



ENVIRONMENTAL STATEMENT – VOLUME 3 – APPENDIX 8.12

Breeding Bird Survey Report - Repower

Drax Bioenergy with Carbon Capture and Storage

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

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CONFIDENTIAL

The Drax Power (Generating Stations) Order

Land at, and in the vicinity of, Drax Power Station, near Selby, North Yorkshire

Supplemental Environmental Information - Breeding Bird Survey

(Submitted for Deadline 1)



The Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009 – Regulation 5(2)(a)

Drax Power Limited

Drax Repower Project

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Glossary

| Term | Definition |
|---|--|
| Above Ground Installation (AGI) | <p>The Minimum Offtake Connection (MOC) which will be operated by National Grid Gas and the PIG Trap Launching station (PTF-L) which will be operated by Drax.</p> <p>The AGI is described as Work No. 6 in Schedule 1 of the draft DCO submitted with the DCO Application</p> |
| Baseline | A reference level of existing environmental conditions against which a project is measured and controlled. |
| Biodiversity | Abbreviated form of 'biological diversity' referring to variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. |
| Biodiversity Action Plan (BAP) | Plans which set specific, measurable, achievable, realistic and time bound conservation targets for species and habitats. The UK BAP is the UK Government's response to the Convention on Biological Diversity (CBD) signed in 1992. More information is available at www.ukbap.org.uk |
| Birds Directive | Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version). |
| Breeding Bird Survey | The main scheme coordinated by the BTO/JNCC/RSPB for monitoring the population changes of the UK's common breeding birds. Commonly used in commercial ecological consultancy to survey for birds. |
| Chartered Institute of Ecology and Environmental Management (CIEEM) | The professional membership body representing and supporting Ecologists and Environmental professionals in the UK, Ireland and abroad. Previously known as Institute of Ecology and Environmental Management (IEEM). |
| DCO Application | The application for a DCO in respect of the Proposed Scheme. |
| Development Consent Order (DCO) | A Development Consent Order (DCO) is made by the Secretary of State (SoS) pursuant to the Planning Act 2008 (PA 2008) to authorise a Nationally Significant Infrastructure Project (NSIP). |
| Development Parcel | Development areas A to K as per the Proposed Scheme |
| Drax Power Station | The existing biomass and coal fired power generation facility at the Existing Drax Power Station Complex. |
| Ecological Impact Assessment (EclA) | A recommended procedure for the ecological component of Environmental Impact Assessment. |

| Term | Definition |
|---------------------------------------|--|
| Effect | The consequence of an impact on the environment |
| Environmental Statement | A statement that includes the information that is reasonably required to assess the environmental effects of a development and which the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile, but that includes at least the information required in the EIA Regulations 2017 and which is prepared in accordance with the latest Scoping Opinion adopted by the Secretary of State (where relevant). |
| European Protected Species (EPS) | European Protected Species are animals and plants that receive protection under the Conservation of Habitats and Species Regulations 2017, in addition to the Wildlife and Countryside Act 1981 (as amended). |
| Existing Drax Power Station Complex | The facilities comprising the existing Drax Power Station, and the land upon which it is situated. |
| Gas Pipeline | <p>The approximately 3 km underground pipeline which connects the Gas Receiving Facility to the National Transmission System.</p> <p>The Gas Pipeline is described as Work No. 7 in Schedule 1 of the draft DCO submitted with the DCO Application.</p> |
| Gas Receiving Facility (GRF) | This is required to receive the natural gas from the Gas Pipeline. The GRF is described as Work No. 5 in Schedule 1 of the draft DCO submitted with the DCO Application. |
| Gas Turbine | Gas turbines produce electricity. Air is drawn into the compressor of the gas turbine and is compressed. The fuel is then injected into the combustion chamber. The mixture of fuel and compressed air is ignited, producing gases at high temperatures. As the gas expands, it rotates the turbine to produce electricity. |
| Generating Station Equipment | Equipment comprising electricity generating stations, battery storage facilities and gas insulated switchgear buildings. The Generating station equipment is described as Work Nos. 1, 2, 3 and 4 in Schedule 1 of the draft DCO submitted with the DCO Application. |
| Habitat | The environment in which populations or individual species live or grow. |
| Habitats Regulations | The Conservation of Habitats and Species Regulations 2017, which implement the Habitats Directive. |
| Heat Recovery Steam Generators (HRSG) | <p>HRSGs recover the hot flue gases from the Gas Turbines. The heat is used to produce steam that will drive the existing steam turbines. HRSGs are required where the generating station is operating in CCGT mode.</p> <p>The HRSGs form part of Work No. 1A (up to two HRSGs in connection with Unit X) and Work No. 2A (up to two HRSGs in connection with Unit Y) in Schedule 1 of the draft DCO submitted with the DCO Application.</p> |
| Impact | A physical or measurable change to the environment attributable to the Proposed Scheme |

| Term | Definition |
|--|---|
| Indirect Effects | Effects that result indirectly from the proposed project, in this case the Proposed Scheme, as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects. |
| Landscape | An area, as perceived by people, the character of which is a result of the action and interaction of natural and/or human factors. |
| Local Biodiversity Action Plan (LBAP) | A strategy and set of objectives aimed at conserving, monitoring and raising awareness of the fauna, flora and habitats- collectively referred to as biodiversity- usually along local authority boundary lines. |
| Mitigation Measures | Actions proposed to avoid, reduce and where possible offset likely significant adverse effects arising from the whole or specific elements of a development |
| National Planning Policy Framework (NPPF) | A document that sets out government's planning policies for England and how these are expected to be applied. |
| National Policy Statements (NPS) | Overarching policy designated under the Planning Act 2008 concerning the planning and consenting of NSIPs in the UK |
| Nationally Significant Infrastructure Project (NSIP) | A project meeting the criteria for a “nationally significant infrastructure project” set out in section 14 of the Planning Act 2008, and therefore requiring authorisation under the PA 2008 by way of a DCO. The Proposed Scheme constitutes a Nationally Significant infrastructure Project (NSIP) by virtue of s.14(1)(a) and s.15 of the PA 2008 as it is an onshore generating station in England of 50 MW capacity or more. |
| Open Cycle Gas Turbine (OCGT) | An open cycle gas turbine converts heat into mechanical energy. Combustion of a fuel within a gas turbine produces hot gases that expand over a complex series of blades that cause the turbine to rotate which in turn drives an electrical generator |
| Preliminary Ecological Appraisal (PEA) | Preliminary ecological surveys have a range of purposes; one key use is to gather data on existing conditions, often with the intention of conducting a preliminary assessment of likely impacts of development schemes or establishing the baseline for future monitoring. As a precursor to a proposed project, some evaluation is usually made within these appraisals of the ecological features present, as well as scoping for notable species or habitats, identification of potential constraints to proposed development schemes and recommendations for mitigation. |
| Proposed Scheme | |
| Ramsar Site | Wetlands of international importance, designated under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat adopted 1971 (known as the Ramsar Convention). |

| Term | Definition |
|---|---|
| Repower | Decommissioning of existing coal-fired units and replacement with newly constructed gas-fired units utilising some of the existing infrastructure. |
| Selby District Core Strategy Local Plan 2013 (CS) | The first part of the replacement for the Selby District Local Plan 2005. This sets out the high level strategic policies for the District for the period 2012 - 2028. The policies in the Core Strategy replace much of the SDLP policies. |
| Selby District Local Plan 2005 (SDLP) | A suite of local plan policies that was implemented in 2005. Some policies have been saved for joint consideration with the Selby District Core Strategy Local Plan 2013. Others have been deleted and replaced with new policies in the Core Strategy |
| Significance | A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic. |
| Site | The Site refers to the Power Station Site, the Carbon capture readiness reserve space (which is also the location of temporary construction laydown described as Work No. 9B in Schedule 1 to the draft DCO submitted with the DCO Application) and the Pipeline Area |
| Site Boundary | The Site Boundary refers to the outer perimeter of the Site |
| Site of Special Scientific Interest (SSSI) | A site statutorily notified under the Wildlife and Countryside Act 1981 (as amended) as being of special nature conservation or geological interest. SSSIs include wildlife habitats, geological features and landforms. |
| Special protection Area (SPA) | Sites classified in accordance with Article 4 of the Birds Directive (79/409/EEC). They are classified for rare and vulnerable birds (as listed on Annex 1 of the Directive), and for regularly occurring migratory species. |
| Species | A group of interbreeding organisms that seldom or never interbreed with individuals in other such groups, under natural conditions; most species are made up of subspecies or populations. |
| Survey Area | The limits of the breeding bird survey (as |
| Unit X | <p>The construction of a gas fired generating station capable of operating in CCGT and OCGT modes and which would have a generating capacity of up to 1,800 MW. Unit X would be connected to a battery storage facility, with a capability of up to 100MW. The total output from Unit X would be 1,900MW.</p> <p>Unit X is described in Work No. 1 of Schedule 1 to the draft DCO submitted with the DCO Application.</p> |
| Unit Y | The construction of a gas fired generating station capable of operating in CCGT and OCGT modes and which would have a generating capacity of up to 1,800 MW. Unit Y would be connected to a battery storage facility, with a capability of up to 100MW. The total output from Unit Y would be 1,900MW. |

| Term | Definition |
|---|--|
| | Unit Y is described in Work No. 2 of Schedule 1 to the draft DCO submitted with the DCO Application. |
| Waterbody | A discrete body of water forming a physical feature. |
| White Rose Carbon Capture and Storage Project | A proposed project to construct and operate a new 448 MW power station (super critical coal-fired with oxygen combustion technology) adjacent to the Existing Drax Power Station Complex |
| Wildlife and Countryside Act 1981 | The principal piece of UK legislation relating to the protection of wildlife. |

Abbreviations

| Abbreviation | Description |
|--------------|---|
| Application | The DCO Application |
| BAP | Biodiversity Action Plan |
| BEIS | Business, Energy and Industrial Strategy |
| BoCC | Birds of Conservation Concern |
| BTO | British Trust for Ornithology |
| CIEEM | Chartered Institute of Ecology and Environmental Management |
| CCGT | Combined Cycle Gas Turbine |
| DCO | Development Consent Order |
| EcIA | Ecological Impact Assessment |
| NSIP | Nationally Significant Infrastructure Project |
| EN-1 | Overarching NPS for Energy |
| EN-2 | NPS for Fossil Fuel Electricity Generating Infrastructure |
| EN-4 | NPS for Gas Supply Infrastructure and Gas Oil Pipelines |
| ES | Environmental Statement |
| GRF | Gas Receiving Facility |
| JNCC | Joint Nature Conservation Committee |
| LBAP | Local Biodiversity Action Plan |
| LCA | Landscape Character Areas |
| m | Metres |
| NE | Natural England |
| NERC | Natural Environment and Rural Communities |
| NPPF | National Planning Policy Framework |
| NPS | National Policy Statement |
| NSIP | National Significant Infrastructure Project |
| NTS | |
| OCGT | Open Cycle Gas Turbine |
| PEA | Preliminary Ecological Appraisal |
| RSPB | Royal Society for the Prevention of Birds |
| SDC | Selby District Council |
| SDLP | Selby District Local Plan |
| SoS | Secretary of State |
| SPA | Special Protection Area |

| Abbreviation | Description |
|--------------|---|
| SSSI | Site of Special Scientific Interest |
| WRCCS | White Rose Carbon Capture and Storage Project |
| WCA | Wildlife and Countryside Act |

