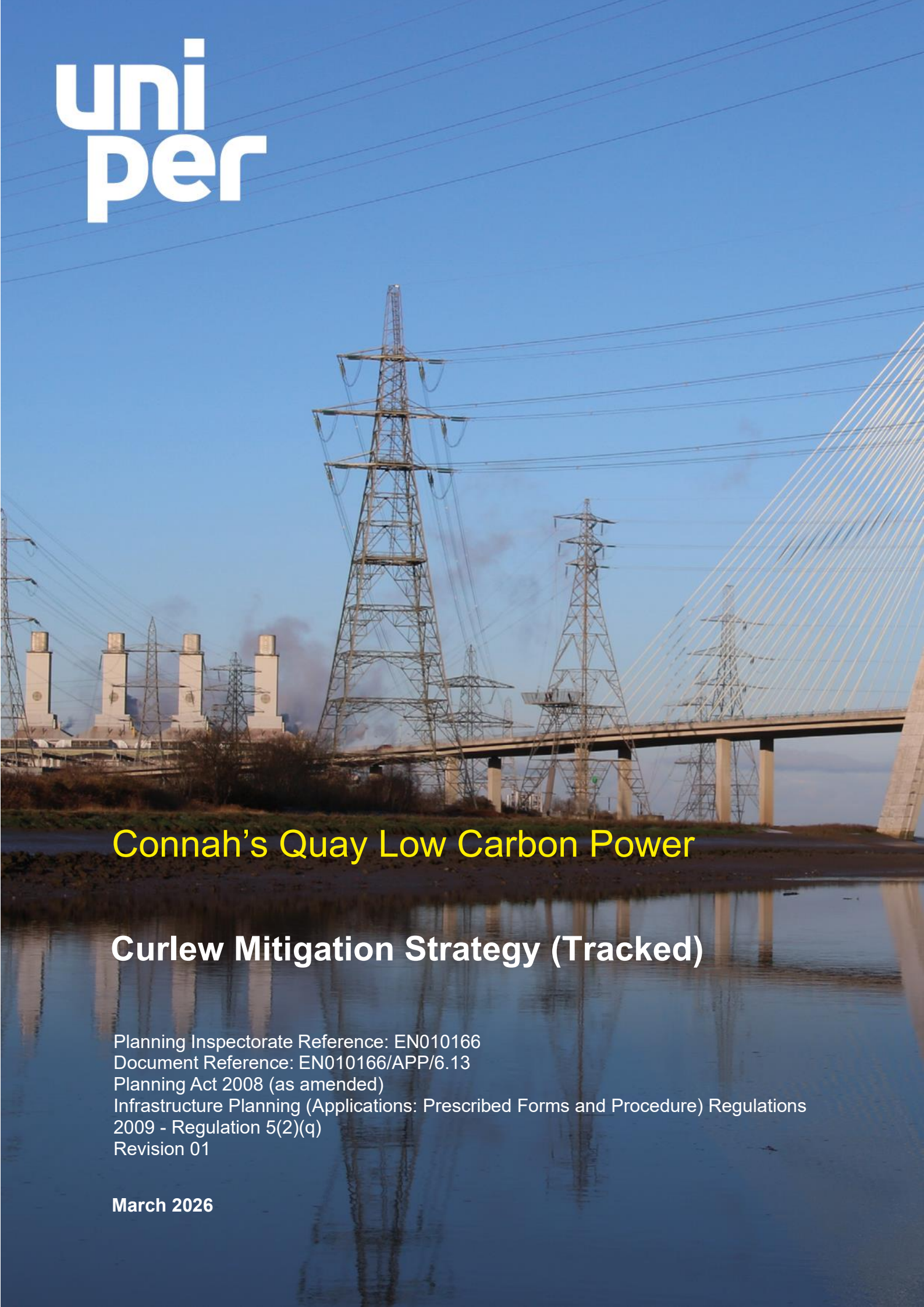

Connah's Quay Low Carbon Power

Curlew Mitigation Strategy (Tracked)

Planning Inspectorate Reference: EN010166
Document Reference: EN010166/APP/6.13
Planning Act 2008 (as amended)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 - Regulation 5(2)(q)
Revision 01

March 2026

Prepared for:
Uniper UK Limited

Prepared by:
AECOM Limited

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1. Introduction

1.1 Overview

1.1.1 This strategy document provides details of the offsetting measures for Curlew (*Numenius arquata*) associated with the Dee Estuary / Aber Dyfrdwy Special Protection Area (SPA) / Ramsar site. These offsetting measures are required to compensate for the loss of Functionally Linked Land[1] (FLL) used by Curlew within the Order limits (and more specifically the Main Development Area). Where appropriate, the strategy also considers other qualifying bird species of the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site.

1.1.2 This strategy document provides details of the location of an area of land out with the Order limits where a series of habitat creation and enhancements and management actions designed to provide optimal foraging and roosting habitat for Curlew will be provided. The strategy sets out:

- the aims and objectives;
- the details of the replacement Curlew habitats that needs to be delivered;
- information on the site selection process; ~~and~~
- details on the requirement for habitat and species monitoring necessary to demonstrate that the aims and objectives have been met~~, along with details relating to required water management.~~; and
- potential further enhancement opportunities should they be determined necessary through monitoring to meet the aims and objectives.

1.1.3 This document should be read in conjunction with the **Report to Inform Habitats Regulations Assessment** (**EN010166/APP/6.12**), **Green Infrastructure Statement** (**EN010166/APP/6.11**) **and Chapter 11: Terrestrial and Aquatic Ecology** (**EN010166/APP/6.2.11**) of the Environmental Statement (ES) Volume II.

1.1.4 The measures set out in this document are secured via Requirement 11 of the **Draft Development Consent Order** (**DCO**) (**EN010166/APP/3.1**). Requirement 11 identifies that a Curlew Mitigation and Monitoring Plan must be developed in general accordance with this strategy document and the enhancement measures must be in place prior to works commencing within the relevant areas of the Order limits.

1.2 The Proposed Development

1.2.1 Uniper UK Limited (the Applicant) is seeking a DCO for the construction, operation (including maintenance) and decommissioning of a proposed low carbon Combined Cycle Gas Turbine (CCGT) Generating Station fitted with

[1] Functionally Linked Land (FLL) is a term often used to describe areas of land or sea occurring outside a designated site which is critical to, or necessary for, the ecological or behavioural functions in a relevant season of a qualifying feature for which a Special Areas of Conservation (SAC), Special Protection Area (SPA) or Ramsar site has been designated. These habitats are frequently used by qualifying species and support the functionality and integrity of the designated sites for these features.

Carbon Capture Plant (CCP) (the Connah's Quay Low Carbon Power (CQLCP) Abated Generating Station) and supporting infrastructure (collectively the Proposed Development).

