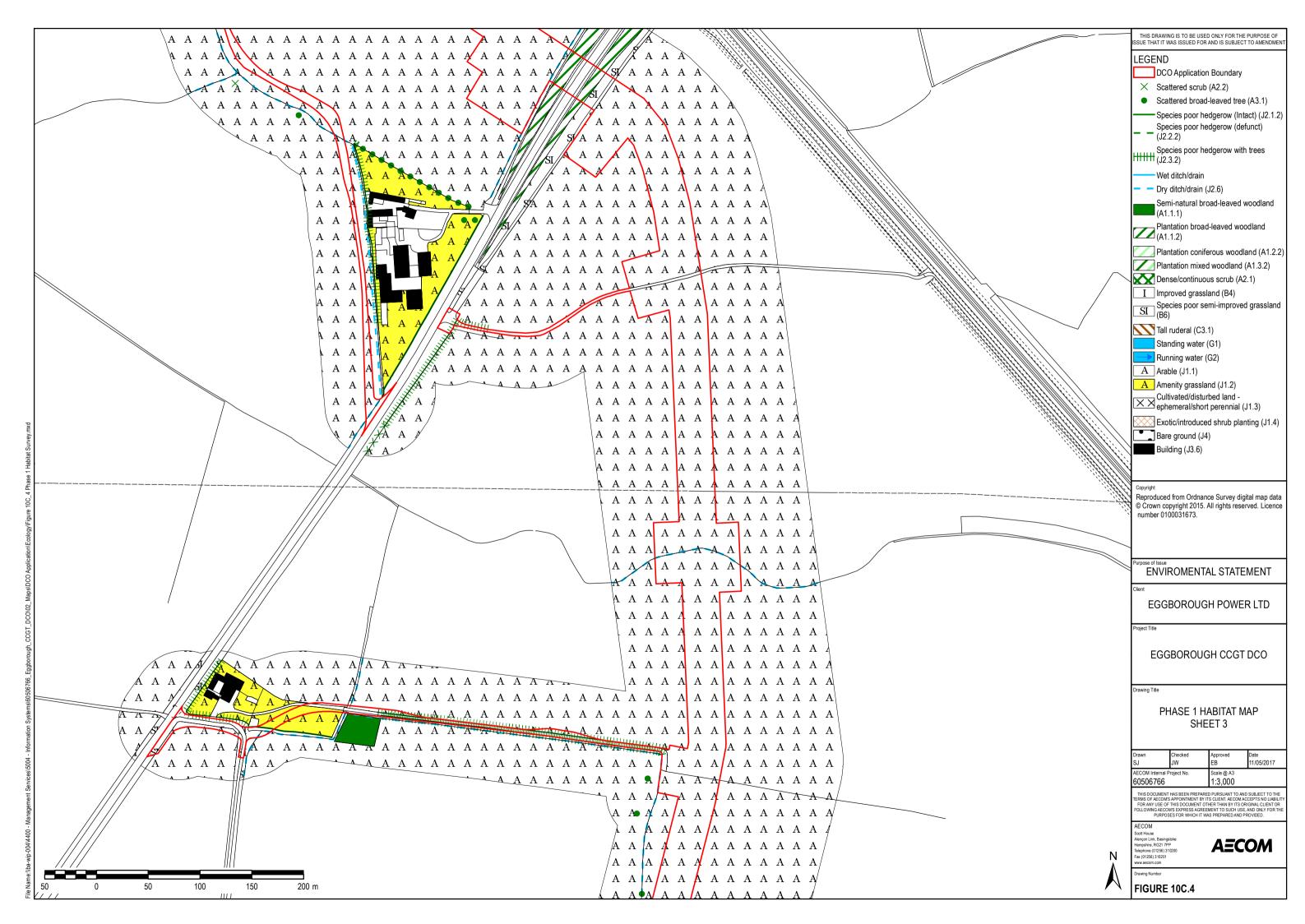


Annex C: Phase 1 Habitat Plans

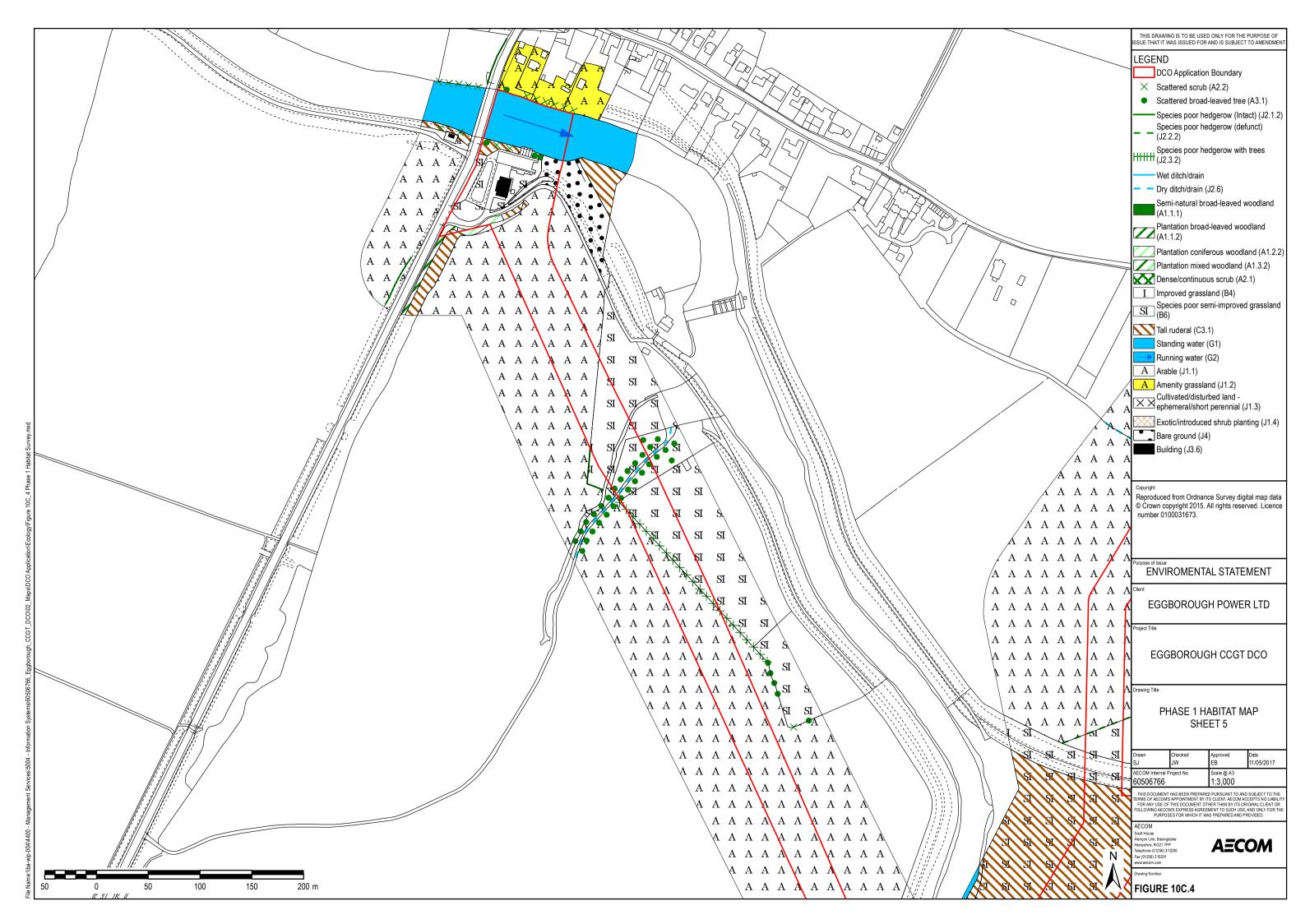


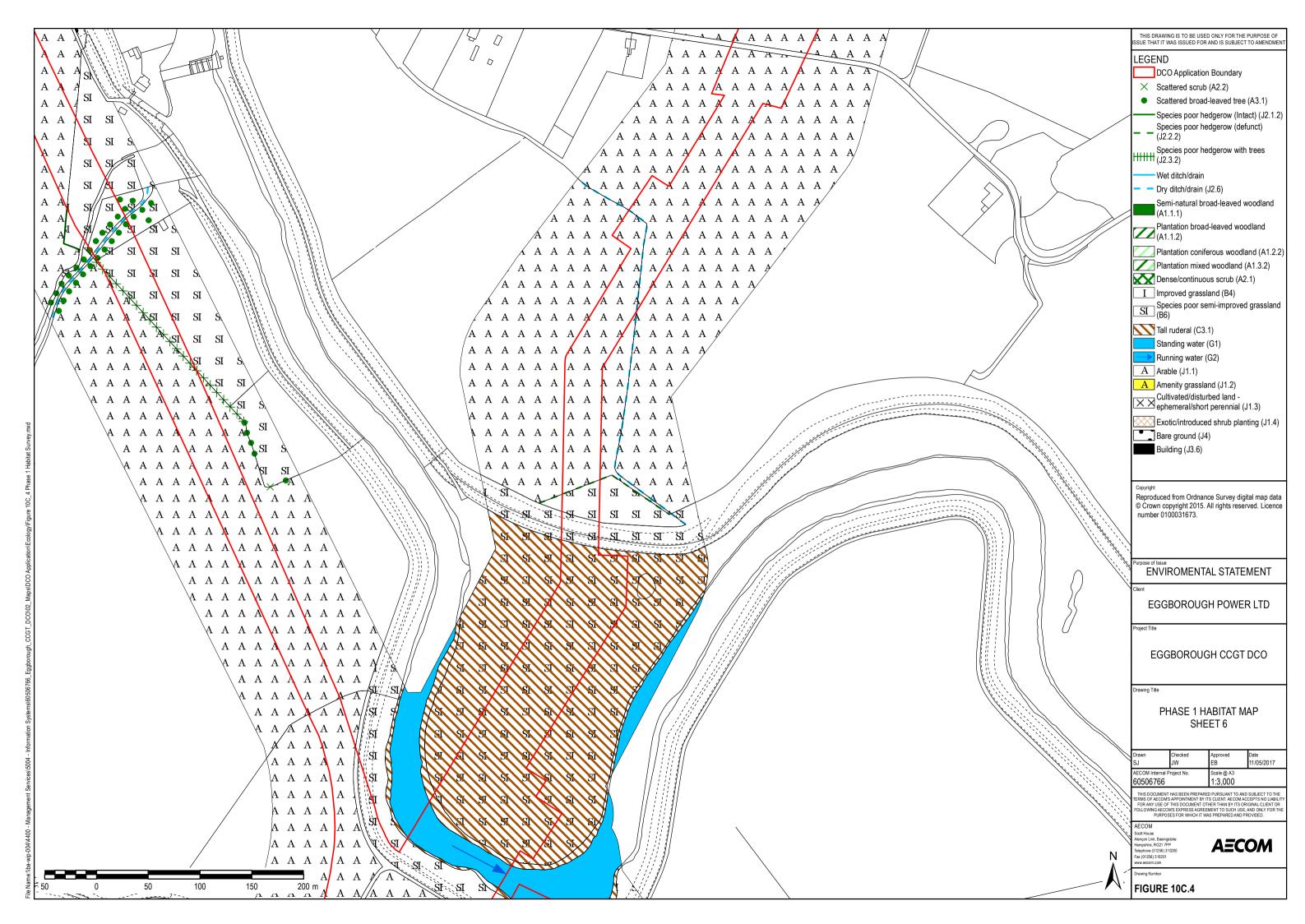


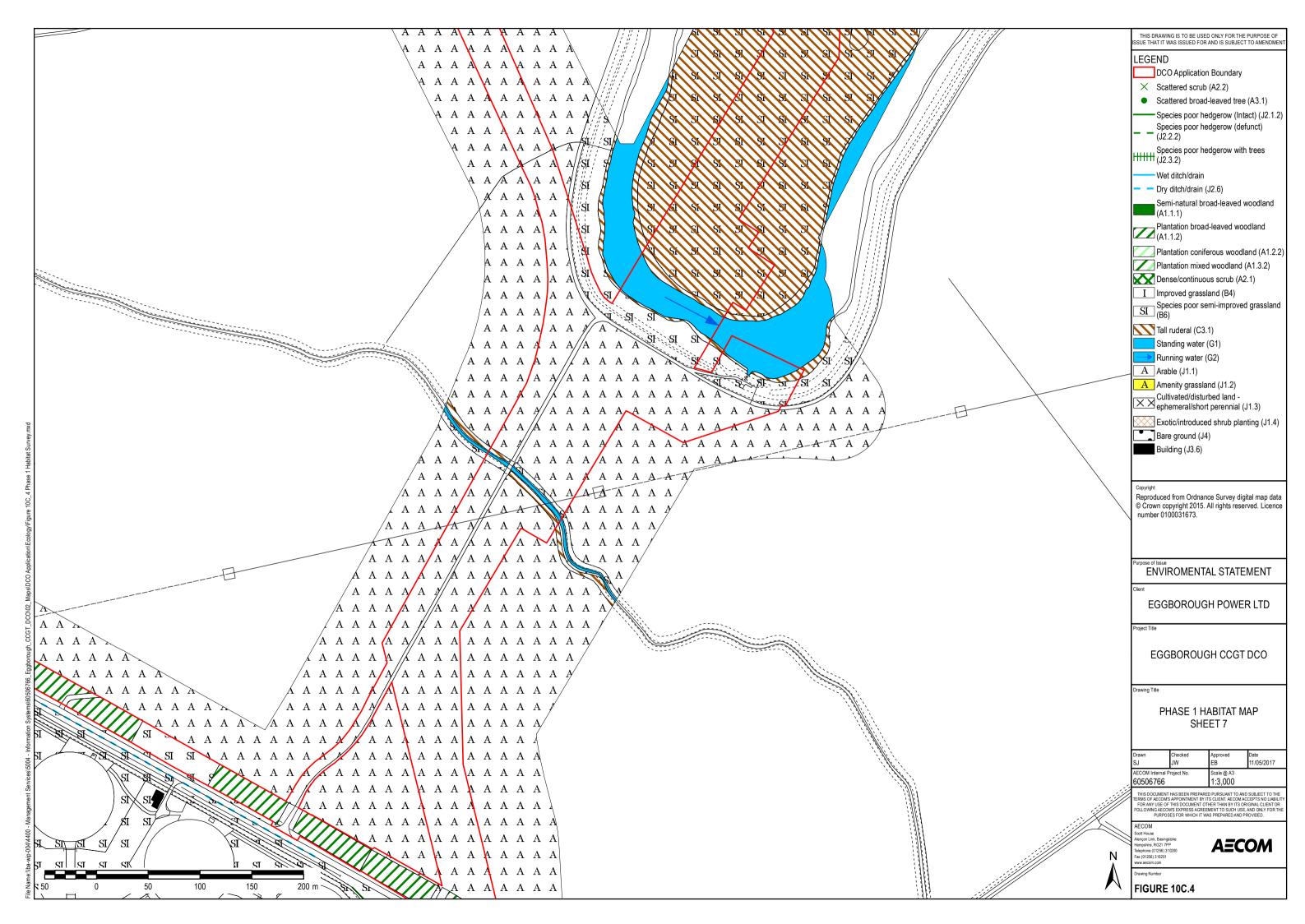


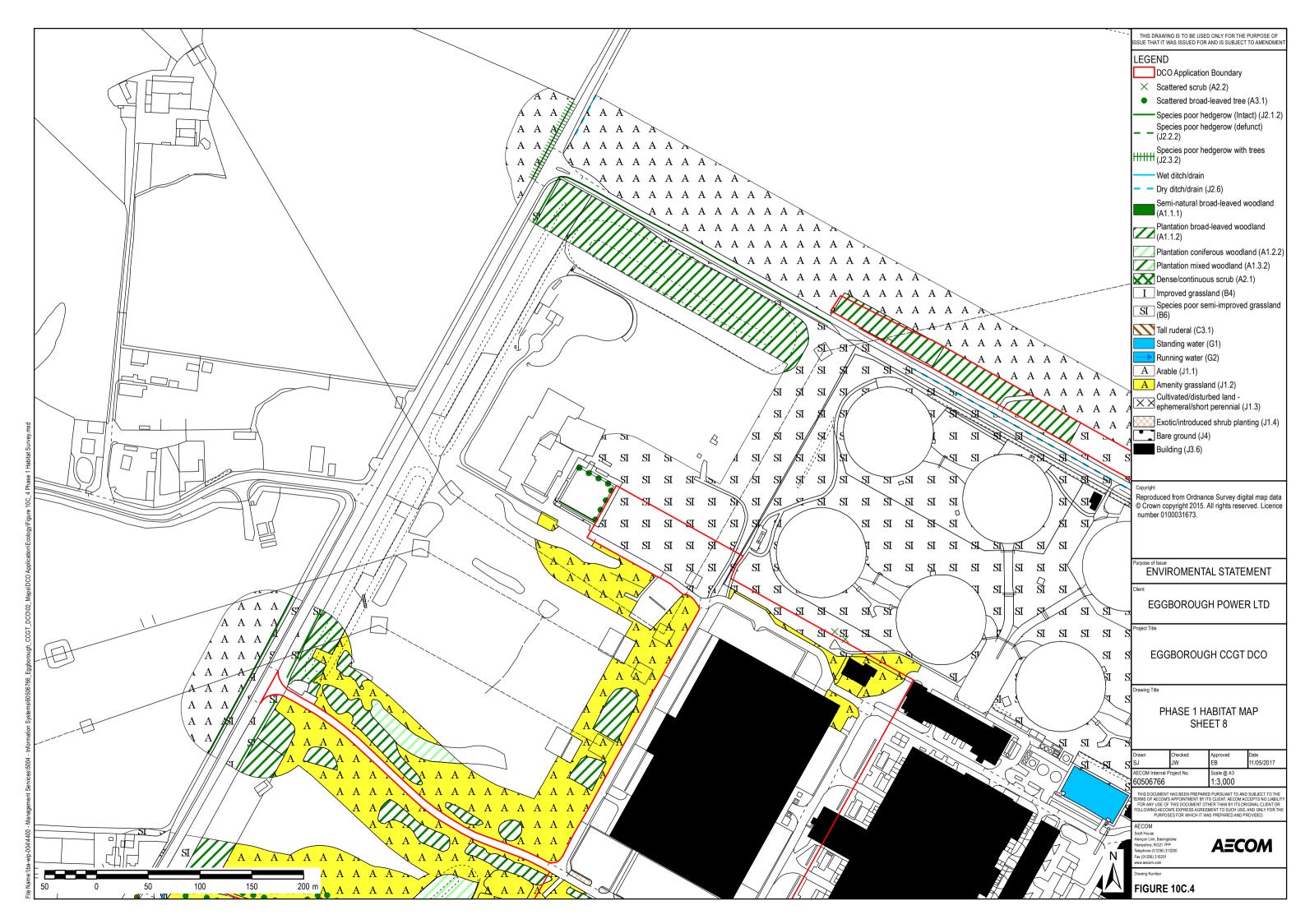