Contents

| | |
|------------------------------------|-----------|
| EXECUTIVE SUMMARY | 1 |
| 1 INTRODUCTION | 2 |
| 2 METHODS | 7 |
| 3 RESULTS AND EVALUATION | 9 |
| 4 INTERPRETATION OF RESULTS | 21 |
| 5 CONCLUSION | 25 |
| 6 REFERENCES | 26 |

Table of Tables

| | |
|---|----|
| Table 1 - Dates of Survey and weather conditions..... | 8 |
| Table 2 - Breeding territory counts of all birds recorded within the Survey Area | 11 |
| Table 3 - Confirmed, probable or possible breeders within the Survey Area | 13 |
| Table 4 - Birds recorded during the breeding bird survey but not considered to be breeding within the Survey Area | 19 |

Table of Figures

| | |
|--|----|
| Figure 1 - Site Layout | 27 |
| Figure 2 - Breeding Bird Survey Area | 28 |
| Figure 3 - Breeding Bird Territories | 29 |

EXECUTIVE SUMMARY

Drax Power Limited have now submitted a Development Consent Order (DCO) application to the Secretary of State (SoS) for Business Energy and Industrial Strategy (BEIS). The application for the Proposed Scheme includes the repowering of up to two existing coal-fired units with gas at the Existing Drax Power Station Complex, along with the construction of a battery storage facility and Gas Pipeline.

Records of protected and notable bird species within 5 km of the Site were identified during a desk study, which formed part of a Preliminary Ecological Appraisal (PEA) undertaken by WSP in 2017. Suitable habitat for supporting breeding birds was identified during the Phase 1 habitat survey element of the PEA. Consequently, WSP were commissioned to undertake a breeding bird survey of the Site. Alongside the breeding bird survey, impacts of the Proposed Scheme on breeding birds were assessed as part of the Environmental Statement (ES).

Four breeding bird survey visits were undertaken between April and July 2018. The surveys were undertaken by two WSP ecologists walking a pre-designed transect route surveying for breeding bird activity. The survey methodology included observing physical behaviours displayed and listening to songs and calls from bird species within the Survey Area. All bird species seen or heard were recorded.

A total of 50 bird species were recorded during the breeding bird surveys. Of these species, 20 were protected and notable species that have one or more designations. One was listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), nine were Species of Principal Importance (SPI) under the Natural Environment and Rural Communities (NERC) Act 2006, nine were Birds of Conservation Concern (BoCC) red list species and eight are BoCC amber list species. Additionally, 10 species are listed as priority species on the Selby Local Biodiversity Action Plan (LBAP) (Ref 21).

Of the 50 bird species recorded during the breeding bird survey, 13 were confirmed breeders, 15 were probable breeders, 14 were possible breeders and eight were considered non-breeders. Five bird communities were identified within the Survey Area, namely: urban fringe and garden birds; mosaic, scrub and reedbed specialists; farmland specialists; water birds; and raptors.

A total of 45 territories were occupied by a number of bird species with blackcap, whitethroat, bullfinch, chaffinch, blue tit and blackbird occupying the most (three) territories throughout the Survey Area. Impacts on breeding birds as a result of the Proposed Scheme as reported in the Environmental Statement are conservative relative to the findings of the completed surveys. The precautionary assessment in the ES covered the likely worst-case impacts to breeding birds that could arise from the Proposed Scheme. Avoidance, mitigation and compensation measures are outlined in Chapter 9 (Biodiversity) of the Drax Repower DCO Environmental Statement (Examination Library Reference APP-077).

1 INTRODUCTION

1.1 Project Background

- 1.1.1. The Proposed Scheme is to repower up to two existing coal-powered generating units (Units 5 and 6) at the Existing Drax Power Station Complex with new gas turbines that can operate in both combined cycle and open cycle modes. The term "repower" is used as existing infrastructure, such as the steam turbine and cooling towers, that are currently used for the coal fired units would be reutilised for the new gas fired generating units/stations.
- 1.1.2. The repowered units (which each constitute a new gas fired generating station) would have a new combined capacity of up to 3,600 MW in combined cycle mode (1,800 MW each), replacing existing units with a combined capacity to generate up to 1,320 MW (660 MW each).
- 1.1.3. Each gas generating station (or unit) would have up to two gas turbines, with each gas turbine powering a dedicated generator of up to 600 MW in capacity. The gas turbines in each generating station (or unit), therefore, would have a combined capacity of up to 1,200 MW. The gas turbines in each generating station (or unit), in combined cycle mode, would provide steam to the existing steam turbine (through Heat Recovery Steam Generators (HRSGs)) which would generate up to 600 MW per generating station (or unit). Each generating station (or unit) would have up to two HRSGs. This results in a capacity for each generating station of up to 1,800 MW and, should both Units 5 and 6 be repowered, a combined capacity of up to 3,600 MW. The new gas turbine generating stations (or units) have been designated the terms "Unit X" and "Unit Y".
- 1.1.4. Each of Unit X and Unit Y would have (subject to technology and commercial considerations) a battery energy storage facility with a capacity of up to 100 MW per Unit, resulting in a combined battery energy storage capacity of up to 200 MW. The battery energy storage facilities may be contained within a single structure.
- 1.1.5. The total combined capacity of the two gas fired generating stations, Unit X and Unit Y, and two battery storage facilities (i.e. the total combined capacity of the Proposed Scheme) is therefore 3,800 MW.
- 1.1.6. The DCO seeks consent for the following flexibility:
 - Repowering of either Unit 5 or 6 and construction of Unit X as a gas fired generating station (this would leave either Unit 5 or 6 (depending on which had been repowered) as a coal-fired unit); or
 - Repowering of both Units 5 and 6 and construction of Unit X and Unit Y as two gas fired generating stations.
- 1.1.7. In the event that a single unit is repowered and Unit X constructed, up to two gas turbines and up to two HRSGs and (subject to technology and commercial considerations) a battery energy storage facility of up to 100 MW storage capacity would be constructed. The maximum size of the battery storage cells and any structure built to protect them would not change, as the battery storage cells for one Unit could have sufficient battery capacity to allow the 100 MW output to be sustained for a longer duration. However, the fuel gas station and gas insulated switchgear required for the Gas Pipeline would be smaller.

- 1.1.8. In the event that two units are repowered and both Unit X and Unit Y are constructed, then construction works would be undertaken consecutively rather than concurrently. It is assumed for the purposes of the ES that there would be a gap of a year between construction periods, but this could be longer depending on commercial considerations. Unit Y would mirror Unit X, with up to two gas turbines and up to two HRSGs and (subject to technology and commercial considerations) a battery energy storage facility of up to 100 MW storage capacity which may be included within the structure, should one be constructed, protecting the battery for Unit X.
- 1.1.9. In order to repower to gas, a new Gas Pipeline would be constructed from the Existing Drax Power Station Complex to the National Transmission System (NTS) operated by National Grid. Pipeline infrastructure would be the same whether Unit X was constructed or whether Unit X and Unit Y was constructed.
- 1.1.10. A gas receiving facility (GRF) comprising Pipeline Inspection Gauge (PIG) Trap Facility (PTF), Pressure Reduction and Metering Station (PRMS) and compressor station is proposed south of woodland to the east of New Road.
- 1.1.11. At the connection to the NTS there will be an above ground installation (AGI) south of Rusholme Lane. The AGI involves a PIG Trap Launching station (PTF-L) which will be operated by Drax, and a Minimum Offtake Connection (MOC), which will be operated by National Grid.
- 1.1.1 This report was prepared to accompany Chapter 9 (Biodiversity) of the Environmental Statement (ES) (Ref 1) (Examination Library Reference APP-077) and should be read in conjunction with it.

1.2 Ecological Background

- 1.2.1 WSP conducted a Preliminary Ecological Appraisal (PEA) (Ref 2) between August and September 2017 of land within, and adjacent to Drax Power Station, including the land required to install a Gas Pipeline. A wintering bird survey was also carried out by WSP UK Ltd, between November 2017 and March 2018 of suitable habitat within the Site (Ref 3).
- 1.2.2 The PEA identified habitats with potential to support breeding birds within the Site. The desk study element of the PEA identified protected and notable species records, of both resident and migratory birds, within 5 km of the Site. Three statutory designated sites of ornithological importance were also identified during desk study within 5km of the Site. These were the Lower Derwent Valley Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and Ramsar Site, River Derwent (SSSI) and Humber Estuary (SPA, Ramsar site and SSSI). All three sites are designated in whole or in part for their important bird assemblages.
- 1.2.3 Due to the presence of suitable habitats on and adjacent to the Site and desk study records, targeted breeding bird surveys were recommended. The purpose of the recommended surveys was to confirm the diversity of bird species present, their breeding status and to identify whether bird populations recorded within and adjacent to the Site included species of conservation concern.
- 1.2.4 Data recorded during the PEA and wintering bird surveys were used to inform an assessment of the impacts on breeding birds within the ES (Ref 1) prior to the submissions of the Application and completion of the breeding survey programme.
- 1.2.5 A series of breeding bird surveys were also carried out in 2014 as part of the White Rose Carbon Capture and Storage (WRCCS) project (Ref 4). A Nationally Significant Infrastructure Project (NSIP) proposed to be developed immediately north of Drax Power Station. Part of the survey area for the project's 2014 surveys was located within the Red Line Boundary of the Drax Repower Project, to the north. The surveys recorded 50 bird species, 19 of which are protected and notable species.

1.3 Brief and Objectives

- 1.3.1 The brief was to provide baseline data of the distribution and abundance of bird species and their populations on and adjacent to the Site. To meet this objective, WSP UK Ltd was commissioned by Drax Power Ltd in February 2018 to survey suitable habitat within the Site and produce a list of bird species encountered to ascertain their breeding status (i.e. confirmed, probable or possible breeding, or not considered to be breeding on Site).
- 1.3.2 Recommendations as to how the Proposed Scheme will account for breeding birds in relation to legislation, planning and biodiversity policy are outlined in Chapter 9 (Biodiversity) of the ES (Ref 1) (Examination Library Reference APP-077). This report is submitted as an addendum to the ES.