1.2.2 The CQLCP Abated Generating Station would comprise up to two CCGT with CCP units (and supporting infrastructure) achieving a net electrical output capacity of more than 350 megawatts (MW; referred to as MWe for electrical output) and up to a likely maximum of 1,380 MWe (with CCP operational) onto the national electricity transmission network.

1.2.3 Through a carbon dioxide (CO_2) pipeline, comprising existing and new elements the Proposed Development would make use of CO_2 transport and storage networks owned and operated by Liverpool Bay CCS Limited, currently under development as part of the HyNet Carbon Dioxide Pipeline project (referred to as the HyNet CO_2 Pipeline Project), that will transport CO_2 captured from existing and new industries in North Wales and North West England, for offshore storage. The captured CO_2 would be permanently stored in depleted offshore gas reservoirs in Liverpool Bay.

1.2.4 For the purposes of the electrical connection, National Grid Electricity Transmission plc (NGET), which builds and maintains the electricity transmission networks, is responsible for the operation and maintenance of the existing 400 kV NGET Substation.

1.2.5 A description of the Proposed Development, including details of maximum parameters, is set out in **Chapter 4: The Proposed Development** (**EN010166/APP/6.2.4**) of **ES Volume II**. At this stage in the development, the design of the Proposed Development incorporates a necessary degree of flexibility to allow for ongoing design development.

1.3 Legislative Context

1.3.1 As part of the assessment of a development, it is necessary to consider whether the development is likely to have a significant effect on areas that have been internationally designated for nature conservation purposes (i.e., European Sites). European sites are protected under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations). The United Kingdom (UK) left the European Union (EU) on 31 January 2020 under the terms set out in the European Union (Withdrawal Agreement) Act 2020 (the Withdrawal Act).

1.3.2 However, the most recent amendments to the Habitats Regulations – the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (2019 Regulations) – make it clear that the need for Habitats Regulations Assessment (HRA) continues to apply. Whilst those 2019 Regulations make changes to the Habitats regime and terminology; much of the impact of those changes does not yet have a practical effect, particularly the introduction of the term 'national site network', given the short passage of time since the end of the transition period. As such, this document continues to use the term 'European sites' to refer to all Natura 2000 sites potentially affected by the Proposed Development.

1.3.3 A detailed **Report to Inform Habitats Regulations Assessment** (**EN010166/APP/6.12**) has been undertaken and is included as part of the DCO submission.

2. Baseline

2.1 Overview

2.1.1 This section provides an overview of the location of the relevant components of the Proposed Development and provides baseline information in relation to the relevant designated sites and bird populations.

2.2 Location and Context

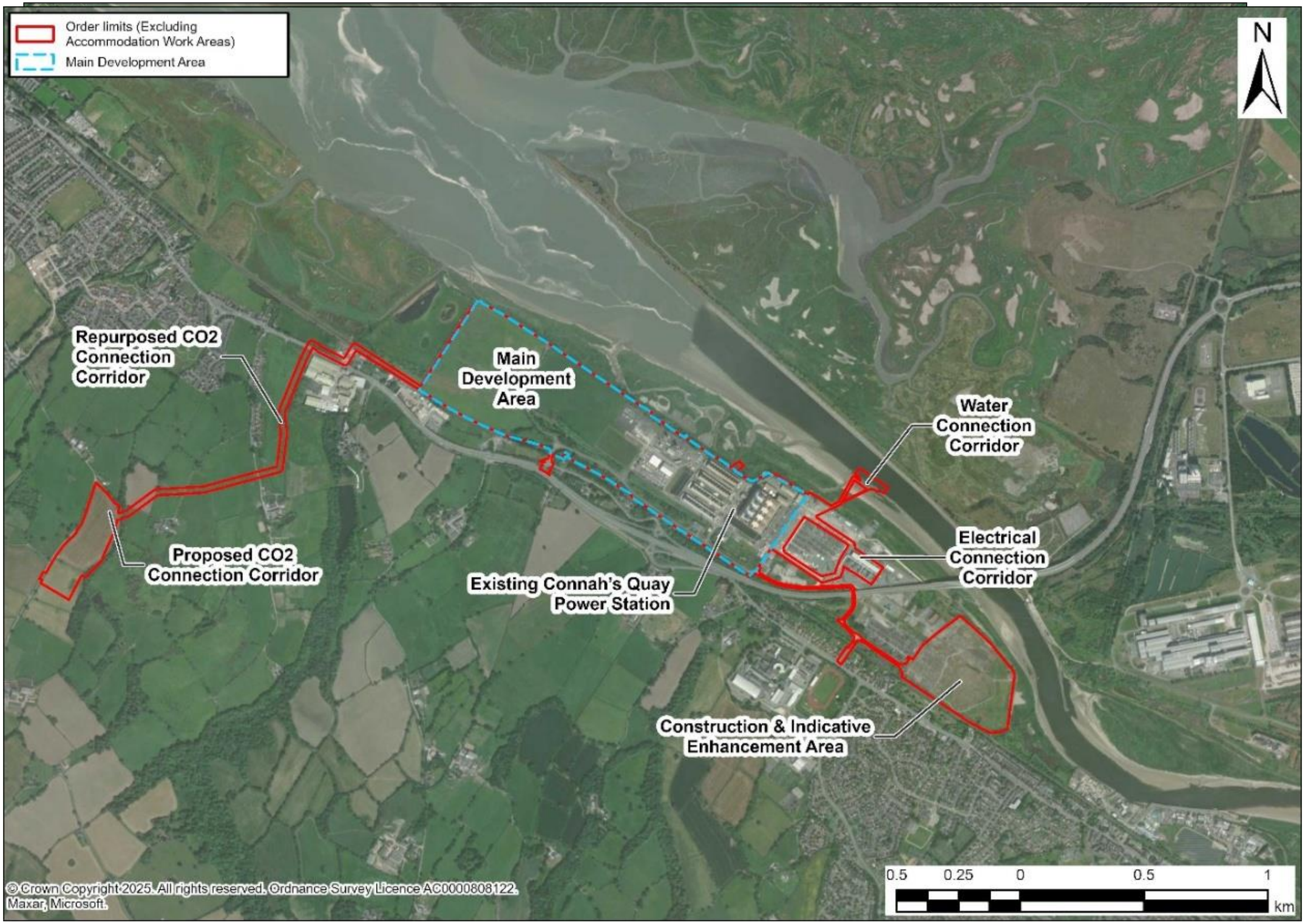
Location of the Proposed Development

2.2.1 The Order limits are located within Flintshire, Wales. **Figure 3-3: Areas identified in the ES** (**EN010166/APP/6.3**) provides an overview of the different components of the Proposed Development, within the Order limits, which are referenced throughout the Application. These comprise:

- The Construction and Operation Area:
  - Main Development Area;
  - Construction and Indicative Enhancement Area (C&IEA);
  - Water Connection Corridor;
  - Surface Water Outfall Area;
  - Proposed CO_2 Connection Corridor;
  - Repurposed CO_2 Connection Corridor;
  - Electrical Connection Corridor; and
  - Access to the Main Development Area.
- The Accommodation Work Areas.