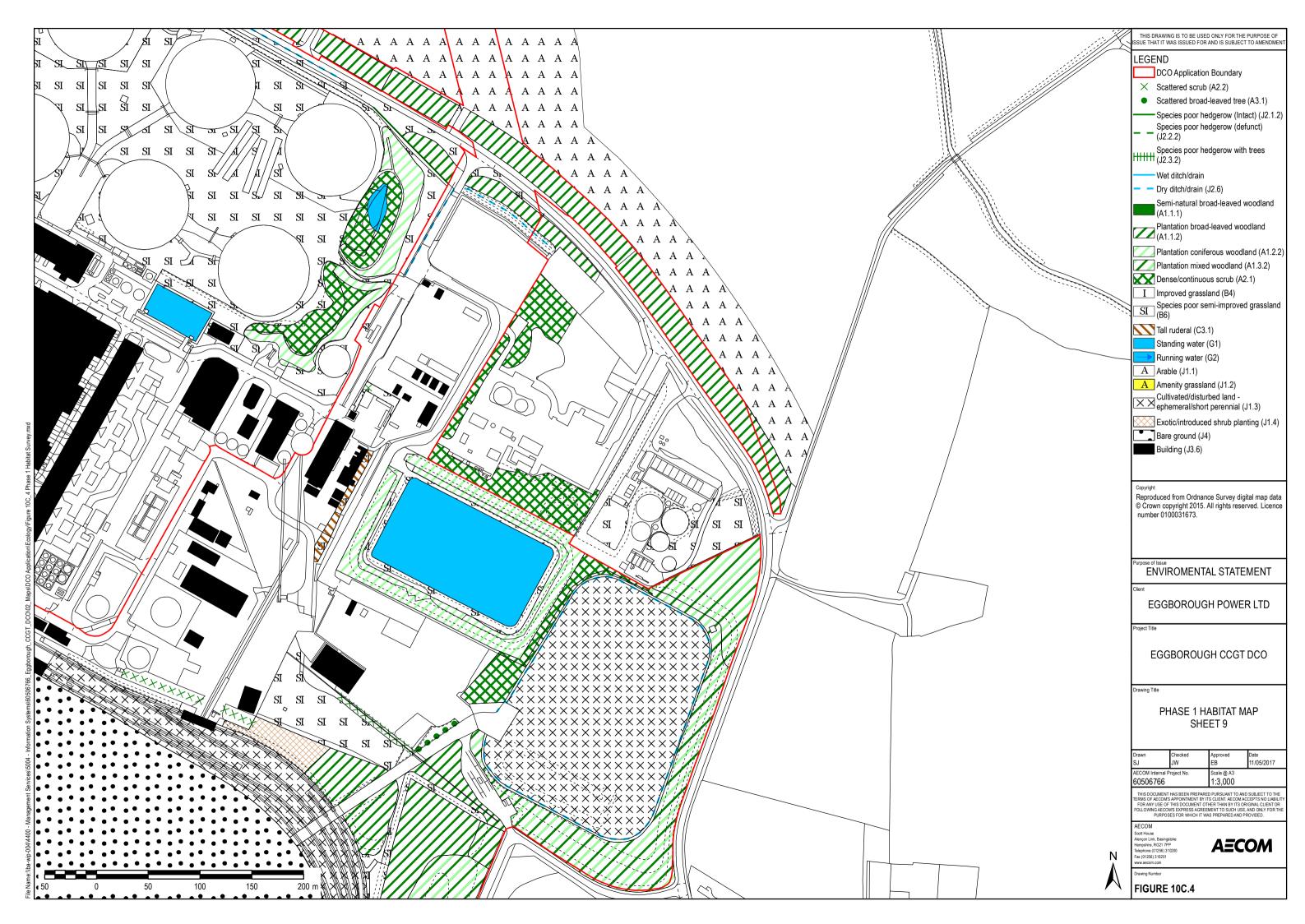




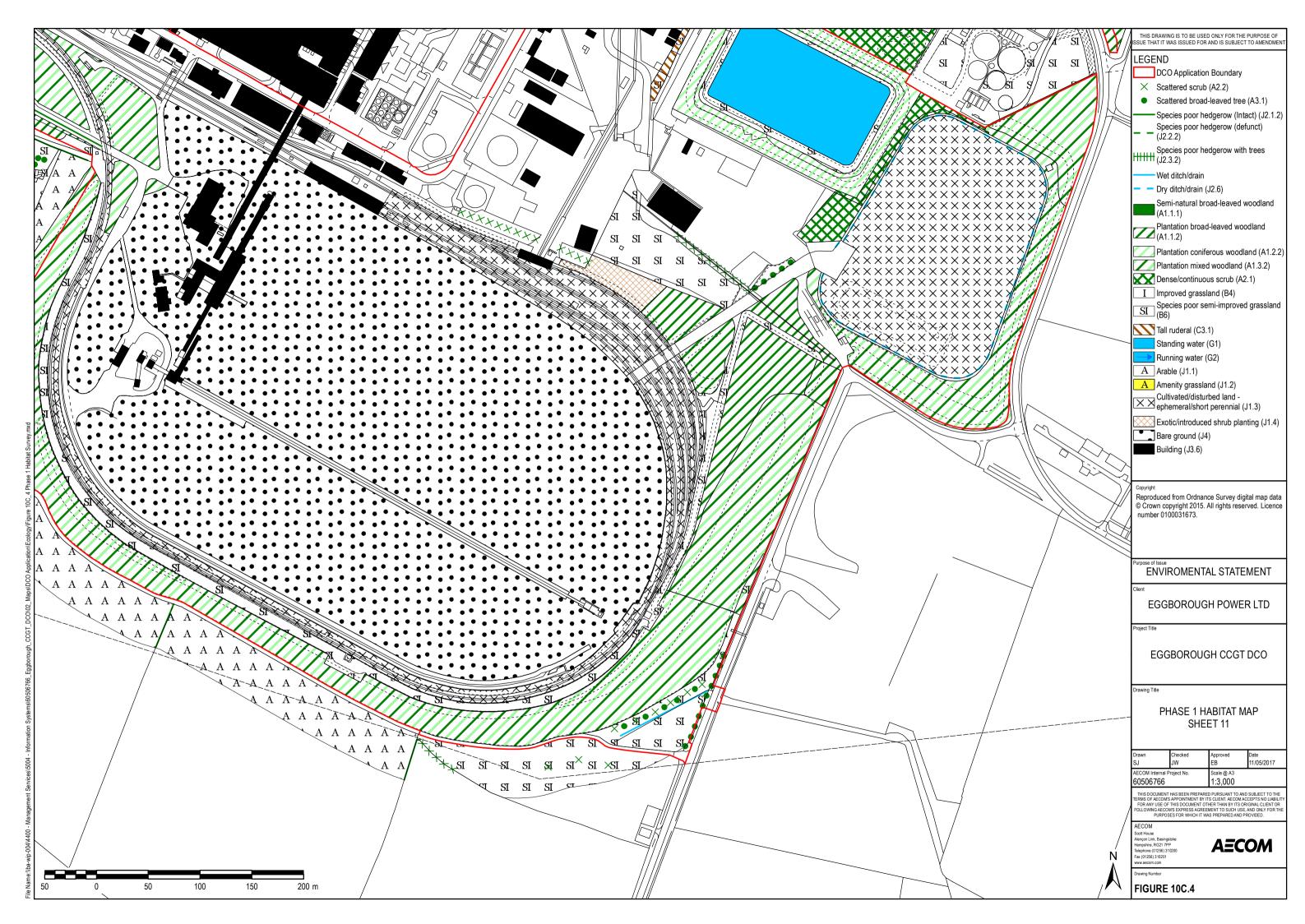














Annex D: Photographs

Photograph 1: Mature plantation woodland surrounding lagoon (Water body 1) within existing coal-fired power station



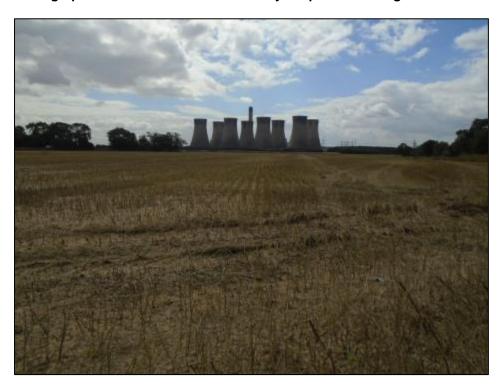