1.4 Legislation and Planning Policy Context

- 1.4.1 The Habitats Regulations 2017 Part 1 Regulation 10 (2) & (3) (Ref 5) state that local authorities *‘must take such steps in the exercise of their functions as they consider appropriate to contribute to...the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the UK including by means of the upkeep, management and creation of such habitat...’*. The legislation continues to state that economic and recreation requirements must be taken into consideration in considering which measures are appropriate.
- 1.4.2 Under the Wildlife and Countryside Act (WCA) 1981 (as amended) (Ref 6) all wild birds are protected from killing and injury, and their nests and eggs are protected from taking, damage and destruction whilst in use. Additional protection is afforded to species listed under Schedule 1 of the WCA, where it is also an offence to disturb these species at or near the nest, or whilst they have dependent young.
- 1.4.3 Various bird species are also identified as Species of Principal Importance (SPI) via the provisions of Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (Ref 7). Under Section 40 of the NERC Act 2006 public bodies have a duty to have regard to the conservation of SPI when carrying out their functions, including determining planning applications.
- 1.4.4 The United Kingdom Biodiversity Action Plan (UKBAP) (Ref 8) was a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The priority species generally correlate with those listed in accordance with Section 41 of the NERC Act. The UKBAP has now been replaced by the UK Post-2010 Biodiversity Framework (Ref 9). The UKBAP does however contain useful information on how to characterise important species assemblages and habitats, which is still relevant.
- 1.4.5 The UK BAP was supplemented by Local Biodiversity Action Plans (LBAP), which are still in existence and are used to identify habitats and species of ecological value or concern at the local level.
- 1.4.6 The Birds of Conservation Concern (BoCC) 4 (Ref 10) comprises a ‘red list’ of species of high conservation concern and an ‘amber list’ of species of moderate conservation concern. Red or amber listing does not confer additional protection under legislation or planning policy, however it provides a basis for informing evaluation of a Site and for targeting conservation effort and is a widely used resource for interpreting bird populations.
- 1.4.7 The overarching National Policy Statement (NPS) for Energy (EN-1) (Ref 19) specifically section 5.3 details the approach a project must take in regard to biodiversity. It states that the Applicant should clearly set out any effects of the development on internationally, nationally and locally designated sites of nature conservation importance, on protected species and habitats and other species identified as being of principal importance for the conservation of biodiversity. The Applicant should also demonstrate how the development has taken measures to conserve and enhance biodiversity.

- 1.4.8 The NPS for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (Ref 19), specifically section 2.21 refers to biodiversity, landscape and visual impacts from the construction of a pipeline. This policy statement provides additional considerations to the general principles outlined in EN-1. These considerations comprise the effect on components valuable to biodiversity typically grasslands, hedgerows/hedgebanks, trees, woodlands, waterbodies and watercourses that are located within and/or adjacent to the pipeline route. These components are all important breeding and foraging areas for breeding bird communities.
- 1.4.9 EN-4 relates primarily to the Pipeline Area and provides a set of assessment and mitigation measures to combat pipeline construction related impacts on biodiversity.
- 1.4.10 At the national level, the National Planning Policy Framework (NPPF) (2018) (Ref 11) forms the basis for planning development decisions with respect to conserving and enhancing the natural environment, including birds. The NPPF sets out, amongst other points how at an overview level the “planning system should contribute to and enhance the natural and local environment by:
- 1.4.11 Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...”
- 1.4.12 The NPPF also sets out how planning policies should “minimise impacts on biodiversity by the:
- *-[promotion of] the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity ...”*
- 1.4.13 The ODPM Biodiversity and geological conservation circular 06/05 (Ref 12) should be read in conjunction with the NPPF and provides supplementary guidance, including confirmation that:
- *“The presence of a protected species is a material consideration when a planning authority is considering a development proposal.”*
- 1.4.14 At a local level, the Selby District Local Plan (2005) (Ref 13) states that:
- *“Development and other land use changes which may harm badgers and other species protected by Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981, as amended, or the EC Habitats and Species Directive will not be permitted.”*
- 1.4.15 The Selby District Core Strategy Local Plan (2013) (Ref 14) adds to this by:
- *“Ensuring developments retain, protect and enhance features of biological and geological interest and provide appropriate management of these features and that unavoidable impacts are appropriately mitigated and compensated for, on or off-site..”*

2 METHODS

2.1 Breeding Bird Survey

- 2.1.1 To inform an evaluation of the Site's habitats for bird species, four breeding bird survey visits following a pre-designed transect route were completed between April and July 2018. Each survey visit followed a standard method based on the British Trust for Ornithology's (BTO) Common Bird Census (CBC), as summarised by Bibby *et al.* (2000) (Ref 15). The 'Survey Area', encompassed all suitable breeding habitat within Development Parcels A, B, C, D and E (see Figure 2 – Breeding Bird Survey Area) where the highest levels of construction activity are proposed to take place. Transects were designed based on Phase 1 habitat data collected in the field (Ref 2). This included woodland, scattered trees, grassland, hedgerow, scrub, cultivated/or disturbed land buildings. The transect route measured approximately 3.8 km.
- 2.1.2 All survey visits were completed in the early morning, commencing within an hour after dawn (see Table 1). Each of the survey visits lasted approximately five hours.
- 2.1.3 During each survey visit the transect route was walked slowly and methodically, with surveyors recording activity within habitat along the transect route and approximately 50 m adjacent to it. Birds were identified by scanning the area visually and listening for songs and calls. In accordance with good practice guidance (Ref 15), the start point and direction of the route were varied on each survey visit. This served to minimise bias as birds may be active at different times of day and in different areas. The locations of birds seen and heard were mapped using standard BTO two letter codes and activity symbols.
- 2.1.4 In addition to birds recorded during transect walks, incidental observations of birds were also collected by WSP ecologists during other field surveys that overlapped with the Survey Area, these were included in the final breeding bird survey dataset. These recordings are indicated by an asterisk in Table 3. Breeding activity recorded outside of the Survey Area including overlapping territories, territorial display and birds commuting out of the Survey Area was also recorded. Breeding behaviour exclusively recorded outside of the Survey Area was only noted for protected and notable birds.

2.2 Data Analysis and Interpretation

- 2.2.1 Where breeding activity was observed, this was categorised using the following standard BTO and UK Rare Breeding Birds Panel (Ref 16) criteria:
- Non-breeder: Birds observed flying over, considered to still be on migration or a summering non-breeder.
 - Possible breeding: Bird observed singing or present in suitable habitat in breeding season.
 - Probable breeding: A pair observed in suitable habitat, territorial behaviour observed in the same place on at least two separate occasions, or by many individuals simultaneous on one day, or birds observed using a probable nest site showing courtship or display behaviour in suitable breeding habitat or nest building.
 - Confirmed breeding: Nest containing eggs or young seen or heard adults observed carrying faecal sac or food, feigning injury as a distraction display or entering or leaving the nest site in circumstances indicating an occupied nest, a used nest or eggshells

found or recently fledged or downy young recorded (showing evidence of dependency on adults).

2.2.2 Recorded activities (singing, territorial defence, nesting behaviours etc) were used to map the extent of individual bird breeding territories and to define the breeding bird community found within the Survey Area. Observations from all four survey visits were combined to identify clusters of behaviours indicating breeding, a method used extensively in the BTO's Common Bird Census undertaken between 1962 and 2000.

2.2.3 Classification of territories was undertaken for species observed within suitable breeding habitat. The criteria used to classify a territory based on bird behaviour were:

- At least two occurrences of song observed in the same location, indicating a male holding a breeding territory.
- Behaviour supporting the positive assertion a breeding attempt is being made, including repeated alarm calls by parents protecting a nest, and/or birds carrying faecal sacs from a nest or food to dependent young.
- Nest containing eggs found, and/or nest with dependent young (pulli) seen or heard.
- A pair observed within suitable habitat during breeding season.

2.3 Dates of Field Survey and Metadata

2.3.1 Dates of survey and weather conditions are given in Table 1 below.

Table 1 - Dates of Survey and weather conditions

| Survey Visit | Start Time | Date | Mean Temperature (°C) | Cloud Cover (Oktas) | Wind Speed (Beaufort Scale) and Direction | Rain | Visibility |
|--------------|------------|------------|-----------------------|---------------------|---|---------|------------|
| 1 | 07:00 | 11/04/2018 | 6.4 | 8 | 2, North East | Drizzle | Good |
| 2 | 06:15 | 03/05/2018 | 9.4 | 3 | 1, East | None | Excellent |
| 3 | 05:30 | 19/06/2018 | 13.2 | 3 | 1, East | None | Excellent |
| 4 | 05:30 | 05/07/2018 | 15 | 2 | 1, South East | None | Excellent |

2.4 Notes and Limitations

2.4.1 Whilst every effort has been made to detect all species present, some bird species are more difficult to detect due to their shy or secretive nature and therefore may have gone undetected. This is a constraint applicable to all bird surveys and is not considered a significant limitation upon interpretation of the results of the surveys.

3 RESULTS AND EVALUATION

3.1 Overview

- 3.1.1 A total of 50 species were recorded on, over, or adjacent to the Survey Area during the breeding bird survey. Of these, 42 were considered to be displaying some form of breeding behaviour within the Survey Area. 13 were confirmed breeders, 15 were probable breeders and 14 were possible breeders. Of the 50 species recorded, eight were considered non breeders. 16 bird species of those recorded as possible, probable or confirmed breeders are protected and/or notable species with one or multiple designations.
- 3.1.2 Details of breeding bird territories are shown in Table 2 and displayed in Figure 3 with breeding bird categories and community type shown in Table 3. Breeding territories of protected and notable species recorded outside of the Survey Area are also displayed on Figure 3. It should be noted that categories are not exclusive and a species can be listed in more than one conservation category, such as being a red or amber list species on the BoCC and also SPI.
- 3.1.3 Protected and notable species are those protected by legislation, planning policy and biodiversity guidance (WCA, 1981, NPPF, BoCC and LBAP). The following species were recorded during the breeding bird survey within the Survey Area:
- One species listed on Schedule 1 of the WCA 1981 (as amended); namely, peregrine falcon (*Falco peregrinus*) which was not considered to breed within the Survey Area but is likely to be nesting on Power Station infrastructure due to its nesting habits.
 - Nine species listed as SPI in accordance with Section 41 of the NERC Act 2006. Of these species, dunnoek (*Prunella modularis*) and yellowhammer (*Emberiza citronella*) were confirmed breeders. House sparrow (*Passer domesticus*), linnet (*Carduelis cannabina*), skylark (*Alauda arvensis*) and reed bunting (*Emberiza schoeniclus*) were probable breeders and lapwing (*Vanellus vanellus*), song thrush (*Turdus philomelos*) and starling (*Sturnus vulgaris*) were possible breeders within the Survey Area.
 - Eight BoCC red list species. Of these species, yellowhammer was a confirmed breeder whilst house sparrow, linnet and skylark were probable breeders. Lapwing, mistle thrush (*Turdus viscivorus*) and starling were possible breeders
 - Eight BoCC amber list species. Of these species bullfinch (*Pyrrhula pyrrhula*), dunnoek and kestrel (*Falco tinnunculus*) were confirmed breeders. Reed bunting and tawny owl were probable and possible breeders respectively. Greylag goose (*Anser anser*), black-headed gull (*Chroicocephalus ridibundus*) and swift (*Apus apus*) were considered non-breeders.
 - 10 Selby LBAP species, of these, three were confirmed breeders, four were probable breeders and three were possible breeders.
 - Skylark which is a S41, BoCC red list and Selby BAP species (as noted above) was confirmed breeding within and outside of the Survey Area.