2.2.2 The area of relevance to this document is the Main Development Area and is shown on **Plate 1**.

Plate 1: Main Development Area



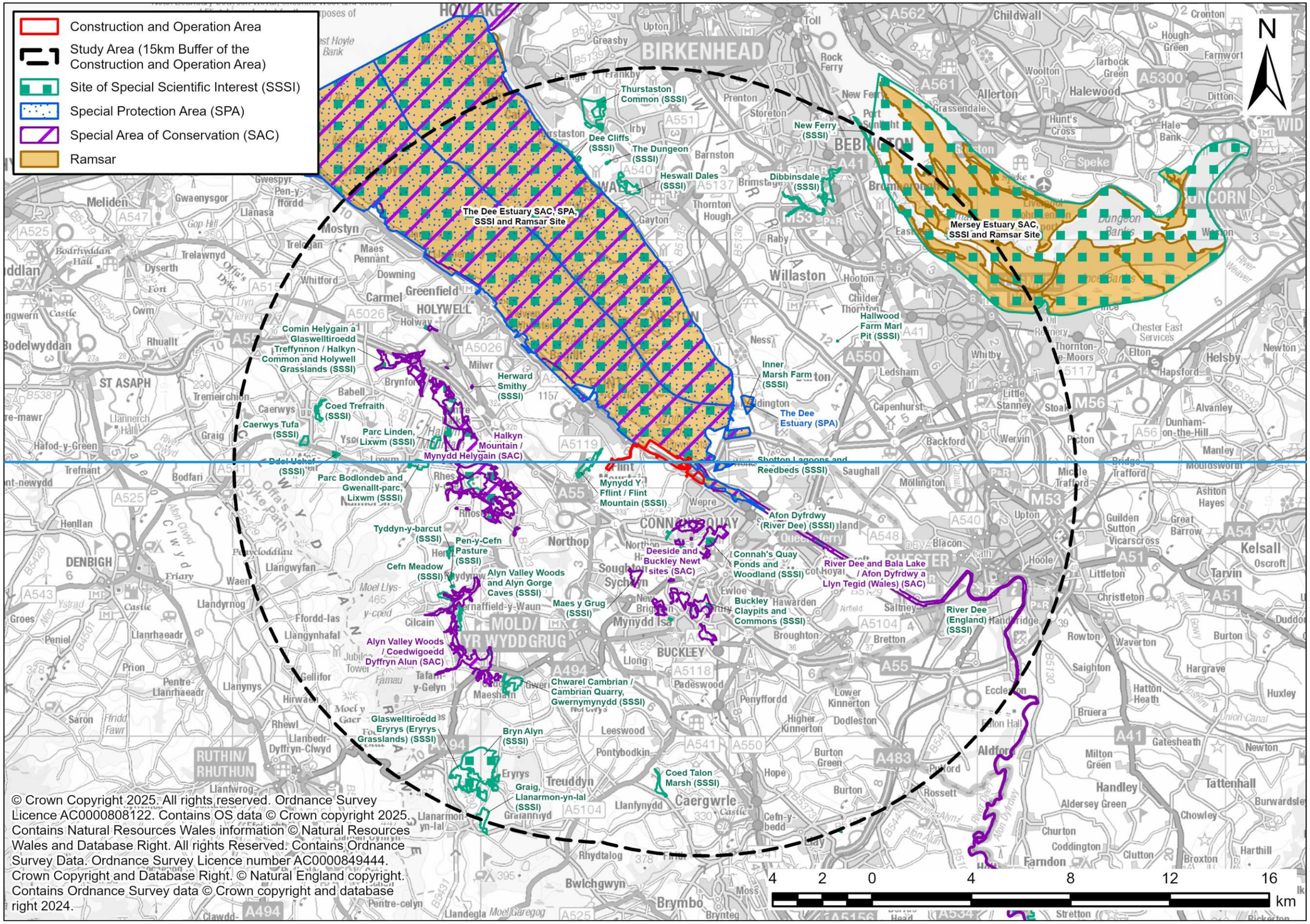
2.3 Main Development Area Context

2.3.1 The Main Development Area is located on land at, and in the vicinity of, the existing Connah's Quay Power Station (Kelsterton Road, Connah's Quay, Flintshire, CH6 5SJ), North Wales.

2.3.2 The Main Development Area which has an indicative area of ~~approximately~~ 56.~~5~~45 ha includes operational parts of the Applicant's existing Connah's Quay Power Station site to the south-east and agricultural fields to the north-west. It is these fields that are the focus of this document.

2.3.3 There are nine international and 30 national statutory designated sites within 15 km of the Main Development Area as shown on **Plate 2**. The Main Development Area is adjacent to the Dee Estuary /Aber Dyfrdwy SPA / Ramsar site.

Plate 2: Designated Sites



Construction and Operation Area
Study Area (15km Buffer of the Construction and Operation Area)
Site of Special Scientific Interest (SSSI)
Special Protection Area (SPA)
Special Area of Conservation (SAC)
Ramsar

The Dee Estuary SAC, SPA, SSSI and Ramsar Site
Mersey Estuary SAC, SSSI and Ramsar Site
Thurstaston Common (SSSI)
Dee Cliffs (SSSI)
The Dungeon (SSSI)
Heswall Dales (SSSI)
New Ferry (SSSI)
Dibbinsdale (SSSI)
Hallwood Farm Marl Pit (SSSI)
Inner Marsh Farm (SSSI)
The Dee Estuary (SPA)
Shotton Lagoons and Reedbeds (SSSI)
Afon Dyfrdwy (River Dee) (SSSI)
Connah's Quay Ponds and Woodland (SSSI)
River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (Wales) (SAC)
River Dee (England) (SSSI)
Deeside and Buckley Newt sites (SAC)
Buckley Claypits and Commons (SSSI)
Mynydd Y Fflint / Flint Mountain (SSSI)
Herward Smithy (SSSI)
Comin Helygain a'i Glaswelltiroedd Treffynnon / Halkyn Common and Holywell Grasslands (SSSI)
Coed Trefraith (SSSI)
Caerwys Tufa (SSSI)
Parc Linden, Lixwm (SSSI)
Halkyn Mountain / Mynydd Helygain (SAC)
Ddol Uchaf (SSSI)
Parc Bodiondeb and Gwenallt-parc, Lixwm (SSSI)
Tyddyn-y-barcut (SSSI)
Pen-y-Cefn Pasture (SSSI)
Cefn Meadow (SSSI)
Alyn Valley Woods and Alyn Gorge Caves (SSSI)
Maes y Grug (SSSI)
Alyn Valley Woods / Coedwigoedd Dyffryn Alun (SAC)
Chwarel Cambrian / Cambrian Quarry, Gwernymynydd (SSSI)
Glaswelltiroedd Eryrys (Eryrys Grasslands) (SSSI)
Bryn Alyn (SSSI)
Graig, Llanarmon-yn-Ial (SSSI)
Coed Talon Marsh (SSSI)