Photograph 2: Coal stockyard surrounded by screening plantation woodland



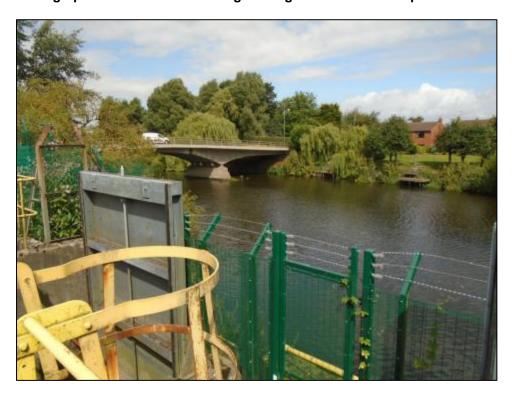
Photograph 3: Typical arable farmland crossed by Proposed Gas Connection



Photograph 4: Arable farmland crossed by Proposed Cooling Water Connections



Photograph 5: River Aire at existing cooling water abstraction point



Photograph 6: River Aire at existing cooling water discharge point



Photograph 7: Ings and Tetherings Drain to the north of the existing coal-fired power station



Photograph 8: Defunct species poor hedgerow to be crossed by the Proposed Gas Connection



Photograph 9: Ephemeral/ short perennial communities developing on emergency coal stockyard (disused) in eastern part of existing coal-fired power station site (plantation to the eastern boundary in the background)



Photograph 10: Typical dry ditch along arable field boundary crossed by the Proposed Gas Connection



Photograph 11: Amenity grassland and plantation woodland along main entrance to existing coal-fired power station



Photograph 12: Rail sidings and colonising tall ruderals and ephemeral/ tall perennial communities to the south-west of the existing coal-fired power station



Photograph 13: Infrastructure and buildings within existing coal-fired power station



Photograph 14: Hensall Dyke