3.2 Breeding Bird Survey Results

- 3.2.1 As outlined in Section 2, birds recorded during each survey visit have been categorised into confirmed, probable or possible breeders within the Survey Area. All bird species, including their breeding status, are listed in Table 2 below.
- 3.2.2 All birds not considered to breed within the Survey Area and/or recorded adjacent to Site are listed in Table 4. This included birds flying over and/or foraging within the Survey Area for which suitable breeding habitat is not present. It also includes bird species that did not display breeding behaviour (i.e absence of singing, calls and territorial defence) and passage migrants.
- 3.2.3 The results show that birds are widely distributed across the Site. Areas with the highest levels of breeding activity within the Survey Area comprised the Materials Handling Area (Development Parcel E) and the hedgerows, treelines and arable farmland to the east of the Power Station (Development Parcel A).
- 3.2.4 The Survey Area comprised a mosaic of habitats including semi-improved grassland, dense and scattered scrub, species-rich and species-poor hedgerows, mixed woodland, ornamental and introduced shrubs and arable farmland. The abundance and species diversity recorded during the survey is typical of the surrounding landscape setting in North Yorkshire. The overarching bird community is dominated by widespread species expected to be frequent within the Site's habitats, with a number of protected and notable bird species also recorded.
- 3.2.5 Such widespread birds included goldfinch (*Carduelis carduelis*), robin (*Erithacus rubecula*), wren (*Troglodytes troglodytes*), blackbird (*Turdus merula*), blue tit (*Cyanistes caerulea*), carrion crow (*Corvus corone*), woodpigeon (*Columba palumbus*) and collared dove (*Streptopelia decaocto*). These species are common and widespread species of Yorkshire's avifauna, documented in the Yorkshire Bird Report 2014 (Ref 17).
- 3.2.6 Given the extensive cover of arable farmland in and adjacent to the Survey Area, it is unsurprising that farmland birds such as skylark, linnet, yellowhammer and reed bunting were recorded.
- 3.2.7 Widespread warblers such as blackcap (*Sylvia atricapilla*) and chiffchaff (*Phylloscopus collybita*) were present within the Survey Area, with whitethroat and lesser whitethroat also recorded.
- 3.2.8 Starling and house sparrow (both SPI and BoCC red list) are likely to be utilising Power Station infrastructure as nesting opportunities.
- 3.2.9 A peregrine falcon was recorded on two occasions on separate surveys flying over the site. It is unlikely to breed within the Survey Area due to its specialist nesting needs (typically high up on cliffs or tall infrastructure). It is unlikely that peregrines would use the overhead line towers within the Survey Area due to the large colony of rooks currently occupying them.
- 3.2.10 Table 2 below lists all bird species recorded within the Survey Area and their respective territory counts. Territories of all bird species are displayed on Figure 3.

3.2.11 Figure 3 depicts breeding territories using ‘territory clusters’. The determining of a breeding territory is based on methods created by Marchant for the BTO in 1983 (Ref 20) and detailed in the Second Edition of Bird Census Techniques (Bibby *et al.* 2000) (Ref 16) which states that, to create a territory cluster:

‘There must be at least two registrations if there were eight or fewer effective visits for the species... the number of effective visits is the number from, and including the visit on which the species was first detected’

A registration is defined as the presence of a bird species displaying typical breeding behaviour (as outlined in Section 2). Table 2 lists the total number of territories held by each species throughout the breeding bird survey campaign.

Table 2 - Breeding territory counts of all birds recorded within the Survey Area

| Common Name | Scientific name | Number of Territories | BoCC Category | SPI | Schedule 1 (WCA 1981) | Selby LBAP |
|--------------------|--------------------------------|-----------------------|---------------|-----|-----------------------|------------|
| Blackcap | <i>Sylvia atricapilla</i> | 3 | Green | No | No | No |
| Whitethroat | <i>Sylvia communis</i> | 3 | Green | No | No | No |
| Bullfinch | <i>Pyrrhula pyrrhula</i> | 3 | Amber | No | No | Yes |
| Chaffinch | <i>Fringilla coelebs</i> | 3 | Green | No | No | No |
| Blue tit | <i>Cyanistes caerulea</i> | 3 | Green | No | No | No |
| Blackbird | <i>Turdus merula</i> | 3 | Green | No | No | No |
| Chiffchaff | <i>Phylloscopus Collybita</i> | 2 | Green | No | No | No |
| Song thrush | <i>Turdus philomelos</i> | 2 | Red | Yes | No | No |
| Dunnock | <i>Prunella modularis</i> | 2 | Amber | Yes | No | No |
| Yellowhammer | <i>Emberiza citrinella</i> | 2 | Red | Yes | No | Yes |
| Goldfinch | <i>Carduelis carduelis</i> | 2 | Green | No | No | No |
| Robin | <i>Erithacus rubecula</i> | 2 | Green | No | No | No |
| Wren | <i>Troglodytes troglodytes</i> | 2 | Green | No | No | No |
| Greenfinch | <i>Carduelis chloris</i> | 2 | Green | No | No | Yes |
| Reed bunting | <i>Emberiza schoeniclus</i> | 2 | Amber | Yes | No | Yes |
| Long-tailed tit | <i>Aegithalos caudatus</i> | 2 | Green | No | No | No |
| Great tit | <i>Parus major</i> | 2 | Green | No | No | No |
| Skylark | <i>Alauda arvensis</i> | 2 | Red | Yes | No | Yes |
| Linnet | <i>Carduelis cannabina</i> | 1 | Red | Yes | No | Yes |
| Lesser whitethroat | <i>Sylvia curruca</i> | 1 | Green | No | No | No |

| Common Name | Scientific name | Number of Territories | BoCC Category | SPI | Schedule 1 (WCA 1981) | Selby LBAP |
|----------------|-------------------------------|-----------------------|---------------|-----|-----------------------|------------|
| Willow warbler | <i>Phylloscopus trochilus</i> | 1 | Amber | No | No | No |
| Rook | <i>Corvus frugilegus</i> | 1 | Green | No | No | No |
| Coal tit | <i>Periparus ater</i> | 1 | Green | No | No | No |

Table 3 - Confirmed, probable or possible breeders within the Survey Area

| Species | | WCA 1981 | NERC Act | BoCC | | | | | |
|---|----------------------------|----------|----------|----------|-------|-------|-----------------------------|--|-------------------------------|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | Breeding Status on the Site | Activity on the Site | Bird Community Type |
| Blackbird | <i>Turdus merula</i> | | | | | | Confirmed breeder | Recorded throughout the Survey Area in suitable habitat, birds observed carrying food and other territorial activity such as multiple birds singing simultaneously and alarm calls. | Urban fringe and garden birds |
| Blackcap | <i>Sylvia atricapilla</i> | | | | | | Probable breeder | Birds recorded singing simultaneously in multiple areas within the Survey Area. Pairs recorded perched within scrub adjacent to North Station Wood. | Woodland specialist |
| Blue tit | <i>Cyanistes caeruleus</i> | | | | | | Probable breeder | Continuous alarm calls in various areas of the Survey Area, highest activity within North Station Wood and Development Parcel E. | Urban fringe and garden birds |
| Bullfinch | <i>Pyrrhula pyrrhula</i> | | | | Y | Y | Confirmed Breeder | Multiple pairs recorded within Survey Area. Predominantly in Development Parcel A, where singing was recorded. | Woodland specialist |
| Buzzard | <i>Buteo buteo</i> | | | | | | Possible breeder | One individual spotted circling the north-eastern section of the Survey Area and calling. Another individual recorded flying along the northern section of the Survey Area within Development Parcel B. Some nesting suitability within North Station Wood and the north-eastern tree line of the Survey Area. | Woodland specialist |
| Carrion crow | <i>Corvus corone</i> | | | | | | Confirmed breeder | Birds recorded in suitable habitat, two young birds recorded including multiple adults carrying nesting material. | Urban fringe and garden birds |

| Species | | WCA 1981 | NERC Act | BoCC | | | | | |
|---|-------------------------------|----------|----------|----------|-------|-------|-----------------------------|---|--------------------------------------|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | Breeding Status on the Site | Activity on the Site | Bird Community Type |
| Chaffinch | <i>Fringilla coelebs</i> | | | | | | Probable breeder | Multiple birds singing simultaneously, including alarm calls. Multiple pairs observed throughout Survey Area, predominantly in Development Parcel E and in the hedgerow to the east and south of Development Parcel C. | Urban fringe and garden birds |
| Chiffchaff | <i>Phylloscopus collybita</i> | | | | | | Probable breeder | Birds recorded singing in the same locations on three of the four surveys visits, including territorial defence with another individual. Short hand song and alarm calls recorded. | Woodland specialist |
| Coal tit | <i>Periparus ater</i> | | | | | | Probable breeder | Birds recorded singing on two of the four survey visits in the same location within North Station Wood. | Woodland specialist |
| Collared dove | <i>Streptopelia decaocto</i> | | | | | | Probable breeder | Singing in all areas of the Survey Area including display flights. Multiple pairs observed. | Urban fringe and garden birds |
| Dunnock | <i>Prunella modularis</i> | | Y | | Y | | Confirmed breeder | Multiple birds recorded singing, territorial defence recorded within hedgerows to the north of the Survey Area. Two individuals recorded carrying nesting material. Multiple individuals recorded throughout the Survey Area. | Urban fringe and garden birds |
| Garden warbler | <i>Sylvia borin</i> | | | | | | Possible breeder | Two individuals recorded within scrub and trees just outside of North Station Wood. | Mosaic, scrub and reedbed specialist |
| Goldfinch | <i>Carduelis carduelis</i> | | | | | | Probable breeder | Birds recorded singing simultaneously in different locations, and in the same location on multiple survey visits. Recorded all over Survey Area and continuously in typical flocks. | Urban fringe and garden birds |

| Species | | WCA 1981 | NERC Act | BoCC | | | Breeding Status on the Site | Activity on the Site | Bird Community Type |
|--|----------------------------|----------|----------|----------|-------|-------|-----------------------------|---|--------------------------------------|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | | | |
| Great tit | <i>Parus major</i> | | | | | | Probable breeder | Multiple birds singing and calling in all areas of the Survey Area. | Urban fringe and garden birds |
| Greenfinch | <i>Chloris chloris</i> | | | | | | Possible breeder | Bird recorded singing in Development Parcel C (east). One individual recorded using its alternative song on top of a scot's pine (<i>Pinus sylvestris</i>). Another individual recorded within the treeline to the east of the Power Station, to the west of the arable farmland. | Urban fringe and garden birds |
| House sparrow | <i>Passer domesticus</i> | | Y | Y | | Y | Probable breeder | Colony of house sparrows recorded on the eastern edge of the Power Station within a hedgerow. Multiple birds recorded in hedgerows throughout Survey Area. | Urban fringe and garden birds |
| Jay | <i>Garrulus glandarius</i> | | | | | | Possible breeder | Pairs heard within North Station Wood and the treeline to the north-east of the Survey Area, | Woodland specialist |
| Kestrel | <i>Falco tinnunculus</i> | | | | Y | Y | Confirmed breeder | Three individuals recorded. One individual carrying food and one recorded perched next to an old corvid nest on an overhead line tower to the south of the Survey Area. | Farmland specialist |
| Lapwing | <i>Vanellus vanellus</i> | | Y | Y | | | Possible breeder | One individual heard calling within Development Parcel A, alongside the eastern hedgerow. Recorded the same individual flying into the adjacent arable field. | Farmland specialist/water bird |
| Lesser whitethroat | <i>Sylvia curruca</i> | | | | | | Probable breeder | Multiple individuals heard singing simultaneously, including territory defence displays. Recorded along the western hedgerow and southern treeline of Development Parcel C. | Mosaic, scrub and reedbed specialist |