4 2 0 4 8 12 16 km

2.4 Baseline Ornithology Surveys

2.4.1 Baseline ornithology surveys have been completed in support of the Application, the results of which are presented in **Appendix 11-D: Ornithology Technical Appendix** (**EN010166/APP/6.4**) of ES Volume IV. Surveys to establish the use of the Survey Area, including the Main Development Area, by waterbirds, consisted of surveys in the 2022/2023 and 2023/2024 seasons, as detailed below:

- 2022/2023: Surveys were undertaken on behalf of the Applicant by Aspect Ecology between April 2022 and February 2023. These consisted of a single visit each month; and
- 2023/2024: surveys were undertaken on behalf of the Applicant by AECOM between November 2023 and October 2024. These consisted of one low tide (diurnal) and three high tide (one diurnal and two nocturnal [neap and spring]) visits each month ~~between November 2023 and October 2024 inclusive.~~ .

2.4.2 ~~These~~The 2022/2023 Aspect Ecology surveys ~~identified~~indicated that the fields to be used as a laydown area (in the intermediate term, see paragraph 2.4.5) during construction works and to be lost to the permanent footprint of the Proposed Development, could be used by important numbers of the non-breeding Curlew population associated with the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site. Further surveys were undertaken in 2023/2024 to consider whether the land could be considered to be functionally linked to the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site.

~~2.4.1~~2.4.3 The 2023/2024 surveys identified that the fields are used by important numbers of the non-breeding Curlew population associated with the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site (see **Table 1** and **Plate 3**). As such, these fields are considered to be functionally linked to the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site as they regularly support more than 1% of the qualifying non-breeding Curlew population of the SPA / Ramsar site. Mitigation is therefore required to avoid an adverse effect on the integrity of the designated sites.

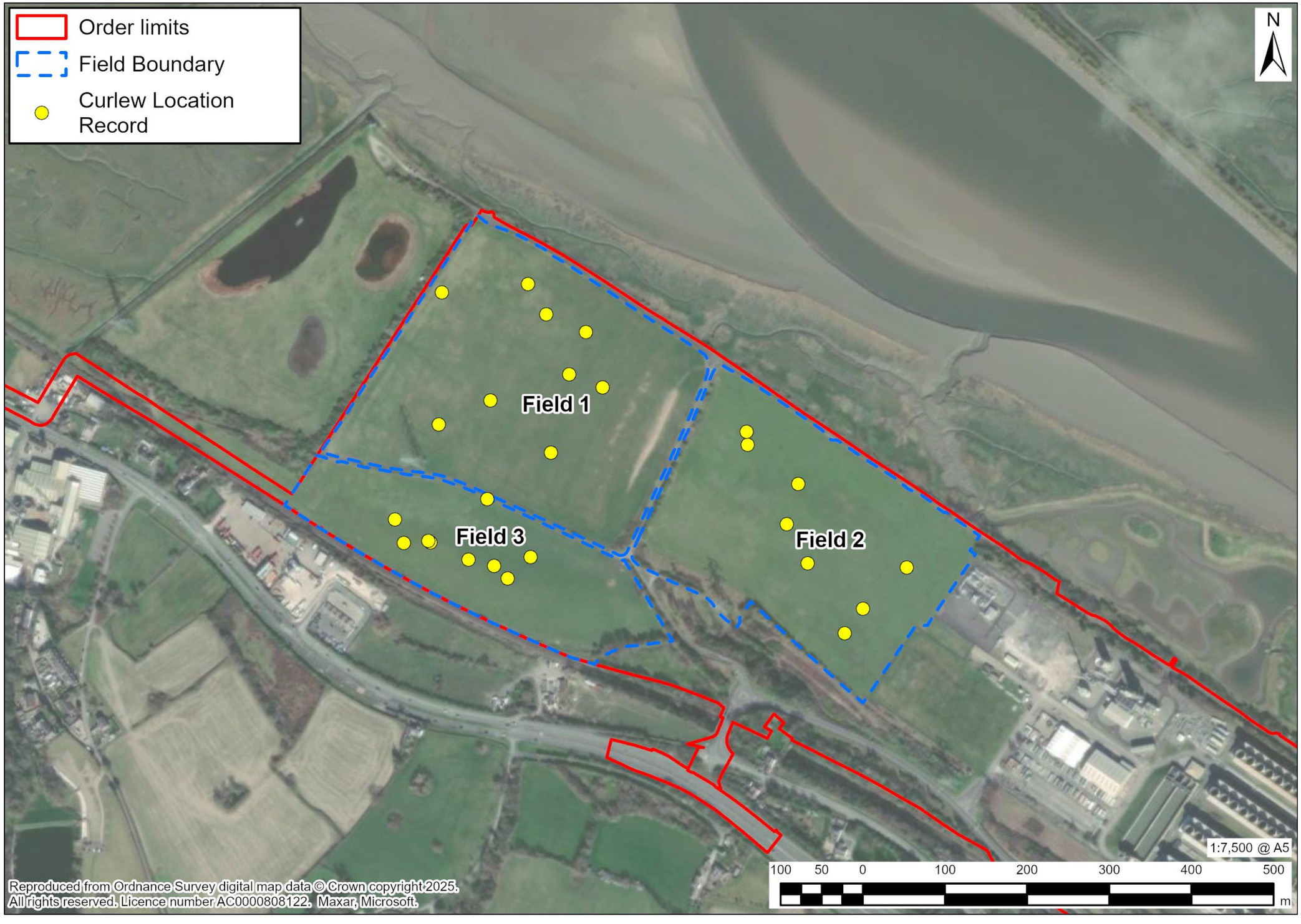
Table 1: 2023/2024 Curlew peak monthly counts within the three fields proposed as laydown area with percentage of the SPA population[2] in parenthesis

November 2023	December 2023	January 2024	February 2024	March 2024	April 2024
52 (1.3%)	92 (2.4%)	69 (1.8%)	42 (1.1%)	0 (0%)	17 (0.4%)

~~2.4.2~~2.4.4 A peak count of 92 individuals (2.4% of the SPA / Ramsar site population) were recorded within the proposed laydown area on a single visit in December 2024 (see **Table 1**). Peak counts in November 2023, January 2024 and February 2024 also exceeded 1% of the SPA / Ramsar site population. Curlew were not recorded using the proposed laydown area outside of the months presented in **Table 1**.