| Species | | WCA 1981 | NERC Act | BoCC | | | | | |
|---|----------------------------|----------|----------|----------|-------|-------|-----------------------------|--|-------------------------------|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | Breeding Status on the Site | Activity on the Site | Bird Community Type |
| Linnet | <i>Carduelis cannabina</i> | | Y | Y | | Y | Probable breeder | Multiple pairs recorded within the arable farmland in Development Parcel A, including males singing. Pairs observed perched on the edge of the eastern hedgerow adjacent to the arable land. | Farmland specialist |
| Long-tailed tit | <i>Aegithalos caudatus</i> | | | | | | Confirmed breeder | Multiple long-tailed tit parties recorded in both Development Parcel E and B on three visits. | Urban fringe and garden birds |
| Magpie | <i>Pica pica</i> | | | | | | Possible breeder | Multiple individuals recorded in all areas of the Site. | Urban fringe and garden birds |
| Mistle thrush | <i>Turdus viscivorus</i> | | | Y | | | Possible breeder | Two individuals recorded singing along a tree line to the north of Development Parcel B | Farmland specialist |
| Peregrine falcon | <i>Falco peregrinus</i> | Y | | | | Y | Possible breeder | One individual recorded on two survey visits. One observed flying across the Site, the second recorded diving for prey within Development Parcel A on another visit. Confirmed breeder within Power Station complex only and not within the Survey Area. | Specialised raptor |
| Pheasant | <i>Phasianus colchicus</i> | | | | | | Confirmed breeder | Multiple males recorded crooning and gliding across both Development Parcel A and Development Parcel B. Two instances where females have been recorded with young. | Farmland specialist |
| Pied wagtail | <i>Motacilla alba</i> | | | | | | Possible breeder | Recorded foraging in pairs in Development Parcel A. No obvious breeding behaviour. | Urban fringe and garden birds |

| Species | | WCA 1981 | NERC Act | BoCC | | | | | |
|---|-----------------------------|----------|----------|----------|-------|-------|-----------------------------|--|--|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | Breeding Status on the Site | Activity on the Site | Bird Community Type |
| Reed bunting | <i>Emberiza schoeniclus</i> | | Y | | Y | Y | Probable breeder | Multiple individuals recorded singing. Pairs observed together in Development Parcel E on separate visits. One pair observed commuting along the eastern hedgerow of Development Parcel E. Individuals observed flying across the arable land In Development Parcel A. | Mosaic, scrub and reedbed specialist / Farmland specialist |
| Red-legged partridge | <i>Alectoris rufa</i> | | | | | | Confirmed breeder | Multiple pairs observed in Development Parcel B and Development Parcel A, particularly scouting the perimeter of Development Parcel A's arable land. Females recorded with young. | Farmland specialist |
| Robin | <i>Erithacus rubecula</i> | | | | | | Probable breeder | Birds recorded singing in the same location on multiple survey visits. Present throughout suitable habitat within the Survey Area. | Urban fringe and garden birds |
| Rook | <i>Corvus frugilegus</i> | | | | | | Confirmed breeder. | Large colony of birds perched along the overhead line at the south of the Survey Area. Young birds recorded. | Urban fringe and garden birds |
| Song thrush | <i>Turdus philomelos</i> | | Y | Y | | Y | Possible breeder | Multiple birds recorded singing in scrub and wooded area within Development Parcel A and C. | Urban fringe and garden birds |
| Starling | <i>Sturnus vulgaris</i> | | Y | Y | | Y | Possible breeder | Multiple pairs observed flying over Development Parcel E towards the south of the Power Station. Possible breeding off Site but using the Survey Area for foraging | Urban fringe and garden birds |
| Skylark | <i>Alauda arvensis</i> | | Y | Y | | Y | Probable breeder | One pair recorded within Development Parcel A and part of the arable land immediately east. Two individual males performing song flight on | Farmland specialist |

| Species | | WCA 1981 | NERC Act | BoCC | | | | | |
|---|-------------------------------|----------|----------|----------|-------|-------|-----------------------------|---|--------------------------------------|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | Breeding Status on the Site | Activity on the Site | Bird Community Type |
| | | | | | | | | separate occasions. One pair recorded on separate occasions to the north of Area B. | |
| Sparrowhawk* | <i>Accipiter nisus</i> | | | | | | Possible breeder | One individual seen perched on a branch at the north-eastern corner of the Survey Area in Developmn C. Suitable habitat for nesting within Area B and C. | Woodland specialist |
| Tawny owl* | <i>Strix aluco</i> | | | | Y | | Possible breeder | One male tawny owl recorded perched above a telegraph post to the south of the Survey Area and calling. Female heard in the distance. Some mature trees are present within the Survey Area which could provide suitable nesting habitat. | Woodland specialist |
| Treecreeper | <i>Certhia familiaris</i> | | | | Y | | Possible breeder | One individuel observed creeping up tree within a hedgerow along the western boundary of Area A. Appeared to display foraging activity. | Woodland specialist |
| Whitethroat | <i>Sylvia communis</i> | | | | | | Confirmed breeder | Multiple individuals singing simultaneously. Territorial defence recorded within a hedgerow to the west of arable farmland in Area A. Male singing in the same location on three visits. Individuals singing in scrub and tree lines in Area B and E. | Mosaic, scrub and reedbed specialist |
| Willow warbler | <i>Phylloscopus trochilus</i> | | | | Y | | Confirmed breeder | One bird observed within Development Parcel E on second survey, one pari observed in same area on third survey. | Mosaic, scrub and reedbed specialist |
| Woodpigeon | <i>Columba palumbus</i> | | | | | | Confirmed breeder | Bird recorded carrying nesting material and singing in the same location on both survey visits, or simultaneously in multiple locations. | Urban fringe and garden birds |

| Species | | WCA 1981 | NERC Act | BoCC | | | Breeding Status on the Site | Activity on the Site | Bird Community Type |
|--|--------------------------------|----------|----------|----------|-------|-------|-----------------------------|--|-------------------------------|
| Common name (As per RSPB and BTO common names) | Scientific name | Schedule | Section | Red list | Amber | Selby | | | |
| Wren | <i>Troglodytes troglodytes</i> | | | | | | Probable breeder | Birds recorded throughout the Site in suitable habitat. Birds recorded singing simultaneously in different locations. | Urban fringe and garden birds |
| Yellowhammer | <i>Emberiza citronella</i> | | Y | Y | | Y | Confirmed breeder | Yellowhammer pairs recorded in various parts of the eastern hedgerows in Area A. Continuous singing recorded. Female recorded flying out of hedgerow. Yellow hammer recorded in same location on three visits. | Farmland specialist |

Table 4 - Birds recorded during the breeding bird survey but not considered to be breeding within the Survey Area

| Species | | WCA 1981 | NERC Act | BoCC | | | Activity on the Site | Bird Community Type |
|-------------------------------------|----------------------------|----------|----------|----------|-------|-------|---|---------------------|
| Common name | Latin name | Schedule | Section | Red list | Amber | Sleby | | |
| Species recorded in the Survey Area | | | | | | | | |
| Cormorant | <i>Phalacrocorax carbo</i> | | | | | | One individual flying over the Survey Area to the north-west. | Water bird |

| Species | | WCA 1981 | NERC Act | BoCC | | | | |
|---|-----------------------------------|----------|----------|----------|-------|-------|--|-------------------------------|
| Common name | Latin name | Schedule | Section | Red list | Amber | Sleby | Activity on the Site | Bird Community Type |
| Greylag goose | <i>Anser anser</i> | | | | Y | | Three individuals observed within Development Parcel A to the north. | Water bird |
| Grey heron | <i>Ardea cinerea</i> | | | | | | One individual observed flying out of Development Parcel A | Water bird |
| Black-headed gull | <i>Chroicocephalus ridibundus</i> | | | | Y | | Three individuals observed flying over Development Parcel A | Water bird |
| Swallow | <i>Hirundo rustica</i> | | | | | Y | Birds (<5) recorded in flight over the Site on two of the surveys visits | Urban fringe and garden birds |
| Swift | <i>Apus apus</i> | | | | Y | | Two birds recorded in flight over the Site on the third survey visit. | Urban fringe and garden birds |
| Species recorded outside the Survey Area | | | | | | | | |
| Canada goose | <i>Branta canadensis</i> | | | | | | Three individuals recorded within the pond at Drax Abbey Farm located outside of the Survey Area to the north-east | Water bird |
| Coot | <i>Fulica atra</i> | | | | | | A pair observed within pond at Drax Abbey Farm. | Water bird |

4 INTERPRETATION OF RESULTS

- 4.1.1 A total of 50 species were recorded within the Survey Area during the breeding bird survey. Of these, 13 were considered to be confirmed breeders, with 29 either probable or possible breeders and eight non-breeders. Of the confirmed breeding species, one is BoCC red and two are amber list species. Of the probable and possible breeders seven are BoCC red list and seven are amber list species.
- 4.1.2 A total of 21 species regarded as urban fringe and garden birds were recorded within the Survey Area, of which six are protected and notable birds. No species within this community are listed on Schedule 1 of the WCA 1981. These species were found across the extent of the Survey Area. House sparrow, starling, swift, swallow and house martin, which are typical urban nesting birds within buildings and houses, were not found to be nesting within buildings in the Survey Area.
- 4.1.3 Dunnock (BoCC Amber List) was widespread throughout the Survey Area with presence recorded within all Development Parcels. The species occupied two territories with the greatest prevalence to the north-east within habitat that will be retained.
- 4.1.4 Song thrush (BoCC Red List) was recorded throughout the Survey Area and occupied two territories. These territories were within Development Parcel E and close to proposed habitat clearance.
- 4.1.5 The song thrush has experienced a significant population decline which is thought to be a result of the loss and degradation of preferred feeding and nesting habitats. This has resulted in song thrush being placed on the BoCC red list. Grazed permanent pasture, woodland and hedgerow are important habitat for the breeding success of this species.
- 4.1.6 Nine species of birds regarded as woodland specialists were recorded within the Survey Area of which three are classed as protected and notable birds. These are bullfinch, treecreeper and tawny owl.
- 4.1.7 Bullfinch are BoCC amber listed and were classified as probable breeders. Bullfinch are typically associated with woodlands but are known to occupy large hedgerows and wooded areas. Bullfinch species occupied three territories within the Survey Area, of which one was located within a wooded section within Development Parcel E. This is within an area of proposed habitat clearance.
- 4.1.8 Tawny owl is a BoCC amber listed species and was incidentally recorded to the south of the Survey Area on a telegraph pole within a horizontal strip of mixed woodland. The woodland to the south of Development Parcel A is to be retained by the Proposed Scheme. Nesting suitability is absent within Development Parcel E.
- 4.1.9 Treecreeper is a BoCC amber listed species and was recorded on a tree within the hedgerow running along the western boundary of Development Parcel A. Trees within Development Parcel A and B are suitable nesting sites for treecreeper. However, these habitats are to be retained as part of the Proposed Scheme. Five mosaic, scrub and reedbed specialists were recorded within the Survey Area. These species comprised whitethroat, lesser whitethroat, garden warbler, willow warbler and reed bunting. Of these four species, reed bunting and willow warbler are protected and notable species.

- 4.1.10 Five mosaic, scrub and reedbed specialists were recorded within the Survey Area. These species comprised whitethroat, lesser whitethroat, garden warbler, willow warbler and reed bunting. Of these four species, reed bunting and willow warbler are protected and notable species.
- 4.1.11 Reed bunting were identified to be using reedbed, scrub and hedgerow habitats within Development Parcel A, E and C. This species is SPI and amber listed on the BoCC. This species uses a variety of habitats but usually breeds and forages within scrub, hedgerow and wetland. Reed bunting have experienced population declines in recent years. Reed bunting occupied one territory within the Survey Area, this was within an area of scrub / reedbed within Development Parcel E which would be lost as part of the Proposed Scheme.
- 4.1.12 Willow warbler was recorded on two separate occasions in the same patch of alder and willow scrub, within Development Parcel E. This is a species listed on BoCC amber list and has experienced a contraction of its range and a decline in the United Kingdom. This species is known for using scrub of birch and willow. Willow warbler occupied one breeding territory during the survey, this territory was in habitat that would be cleared as part of the Proposed Scheme.
- 4.1.13 Seven farmland specialists were recorded within the Survey Area. These were, yellowhammer, reed bunting, lapwing, pheasant, red-legged partridge, kestrel, skylark and linnet. Of these species, yellowhammer, lapwing, skylark, reed bunting and linnet are protected and notable species.
- 4.1.14 Yellowhammer was recorded exclusively within Development Parcel A, singing and calling within hedgerows on the east and west of the land parcel. Yellowhammer is a BoCC red list species and also a SPI. It is a typical farmland specialist and breeds within hedgerows and tall scrub within an arable landscape setting. Yellowhammer occupied two territories within Development Parcel A and was considered a confirmed breeder. The territory habitats will be retained by the Proposed Scheme.
- 4.1.15 Similar to yellowhammer, skylark is a typical farmland bird species breeding and foraging almost exclusively within farmland habitats and nesting on the ground. However, in recent years skylark populations have declined due to change in farming methodologies and subsequent alteration in habitat features needed for nesting and foraging. This species shares the same protection as yellowhammer. Two territories were recorded during the breeding bird survey, of these territories one was recorded within Development Parcel A slightly south of the yellowhammer territory but slightly larger. Skylark was recorded foraging and displaying in both Development Parcel A and the arable land to the east which provides suitable habitat for skylark. The arable land within Development Parcel A is to be cleared as part of the proposed scheme.
- 4.1.16 Kestrel is a BoCC amber list species due to moderate decline in its numbers in recent years. Kestrel individuals were recorded foraging over and perched within Development Parcel A. One individual was also recorded perched on an overhead line tower to the south of Development Parcel A next to a corvid nest. Kestrel's are known for using old nests of crows and ravens (*Corvus corax*). This may suggest the kestrel has or is using the old nest, however kestrels tend to occupy large home ranges and may just use Development Parcel A as a foraging ground. The arable land within Development Parcel A will be subject to clearance as part of the Proposed Scheme.

- 4.1.17 Linnet is a bird usually recorded along farmland borders within hedgerows but also occurs on heathland and saltmarshes. This species is a BoCC red list species and is also a SPI. One territory was recorded during the breeding bird survey, located within Development Parcel A along the eastern hedgerow. This hedgerow will be retained by the Proposed Scheme but the farmland will be subject to clearance.
- 4.1.18 An individual lapwing was recorded within Development Parcel A, this was observed walking along the ground alongside the hedgerow to the north east. The lapwing is a water bird that is often recorded within or in proximity to farmland and open country habitats. Lapwing is a species listed on BoCC red list and is also a SPI. Very little activity was recorded from lapwing and so breeding confirmation is difficult to ascertain, hence why it is classified as possible breeder.
- 4.1.19 Besides lapwing, six other water birds were recorded during the breeding bird survey. These were coot, Canada goose, cormorant, greylag goose, grey heron and black-headed gull. Of these species, black-headed gull and greylag goose are protected and notable species. Canada goose is a bird species listed on Schedule 9 of the WCA 1981 as an invasive non-native species.
- 4.1.20 Greylag goose and black-headed gull are BoCC amber list species. Three greylag geese were recorded within Development Parcel A and three black-headed gulls were recorded flying over Development Parcel A. Both species are associated with water and nest on the ground (black-headed gulls are also associated with cliff edges and buildings). For greylag geese, nesting usually takes place around lakes, waterbodies and marshy vegetation near water. Black-headed gulls exhibit the same nesting characteristics but have been recorded nesting on buildings and foraging in arable lands. Due to nesting characteristics, these species are unlikely to breed within this area.
- 4.1.21 Peregrine falcon was the only specialised raptor species recorded during the breeding bird survey. An individual peregrine falcon was recorded on two occasions during the breeding bird survey. Due to its specialist hunting, nesting and diet characteristics the peregrine falcon is a raptor specially adapted to predating on small passerines and pigeons on the wing and can be found across a variety of habitats. They typically nest high up on cliffs, buildings and other infrastructure. This species was recorded hunting, displaying its typical diving behaviour on both occasions. Both observations were recorded within the Survey Area. One within Development Parcel E and one within Development Parcel A. Peregrine falcon is a bird listed on Schedule 1 of WCA 1981. This makes it an offence to intentionally or recklessly disturb an active nest site which includes the breeding territory within which the bird occupies. Due to the specific nesting requirements of peregrine falcons, it is unlikely that the species is nesting within the Survey Area, although, the Survey Area is evidently used for foraging.
- 4.1.22 This breeding bird survey including its analysis and evaluation indicate that the Site supports a diverse community and is an important area for a range of breeding perching birds (Passeriformes) with protected and notable status and also a number of common and widespread species.
- 4.1.23 The breeding territory data recorded provides useful information on breeding bird hotspots and the parts of the Site that are most important areas for breeding birds as shown on Figure 3: Breeding Bird Territories.

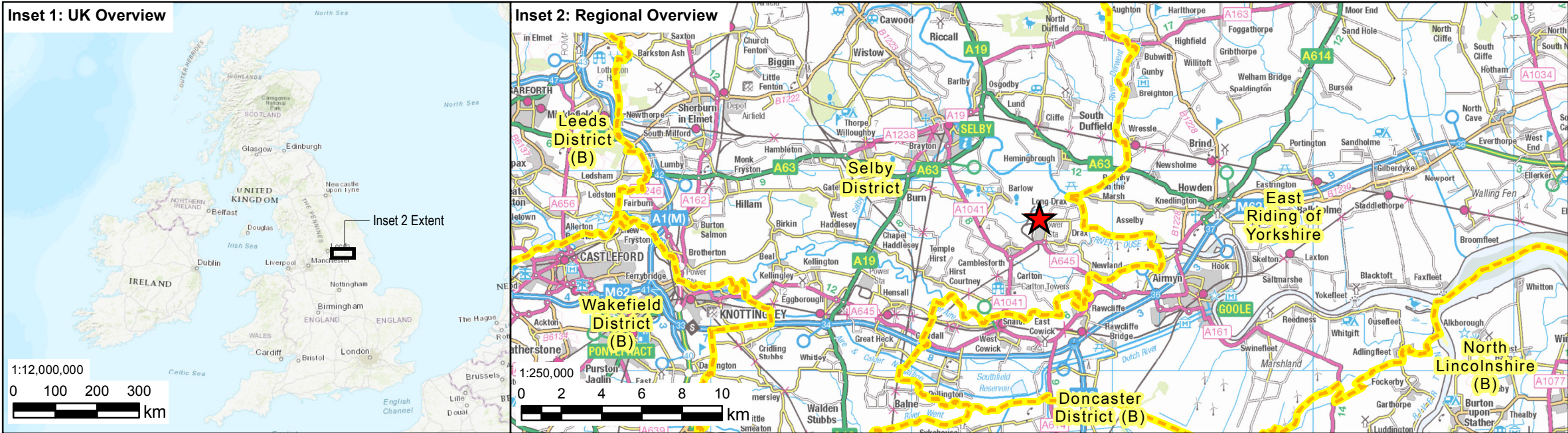
- 4.1.24 Site clearance is required to facilitate the Proposed Scheme. This will remove a mosaic of scrub, woodland, arable farmland, waterbody and grassland habitats with Development Parcels A, B, C, D and E. 47 breeding territories were held within and overlapping the Site Boundary by 23 bird species. Eight of these 23 species were protected and notable. It is estimated that approximately 15 territories throughout the Survey Area may be lost completely and at least 21 territories are likely to be affected by construction disturbance.

5 CONCLUSION

- 5.1.1 In summary, the Survey Area comprised a range of habitats with a diverse array of bird species of varying communities. The overarching bird community is made up of both widespread bird species and protected and notable. The Survey Area supports urban fringe and garden birds, farmland specialists, woodland specialists, mosaic, scrub and reedbed specialists, water birds and specialised raptors.
- 5.1.2 This breeding bird survey demonstrates that the majority of habitats within the Survey Area, particularly the habitats within the Materials Handling area of Development Parcel E and the arable farmland east of the Power Station (Development Parcel A), provide a valuable environment for breeding birds in the local area. The habitat periphery of Development Parcel B is also valuable to breeding birds. Of the protected and notable species recorded within the Survey Area eight are BoCC red list species, 10 are BoCC amber list species, nine SPI and 10 Selby LBAP species will be indirectly affected by the Proposed Scheme. Of the BoCC red list species skylark, song thrush and linnet will be affected. Of the BoCC amber list species, reed bunting, willow warbler, dunnoek and bullfinch will be affected. These species will be affected due to Site clearance, effectively removing suitably habitat and the disturbance from construction activates proposed within Development Parcel A, B and C and E. All breeding territories recorded within Development Parcels E and C (east) will likely be lost as a result of the Proposed Scheme.
- 5.1.3 The outcome of the breeding bird survey indicates that a range of species are occupying most of the habitats in the northern section of the Site (Development Parcels A, B, C, D and E). The evaluation of the survey results suggest that a small number of protected and notable species are occupying breeding territories within these areas. Disturbance from Site clearance during the construction stage will affect a number of breeding birds and their respective breeding territories as reported in Section 4. A precautionary approach to the assessment of significant impacts and effects on breeding birds was taken in the ES; this assessment remains accurate and is somewhat conservative given the outcome of the breeding bird survey.
- 5.1.4 This report should be read in conjunction with Chapter 9 (Biodiversity) of the ES (Examination Library Reference: APP-077) which details both direct and indirect effects of the Proposed Scheme on the breeding bird assemblages and communities within the Survey Area. Mitigation, avoidance and compensation measures for breeding birds (where appropriate) are detailed in the ES. These measures are considered to remain appropriate in light of the results of the breeding bird survey and the interpretation made in this report.