[2] Percentage of the Dee Estuary / Aber Dyfrdwy SPA taken from the revised 2009 data sheet – 3,899 individuals (5 year mean 1994/95-1998/99)

Plate 3: Curlew records (2023/2024) within the Main Development Area



~~2.4.3~~2.4.5 Of the land to be lost to the Proposed Development, approximately 11 ha would be lost temporarily. This loss would not be short-term, lasting up to nine years, but would be reversible as the area would be reinstated upon completion of construction in accordance with the **Outline Landscape and Ecological Management Plan** (**LEMP**) (**EN010166/APP/6.9**). A further 15 ha would be lost in the long-term, until the Proposed Development was decommissioned and removed. Combined total losses therefore equate to 26 ha of FLL for SPA and Ramsar site Curlew, to be lost in the intermediate to long-term.

~~2.4.4~~2.4.6 In defining an adequate area for offsetting, the overall size of the three fields where Curlew were recorded were used. It is noted that the total field area (i.e., the field in its entirety as a functional unit bounded by hedgerow or fencing, rather than the occupied sub-area where birds were recorded) was used on the assumption that this represents a functional ecological unit.

~~2.4.5~~2.4.7 As such, the Applicant initiated a process of identifying and securing appropriate land offsite, to offset the loss of 26 ha of FLL within the Order limits for roosting and foraging Curlew during both construction and operation.

3. Site Selection Process

3.1 Objective

3.1.1 Discussions with Natural Resources Wales (NRW) and Royal Society for the Protection of Birds (RSPB) have identified that the offsetting objective should be to ensure no net loss in Curlew foraging and roosting habitat. This would be achieved by creating and managing wet grassland habitat, alongside the creation of shallow scrapes that would become seasonally inundated and by raising ground water level at appropriate times.

3.2 Site Selection Criteria

3.2.1 The Applicant commenced a process of identifying areas of potentially suitable land. Factors considered in identifying potential sites for Curlew offsetting were:

- proximity to the Order limits;
- existing land use and habitats present;
- distance from the SPA / Ramsar site and in particular proximity to the estuary;
- potential sources of disturbance (e.g., noise sources / recreational pressure);
- availability for purchase and opportunity for management in perpetuity; and
- existing levels of use by Curlew and other bird species.

3.3 Initial Site Identification and Screening

3.3.1 Following the identification of potential sites, all identified land parcels were screened for their suitability to support Curlew during a desk-based review of habitats from aerial imagery and British Trust for Ornithology (BTO) Wetland Bird Survey Data (WeBS) data of the SPA /Ramsar site count sectors.

3.3.2 To support available baseline data, scoping walkover survey visits were then conducted at four potentially suitable sites around the Dee Estuary at Thurstaston, Greenfield, Bagillt Fields and Gronant Fields (the latter near Prestatyn). The focus of these scoping walkovers were to validate the screening exercise and confirm the identified sites could provide a suitable site to meet the objectives of this Strategy. It was considered that all four sites were suitable.

3.3.3 Through ongoing and further discussions with landowners the Thurstaston and Greenfield sites were later deemed not available, or not available within the timeframes required and so were excluded from further consideration. The two remaining sites were taken forward for more detailed review: Bagillt Fields and Gronant Fields, as discussed in Section 3.4.

3.3.4 Throughout the site selection process outlines in Section 3.2 and 3.3 there was consistent engagement with NRW and RSPB.

3.4 Sites Considered

Overview

3.4.1 The Applicant undertook eight bird surveys at each the following sites between March 2025 and April 2025 to support WeBS data:

- Bagillt Fields (**Figure A-1**); and
- Gronant Fields (**Figure A-2**).

3.4.2 The surveys included nocturnal and diurnal surveys at high and low tides and were undertaken by an ornithologist in accordance with the general principles of a BTO WeBS.

3.4.3 These sites were presented to and discussed with both NRW and RSPB to understand potential suitability of these sites. In parallel, the applicant prepared desk top appraisal of these sites to explore other potential constraints which could influence the suitability of the sites for mitigation purposes.

Bagillt Fields

3.4.4 Bagillt Fields are located 3.8 km from the Main Development Area, north-east of Maor Industrial Estate in Bedol, North Wales, as shown on **Figure A-1**. The grid reference for the approximate centre of the site is SJ 23166 74593.

3.4.5 Bagillt Fields are bound to the north and east by the Dee Estuary, to the west by the North Wales Mainline and to the south by an area of woodland. The Flintshire coastal path runs adjacent to the northern and eastern boundaries, however there is currently no public access to the fields.

3.4.6 Bagillt Fields are located within the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site. The area of these fields is 41.8 ha.

Gronant Fields

3.4.7 Gronant Fields are approximately 21.3 km from the Main Development Area, south of Prestatyn Golf Club as shown on **Figure A-2**. The grid reference for the approximate centre of the site is SJ 08228 83684.

3.4.8 Gronant Fields are bound to the north by the North Wales Mainline, to the east by Greenacres Caravan Park, to the west by the agricultural fields and to the south by the A548 Prestatyn Road. There is currently no public access to the fields.

3.4.9 Gronant Fields are located within the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site. The area of these fields is 56.3 ha.

3.5 Preferred Site

3.5.1 In consultation with NRW, the Applicant's preferred option is to deliver 26 ha of habitat creation and improvements within the 56.3 ha site at Gronant Fields.

3.5.2 The main reasons for the selection of the Gronant Fields site over the Bagillt Fields site are as follows:

- the land is capable of flooding in winter/has ways to control water levels/allows for the creation of hollows, channels, foot drains or scrapes;
- there is no direct public access and so disturbance from recreation would be negligible;
- the land consists of individual field parcels over 3 ha in size, with limited intervening boundary vegetation;
- the fields have stockproof boundaries and are suitable for grazing; and
- the land is not identified within the Shoreline Management Plan 2 (Ref 1) for managed retreat.

3.5.3 Wet habitat features would be relatively easy to enhance and create, such as a network of blind linear foot drains, and control of water level within the fields would further enhance the value for non-breeding Curlew, as well as other wintering waders, in providing feeding areas as well as roosting areas during high tide.

3.5.4 The Applicant ~~is in the process of agreeing purchase of~~owns the land shown in **Figure A-2** at Gronant Fields.