6 REFERENCES

- Ref 1: WSP (2018). Drax Repower Project. Environmental Statement, Chapter 9 – Biodiversity. Document Ref. 6.1.9. Examination Library Reference: APP-077.
- Ref 2: WSP (2017). Drax Repower Project. Preliminary Ecological Appraisal. Document Ref. 6.2.9.3 Environmental Statement – Volume 2 – Appendix 9.3. Examination Library Reference: APP-109.
- Ref 3: WSP (2018). Drax Repower Project. Wintering Bird Survey. Document Ref 6.2.9.7 Environmental Statement – Volume 2 – Appendix 9.7. Examination Library Reference: APP-113.
- Ref 4: EMC (2014) White Rose Carbon Capture and Storage Project.
- Ref 5: Her Majesty's Stationary Office (HMSO) (2017). Conservation of Habitats and Species Regulations.
- Ref 6: HMSO (1981). Wildlife and Countryside Act (as amended by the Countryside and Rights of Way Act 2000).
- Ref 7: HMSO (2006). Natural Environment and Rural Communities (NERC) Act.
- Ref 8: The UK Biodiversity Action Plan; available online at: <http://jncc.defra.gov.uk/page-5155>. [Accessed: September 2018].
- Ref 9: The UK Post-2010 Biodiversity Framework; available online at: <http://jncc.defra.gov.uk/page-6189>. [Accessed: September /2018]
- Ref 10: Eaton, M.A, Aebischer, N.J., Brown, A.F., Hearn, R., Lock, L, Musgrove, A.J., Noble, D., Stroud, S. & Gregory, R.D.F (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. British Birds 108; pp708-7456.
- Ref 11: Department for Communities and local Government (2018). National Planning Policy Framework (NPPF).
- Ref 12: Office of the Deputy Prime Minister (ODPM) (2005) Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System.
- Ref 13: Selby District Local Plan (SDLP) (2005).
- Ref 14: The Selby District Core Strategy Local Plan (2013).
- Ref 15: Bibby, C.J, Burgess, N.D, Hill, D.A, Mustoe, S.H. (2000). Bird Census Techniques. Second Edition. Elsevier Ltd
- Ref 16: Bibby, C. and Francis, I. (ND) Best Practice Guidance Notes. Rare Breeding Bird Panel, East Lothian.
- Ref 17: Yorkshire Nationalist Union (2014) Yorkshire Bird Report.
- Ref 18: Department for Energy and Climate Change (DECC), 2011, National Policy Statement for Energy EN-.1, HMSO.
- Ref 19: Department for Energy and Climate Change (DECC), 2011b, National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4), HMSO
- Ref 20: Marchant, J.H. (1983). Common Birds Census instructions. BTO, Tring. 12pp.
- Ref 21: Selby Local Biodiversity Action Plan (2004); available online at <https://www.selby.gov.uk/biodiversity-action-plan> [Accessed September 2018]



Key
[Red Outline] Site Boundary

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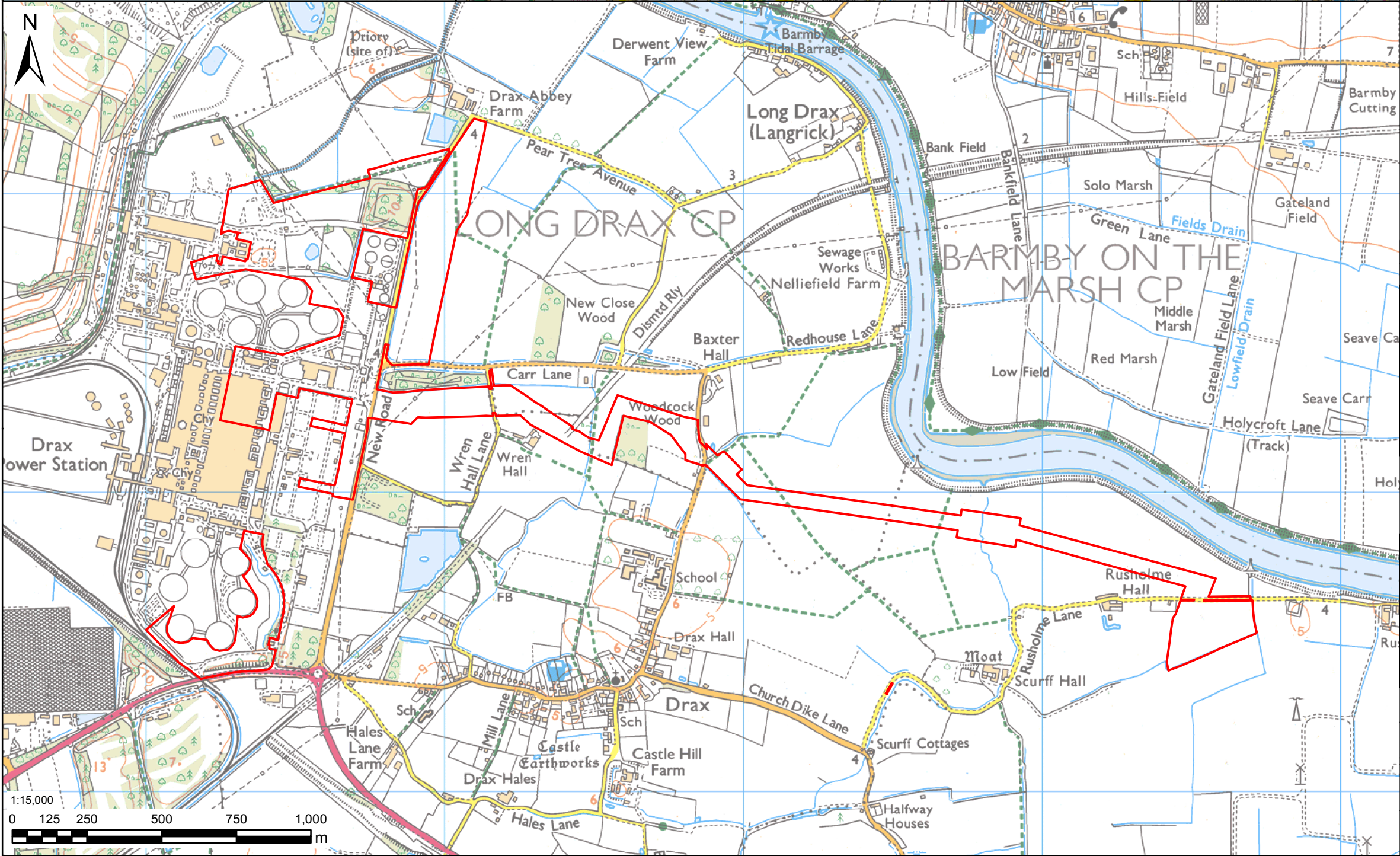
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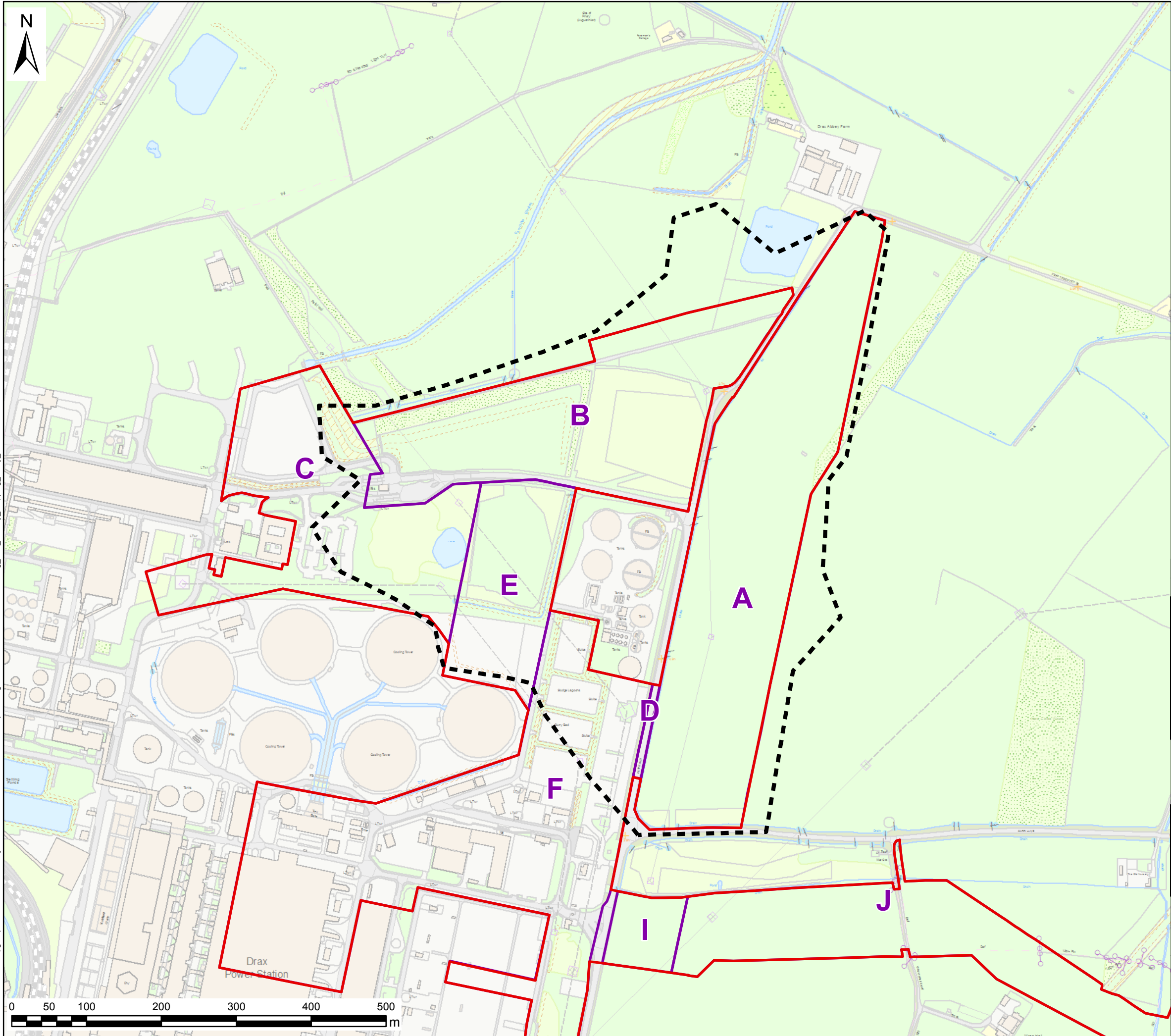
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Key