3.5.5 ~~The land would be managed for 80 years (this being the standard HRA definition of 'in perpetuity') or until~~ Following the purchase of the land in September 2025 the ~~Proposed Development is decommissioned, whichever is the sooner.~~

- ~~The core area for the primary measure of offsetting the loss of FLL would be the provision of 26 ha of enhanced wet grassland with a network of created linear footdrains to provide optimal foraging habitat for Curlew. The location of this is shown on **Figure A-3**. The aim of managing this habitat is to provide suitable~~control of water tables on site and in the ~~surrounding ditches to keep the grassland damp and prevent extensive drying out during periods of peak Curlew occurrence (November to March);~~
- ~~maintaining the grassland sward at a suitable height through the winter period through an appropriate grazing regime; and~~

~~3.5.6~~3.5.4 ~~ensuring the core area maintains an open aspect, through~~Applicant has been discussing land management ~~of boundary vegetation within the site and prevention of encroaching reed and other tall dense vegetation away from existing ditches which may reduce~~with NRW and has been taking measures aligned to the objectives of this plan to increase the suitability of ~~grasslands for foraging.~~ the area for Curlew. This includes the introduction of a grazier.

3.5.7 ~~A further 14.8 ha of existing grassland would be incorporated into the wider management of the core area. Whilst, not required for offsetting the loss of FLL within the Order limits, management of water tables, sward height and taller vegetation encroachment in these secondary areas would provide additional habitat enhancements for Curlew, as well as other SPA bird species. These secondary areas are shown on **Figure A-3**~~

~~3.5.8~~3.5.5 ~~The~~This strategy specifically addresses the loss of FLL for Curlew associated with the construction, operation and decommissioning of the Proposed Development. Under this strategy the land would be managed for 80 years (this being the standard HRA definition of 'in perpetuity') or until the

Proposed Development is decommissioned, whichever is the sooner. Management beyond this period is outside the scope of this strategy.

4. Existing Conditions

Land Management and Habitats

4.1.1 The Gronant Fields site mainly comprises other neutral grassland and there are three fields of cultivated land in the south-west corner (see **Plate 3**). ~~The~~Up until the Applicant's ownership, the fields appear not to have been managed since 2024 and areas of historically cultivated land ~~has~~have been colonised by arable weeds. The grassland is periodically inundated and resembles a rush-pasture in its structure and composition~~.~~, which along with the sward height is reducing its suitability for Curlew and other waders.

~~4.1.1~~4.1.2 Most of the fields at the Gronant Fields site are located adjacent to water filled ditches. Some of these ditches support tall emergent plants, particularly common reed (*Phragmites australis*) which is beginning to colonise the adjacent fields. There is a pond in the central part of the Gronant Fields site and several ephemeral pools which temporarily ~~holds~~hold rainwater. There is a fragmented hedgerow adjacent to a ditch in the central-east part of the Gronant Fields site. Relevant habitat features are shown on **Figure A-4**.

Notable Bird Records

~~4.1.2~~4.1.3 The distribution of notable bird species recorded by the Applicant at the Gronant Fields site between March and April 2025 are shown on **Figure A-5**. Alongside BTO WeBS data these were used to establish current usage of the ~~Site~~Gronant Fields site by birds.

Curlew

~~4.1.3~~4.1.4 The BTO WeBS Five Year (2018 to 2023) Curlew winter peak count for the Gronant Fields site which includes a disjunct land parcel (the combined WeBS count sector is known by BTO as 'Gronant Fields') is 95 individuals (range 53 to 144).

~~4.1.4~~4.1.5 A suite of nocturnal and diurnal high tide and low tide wetland bird surveys were carried out by ~~AECOM ornithologists~~the Applicant during March and repeated in April 2025. A peak count of 20 Curlew was recorded at the Gronant Fields site (west land parcel of the WeBS count sector) on 31 March 2025. This relatively low peak count might reflect that Curlews had started to disperse from the SPA / Ramsar site to their breeding grounds. Further surveys will be undertaken during the peak wintering months to further understand how the Gronant Fields site is used by waterbirds.

4.1.6 The Applicant continued surveys through the 2025/2026 wintering period commencing in November 2025. The survey information to date, including counts of Curlew recorded is included within **Table 2**.

Table 2: 2025/2026 wintering surveys

Date	Day or Night	Tide	Curlew	Commentary
05-Nov-25	Nocturnal	HT	2	Both records located within fields adjacent to the Gronant Fields site

Date	Day or Night	Tide	Curlew	Commentary
06-Nov-25	Diurnal	HT	1	Record located within fields adjacent to the Gronant Fields site
11-Nov-25	Diurnal	LT	0	N/A
04-Dec-25	Nocturnal	HT	0	N/A
05-Dec-25	Diurnal	HT	0	N/A
09-Dec-25	Diurnal	LT	0	N/A
06-Jan-26	Diurnal	HT	7	All records located within fields adjacent to the Gronant Fields site
15-Jan-26	Diurnal	LT	0	N/A
15-Jan-26	Nocturnal	HT	0	N/A
04-Feb-26	Diurnal	HT	47	All records located within fields adjacent to the Gronant Fields site
12-Feb-26	Diurnal	LT	41	All records located within fields adjacent to the Gronant Fields site
12-Feb-26	Nocturnal	HT	0	N/A
05-Mar-26	Diurnal	HT	20	16 curlew recorded within the Gronant Fields site. 15 were recorded in a group within the west of the Gronant Fields site and a single record located in the north east.
17-Mar-26	Diurnal	LT	0	N/A
17-Mar-26	Nocturnal	HT	0	N/A

Other Species

4.1.54.1.7 Two species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were recorded at the Gronant Fields site: barn owl (*Tyto alba*) and Cetti's warbler (*Cettia cetti*):

- a barn owl was recorded roosting in a crack willow (*Salix fragilis*) next to the pond. The crack willow is a potential nest site; and
- six Cetti's warblers were recorded calling from within ditch vegetation across the Gronant Fields site.

5. Management and Monitoring Plan

5.1 Curlew Steering Group

5.1.1 It is proposed that a Curlew Steering Group is formed to review the results of monitoring and to agree any management activities on an annual basis.

5.1.2 It is envisaged that the Curlew Steering Group would comprise at least one member of each of the following parties:

- the undertaker;
- Natural Resources Wales;
- Natural England;
- Flintshire County Council; and
- RSPB.

~~5.1~~5.2 Aim and Objectives

~~5.1.1~~5.2.1 The objectives of the habitat creation and enhancement work within the offsetting area for the SPA / Ramsar site Curlew wintering population is to:

- provide an optimal Curlew foraging resource; and
- support an increased number of individuals that includes an equivalent number to those displaced from the Main Development Area.

5.2.2 The core area for the primary measure set out within this Strategy to offset the loss of FLL is the provision of 26 ha of wet grassland within the Gronant Fields site. The remainder of the Gronant Fields site would be managed in accordance with the **Off-site Net Benefit for Biodiversity and Green Infrastructure Strategy (EN010166/APP/6.14)**, providing a further 2.29 ha of wet grassland alongside 21.56 ha of existing other neutral grassland (to be enhanced to species rich grassland).Whilst not required for offsetting the loss of FLL within the Order limits, similar management of sward height and taller vegetation encroachment in these secondary areas would provide additional habitat enhancements for Curlew, as well as other SPA bird species. These secondary areas are shown on **Figure A-3** and management described within the **Off-site Net Benefit for Biodiversity and Green Infrastructure Strategy (EN010166/APP/6.14)**.

5.2.3 The delivery of the offsetting areas and specific measures will be provided in stages, with the first stage enacted prior to commencement of the Proposed Development. These stages are outlined in **section 5.3**.

~~5.2~~5.3 Implementation

~~5.2.1~~5.3.1 Before the Curlew habitat offsetting measures are implemented consideration will be given, where possible, to avoid/reduce the disturbance to barn owl, Cetti's warbler and other protected/ otherwise notable species at the Gronant Fields site.

~~5.2.2~~5.3.2 The first stage of the implementation of the Curlew habitat offsetting measures will be delivered through the following ~~actions~~action (see **Figure A-3**):

- ~~creation of a network of foot drains to provide areas to hold and collect standing water, particularly during winter flooding. The design of these will avoid extensive areas of grassland from being covered in standing water, whilst maximising the availability of wet edges (which are important foraging areas for waders and wildfowl). These features will also assist with retention and distribution of flood water during the winter months, keeping the soil moist, but not saturated;~~
- implementation of a suitable grazing/mowing regime to maintain an optimal sward height and required levels of ground disturbance to promote soil invertebrate abundance. This will target having a short sward height (no higher than 10 cm during the winter period (October – March) to maximise foraging opportunities for Curlew~~; and~~. This action would target improving accessibility to the existing soil invertebrate prey resource.

Establishment and Long-term Management of Wet Grassland

~~5.2.3~~5.3.3 The implementation of the actions set out in section 5.3.2 will be undertaken prior to the commencement of construction works at the areas of the Main Development Area for which offsetting is required, to ensure that the mitigation provision is available prior to any displacement occurring.

~~5.2.4~~5.3.4 Sward structure plays an important role in invertebrate abundance and availability, so the grass height would not exceed 10 cm during the period October to March. This would be achieved through mowing and/or grazing during spring, summer and autumn to ensure the sward can be retained at a suitable height during the winter. The long-term objective is to increase the densities of soil invertebrates, which will be aiding by a cessation in ploughing, pesticide application and subsequent build-up of high organic content, which comes from undisturbed soils.

~~5.2.5~~5.3.5 Within the first 12 months of ownership, the offsetting area will be intensively grazed by sheep / cattle or subject to repeat mowing/cutting to reduce the extent of tall dense vegetation and open up/disturb the sward. Any cuttings will be removed to appropriate storage areas on Gronant Fields site. The sward will be maintained at a height of no more than 10 cm during the months of October to March.

5.3.6 Once the areas are fully established and the desired sward height achieved, the area will receive one mechanical cut in late summer/ early autumn. Any management activities will be restricted for the full extent of the breeding season (typically March to August inclusive). In future years, low intensity sheep / cattle grazing (within fenced areas and where appropriate) in autumn will provide the optimum conditions, however, where this is not possible, a further cut late in the season will be carried out to ensure that a sward height of no higher than 10 cm remains throughout the winter period.

5.3.7 Annual habitat management will be required for the fields to prevent overgrowth (of tall wetland plants and / or scrub).

5.4 Further Enhancement Opportunities

5.4.1 1. This stage would follow the creation of the replacement curlew habitat, as described in section 5.3.2, and so would take place in parallel and subsequent to works having commenced in the Main Development Area.

~~5.2.6~~5.4.2 In addition to management of existing grassland the conversion of three fields of cultivated land to permanent wet grassland through the application of a suitable seed mix~~.~~ would be undertaken An indicative seed mix would be similar in floristic composition to the National Vegetation Classification (NVC) MG10 *Holco–Juncetum effusi* rush-pasture plant community (Ref 2). This action would increase the potential foraging resource available to Curlew, with management being carried out in line with the measures set out in sections 5.3.3-5.3.7.

~~5.2.7~~5.4.3 The proposed enhancement set out in this strategy would likely be in the form of a network of created linear foot drains to provide optimal foraging habitat for Curlew. Potential foot drain locations are shown on **Figure A-3**. The aim of this enhancement would be to provide additional foraging (and roosting) opportunities for Curlew throughout the late autumn, winter and early spring period (October to March) by providing conditions that would support high densities of Curlew invertebrate prey found in field vegetation and the soil surface (in particular earthworms, beetles and fly, especially crane fly, larvae). This will be achieved by:

- creating a network of 'blind' linear foot drains to hold and collect any floodwater during the winter and into the spring, thereby keeping the soil moist (but not saturated), channelling surface water so that the grassland isn't completely or regularly inundated and keeping the availability of Curlew invertebrate prey near to the soil surface;
- control of water tables within the Gronant Fields site and in the surrounding ditches to keep the grassland damp and prevent extensive drying out during periods of peak Curlew occurrence (November to March); and
- ensuring the core area maintains an open aspect, through management of boundary vegetation within the Gronant Fields site and prevention of encroaching reed and other tall dense vegetation away from existing ditches which may reduce the suitability of grasslands for foraging.

Implementation

Control of Water Levels

~~5.2.8~~5.4.4 During the winter period (between November and February) it will be necessary to maintain areas of shallow surface water flooding, ideally with:

- a range of depths from 1 cm to 50 cm;
- cover of 5% to 30% of the area, which can change naturally to prevent stagnation; and
- muddy edges for waders to feed in.

~~5.2.9~~5.4.5 Water levels will need to be controlled to avoid large areas of the grassland being inundated for sustained periods of time, as prolonged inundation of soils will deplete food resources such as earthworms.

~~5.2.10~~5.4.6 The condition and function of existing water control structures has not been explored in detail. Further information on the control of water will be detailed in the Curlew Mitigation and Monitoring Plan.

Creation of Foot Drains

~~5.2.11~~5.4.7 Naturally occurring flooding of the offsetting area from existing water-filled ditches will help create suitably damp/wet conditions for Curlew, but this will be periodic, with water quickly draining back off into existing ditches. Therefore, it is considered that additional habitat management is needed to provide assurance of effective mitigation. One of these measures will be the creation of a network of foot drains which are a common habitat feature deployed to support diverse invertebrate assemblages and create suitable habitat conditions for waders. They are shallow depressions with gently sloping edges, designed to hold water seasonally and potentially remaining damp throughout the year.

~~5.2.12~~5.4.8 Because Curlew will be most interested in edge habitat (i.e., the ecotonal boundary where the amount of water is sufficient to maintain dampness) rather than the deeper sections of scrapes, the Proposed Development will deliver a network of foot drains across 26 ha of the Curlew offsetting area, designed to maintain shallow water levels and maximise edge habitat. Foot drains would be created using excavators or rotary ditchers to widths of 1–2 m and depths of 30 cm (i.e., not extending beyond the depth of topsoil), ensuring a gently sloping edge profile that provides ideal conditions for invertebrates and foraging waders. Any excavated topsoil would be redistributed on the surrounding land.