- Site Boundary
- Development Parcels
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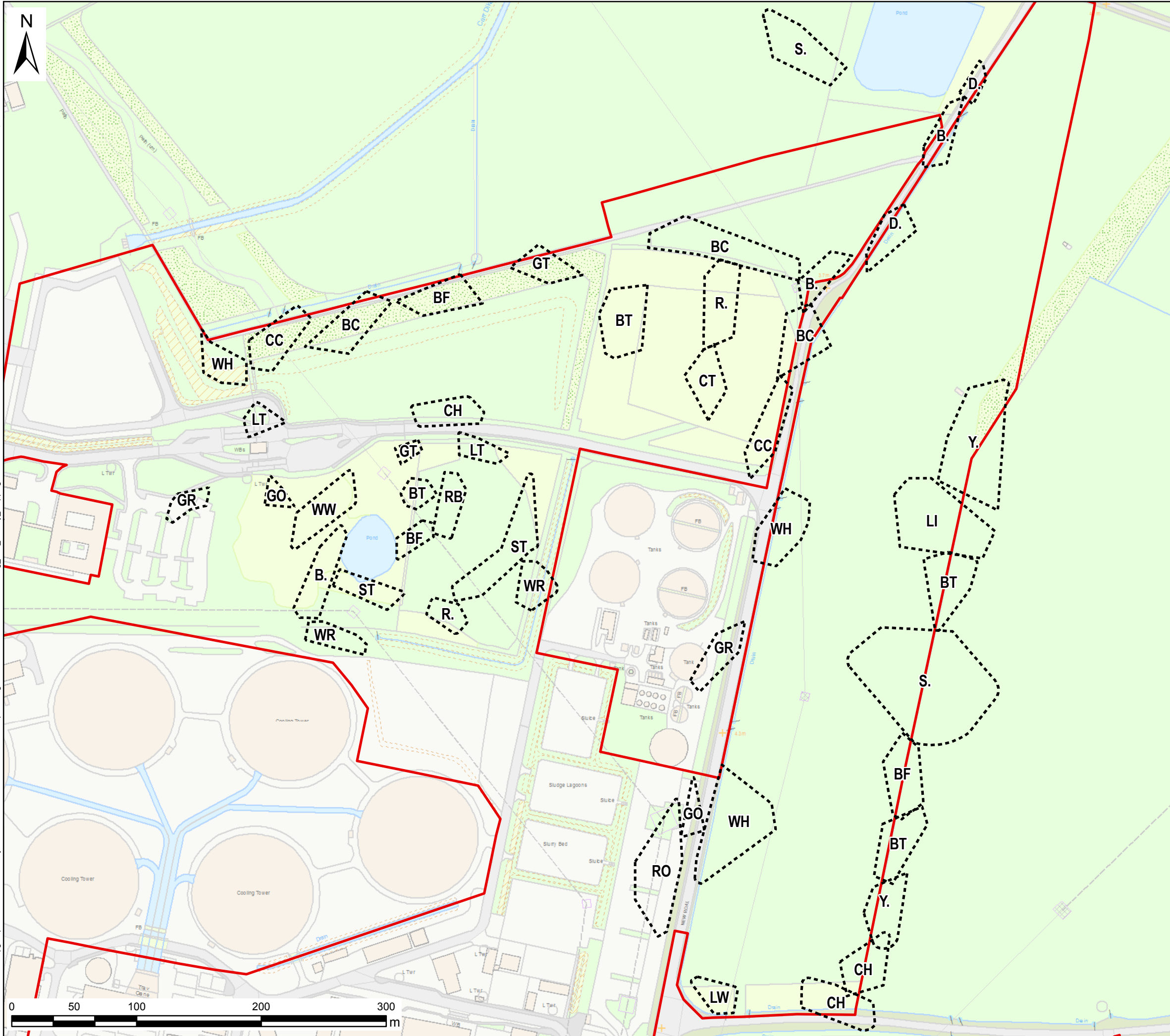
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Breeding Bird Survey Area

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Key

Site Boundary

Breeding Bird Territories

Blackbird (B.)
Blackcap (BC)
Bullfinch (BF)
Blue Tit (BT)
Chiffchaff (CC)
Chaffinch (CH)
Coal Tit (CT)
Dunnock (D.)
Goldfinch (GO)
Greenfinch (GR)
Great Tit (GT)
Linnet (LI)
Long-tailed Tit (LT)
Lesser Whitethroat (LW)
Robin (R.)
Reed Bunting (RB)
Rook (RO)
Skylark (S.)
Song Thrush (ST)
Whitethroat (WH)
Wren (WR)
Willow Warbler (WW)
Yellowhammer (Y.)

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Figure 3
Breeding Bird Territories

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APPENDIX A - BTO SPECIES CODES

BTO Codes

| | | | | | | | |
|-----------|----------------------|-----------|--------------------------|-----------|--------------------|-----------|--------------------|
| AC | Arctic Skua | GA | Gadwall | LE | Long-eared owl | SM | Sand martin |
| AE | Artic Tern | GX | Gannet | LT | Long-tailed tit | SS | Sanderling |
| AV | Avocet | GW | Garden warbler | MG | Magpie | TE | Sandwich tern |
| BO | Barn Owl | GY | Garganey | MA | Mallard | VI | Savi's warbler |
| BY | Barnacle goose | GC | Goldcrest | MN | Mandarin duck | SQ | Scarlet rosefinch |
| BA | Bar tailed godwit | EA | Golden eagle | MX | Manx shearwater | SP | Scaup |
| BR | Bearded tit | OL | Golden oriole | MR | Marsh harrier | CY | Scottish crossbill |
| BS | Bewick's swan | GF | Golden pheasant | MT | Marsh tit | SW | Sedge warbler |
| BI | Bittern | GP | Golden plover | MW | Marsh warbler | NS | Serin |
| BK | Black grouse | GN | Goldeneye | MP | Meadow pipit | SA | Shag |
| TY | Black guillemot | GO | Goldfinch | MU | Mediterranean gull | SU | Shelduck |
| BX | Black redstart | GD | Goosander | ML | Merlin | SX | Shorelark |
| BJ | Black tern | GI | Goshawk | M. | Mistle thrush | SE | Short-eared owl |
| B. | Blackbird | GH | Grasshopper warbler | MO | Montagu's harrier | SV | Shoveler |
| BC | Blackcap | GB | Great black backed gull | MH | Moorhen | SK | Siskin |
| BH | Black headed gull | GG | Great crested grebe | MS | Mute swan | S. | Skylark |
| BN | Black-necked grebe | ND | Great northern diver | N. | Nightingale | SZ | Slavonian grebe |
| BW | Black tailed godwit | NX | Great skua | NJ | Nightjar | SN | Snipe |
| BV | Black-throated diver | GS | Great spotted woodpecker | NH | Nuthatch | SB | Snow bunting |
| BT | Bluetit | GT | Great tit | OP | Osprey | ST | Song thrush |
| BU | Bluethroat | GE | Green sandpiper | OC | Oystercatcher | SH | Sparrowhawk |
| BL | Brambling | G. | Green woodpecker | PX | Peafowl/Peacock | AK | Spotted crane |

| | | | | | | | |
|-----------|--------------------|-----------|-----------------------|-----------|------------------------|-----------|--------------------|
| BG | Brent goose | GR | Greenfinch | PE | Peregrine | SF | Spotted flycatcher |
| BF | Bullfinch | GK | Greenshank | PH | Pheasant | DR | Spotted redshank |
| BZ | Buzzard | H. | Grey heron | PF | Pied flycatcher | SG | Starling |
| CG | Canada goose | P. | Grey partridge | PW | Pied wagtail | SD | Stock dove |
| CP | Capercaillie | GV | Grey plover | PG | Pink footed goose | SC | Stonechat |
| C. | Carrion crow | GL | Grey wagtail | PT | Pintail | TN | Stone-curlew |
| CW | Cetti's warbler | GJ | Greylag goose | PO | Pochard | TM | Storm petrel |
| CH | Chaffinch | GU | Guillemot | PM | Ptarmigan | SL | Swallow |
| CC | Chiffchaff | FW | Guineafowl (helmeted) | PU | Puffin | SI | Swift |
| CF | Chough | HF | Hawfinch | PS | Purple sandpiper | TO | Tawny owl |
| CL | Cirl bunting | HH | Hen harrier | Q. | Quail | T. | Teal |
| CT | Coal tit | HG | Herring gull | RN | Raven | TK | Temminck's stint |
| CD | Collared dove | HY | Hobby | RA | Razorbill | TP | Tree pipit |
| CM | Common gull | HZ | Honey buzzard | RG | Red grouse | TS | Tree sparrow |
| CS | Common sandpiper | HC | Hooded crow | KT | Red kite | TC | Treecreeper |
| CX | Common scoter | HP | Hoopoe | ED | Red backed shrike | TU | Tufted duck |
| CN | Common tern | HM | House martin | RM | Red-breasted merganser | TT | Turnstone |
| CO | Coot | HS | House sparrow | RQ | Red-crested pochard | TD | Turtle dove |
| CA | Cormorant | JD | Jackdaw | FV | Red-footed falcon | TW | Twite |
| CB | Corn bunting | J. | Jay | RL | Red-legged partridge | WA | Water rail |
| CE | Corncrake | K. | Kestrel | NK | Red-necked phalarope | W. | Wheatear |
| CI | Crested tit | KF | Kingfisher | LR | Redpoll (lesser) | WM | Whimbrel |
| CR | Crossbill (common) | KI | Kittiwake | RK | Redshank | WC | Whinchat |

| | | | | | | | |
|-----------|---------------------------|-----------|---------------------------|-----------|-----------------------|-----------|---------------------|
| CK | Cuckoo | KN | Knot | RT | Redstart | WG | White-fronted goose |
| CU | Curlew | LM | Lady Amhurst's pheasant | RH | Red-throated diver | WH | Whitethroat |
| DW | Dartford warbler | LA | Lapland bunting | RE | Redwing | WS | Whooper swan |
| DI | Dipper | L. | Lapwing | RB | Reed bunting | WN | Widgeon |
| DO | Dotterel | TL | Leach's petrel | RW | Reed warbler | WT | Willow tit |
| DN | Dunlin | LB | Lesser black-backed gull | RZ | Ring ouzel | WW | Willow warbler |
| D. | Dunnock | LS | Lesser spotted woodpecker | RP | Ringed plover | OD | Wood sandpiper |
| EG | Egyptian goose | LW | Lesser whitethroat | RI | Ring-necked parakeet | WO | Wood warbler |
| E. | Eider | LI | Linnet | R. | Robin | WK | Woodcock |
| FP | Feral Pigeon | ET | Little egret | DV | Rock dove (not feral) | WL | Woodlark |
| ZL | Feral/hybrid goose | LG | Little grebe | RC | Rock pipit | WP | Woodpigeon |
| ZF | Feral/hybrid mallard type | LU | Little gull | RO | Rook | WR | Wren |
| FF | Fieldfare | LO | Little owl | RS | Roseate tern | WY | Wryneck |
| FC | Firecrest | LP | Little ringed plover | RY | Ruddy duck | YW | Yellow wagtail |
| F. | Fulmar | AF | Little tern | RU | Ruff | Y. | Yellowhammer |