~~5.2.13~~5.4.9 Given that the soils within the Gronant Fields site are dominated by heavy clays, the foot drains would predominantly retain perched water and/or be fed by rainfall. To increase the likelihood that the foot drains reliably retain adequate volumes of water in winter, they could be arranged to connect with water filled ditches and ephemeral pools within the Curlew offsetting area. Despite the ephemeral nature of some of these features, all are likely to hold water in winter. Connecting the network of foot drains with any of these water features would very likely increase its overall value to Curlew. Overall, delivering a network of foot drains in the offsetting area will increase the likelihood of creating ideal conditions for the invertebrate assemblages on which Curlew rely.

~~5.2.14 The habitat for the Curlew offsetting area will be established~~This would be achieved through mowing and/or grazing.~~Within the first 12 months, the offsetting area will be intensively grazed by cattle or subject to repeat mowing/cutting to reduce the extent of tall dense vegetation and open up/disturb the sward. Any cuttings will be removed to appropriate storage areas on site.Low intensity cattle grazing (within fenced areas and where appropriate) in the autumn will provide optimum conditions, however, where this is not possible, a further cut late in the season will be carried out to ensure that a sward height of no higher than 10 cm remains throughout the winter period.~~

~~5.2.15 Annual habitat management will be required for the fields and foot drains to prevent overgrowth (of tall wetland plants and / or scrub) and maintain open, muddy margins. Previous case studies have demonstrated that wader usage declines rapidly as muddy margins become inaccessible to due to vegetation growth. Foot drains and their margins can be adequately managed through low-intensity livestock grazing and/or annual mowing of margins.~~

~~5.2.16 The habitat for the Curlew offsetting area will be managed for 80 years (this being the standard HRA definition of 'in perpetuity') or until the Proposed Development is decommissioned, whichever is the sooner.~~

~~5.3~~5.5 Monitoring and Management

Monitoring

~~5.3.1~~5.5.1 To demonstrate the effectiveness of the implemented habitat creation and enhancement measures in supporting Curlew, monthly visits will be carried out by ornithologists between ~~October~~August and April inclusive. The number of Curlews present on each visit, along with how they are using the Gronant Fields site, will be recorded (to allow comparison between visits and winters) at the following intervals:

1. prior to habitat creation and enhancement works; and
2. first ~~five~~ten years after habitat creation and enhancement works.

~~5.3.2~~5.5.2 ~~Monitoring of~~A programme of monitoring for the measures set out in Section 5.4.2, will be agreed with the Curlew Steering Group. Monitoring may include the effectiveness of the foot drains and wet grassland for the same time periods as the bird survey set out above, ~~will be undertaken to ensure~~along with ensuring that the correct ~~level~~levels of water ~~is~~are maintained, along with optimal vegetation levels at the edge habitats.

Adaptive ~~and Water~~ management

~~5.3.3~~5.5.3 The monitoring will allow for adaptive management and the taking of any remedial actions. Adjustments of ~~water depth and~~ vegetation management, such as grazing levels and control of tall emergent and scrub vegetation, would be undertaken as needed to ensure ~~effect water management to ensure~~ suitable conditions for Curlew remain on Gronant Fields site. The Gronant Fields site will be subject to long term management based on the results of the first five years of monitoring. The management plan for the Gronant Fields site will be a live document and adapted as required. Any changes to the management plan will be agreed with ~~relevant stakeholders~~the Curlew Steering Group in accordance with the Curlew Mitigation and Monitoring Plan.

~~5.3.4~~5.5.4 The results of these monitoring activities will be made available to ~~NRW and the relevant host authorities~~the Curlew Steering Group following completion of work at each interval.

~~5.4~~5.6 Other Considerations

~~5.4.1~~5.6.1 Noting that the land at Gronant Fields is outside of the Order limits, the Applicant would seek the necessary permissions and consent prior to any works commencing at this location. These permissions would be based on the details to be developed and presented in the Curlew Mitigation and

Monitoring Plan in accordance with Requirement 11 of the **Draft DCO** (**EN010166/APP/3.1**).

~~5.4.2 The potential environmental effects associated with the works detailed within this strategy are not considered within the DCO Application.~~

~~5.4.3~~5.6.2 To inform and support the development of the Curlew Mitigation and Monitoring Plan post-consent, further studies will be undertaken. This includes phase 2 ecological surveys, as recommended within the Gronant Fields **Preliminary Ecological Appraisal** (see the **Offsite NBB and GI Strategy** (**EN010166/APP/6.14**)), and additional environmental surveys~~. This includes the completion of Wetland Bird Counts from October 2025 to April 2026.~~ such as ground investigation and groundwater monitoring. Further details of the proposed ground investigations are provided below:

Ground Investigations

5.6.3 To support any potential enhancement through the creation of linear foot drains, the Applicant is in discussion with NRW on the scope of the required ground investigations. As these discussions are ongoing, this strategy only outlines the aims of the ground investigations, which are repeated below:

- Investigate near surface soils (<0.5m) and their moisture content / water retention properties; and
- Determine the near surface ground profile (<3.0m) and near surface groundwater conditions and the potential influence of groundwater which will inform the future management of water levels.

The Curlew Mitigation and Monitoring Plan will provide the final details of the ground investigation.

~~5.5~~5.7 Summary

~~5.5.1~~5.7.1 The measures set out in this strategy are sufficient to ensure that there is no net loss in foraging habitat for Curlew associated with the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site arising from the temporary and permanent habitat loss within the Main Development Area of the Proposed Development. Consequently, there are no predicted adverse effects on the integrity of the Dee Estuary / Aber Dyfrdwy SPA / Ramsar site.

References

Ref 1. North West England and North Wales Coastal Group (2016), Shoreline Management Plan 22 – The Great Orme [Online]. Available at: https://www.mycoastline.org.uk/shoreline-management-plans/ (Accessed 25/07/2025)

Ref 2. Rodwell, J.S. (1992). British Plant Communities Volume 3: Grasslands and Montane Communities. Cambridge University Press.

Appendix A: Figures

Revision: 0 Drawn: WC Checked: JG Approved: SC Date: 2025-07-22

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LEGEND

Site Boundary

NOTES

ISSUE PURPOSE

Curlew Mitigation Strategy

DATE

July 2025

PROJECT NUMBER

60717119

FIGURE TITLE

Bagillt Fields Location

FIGURE NUMBER

Figure A1

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FIGURE TITLE

Gronant Fields Location

FIGURE NUMBER

Figure A2

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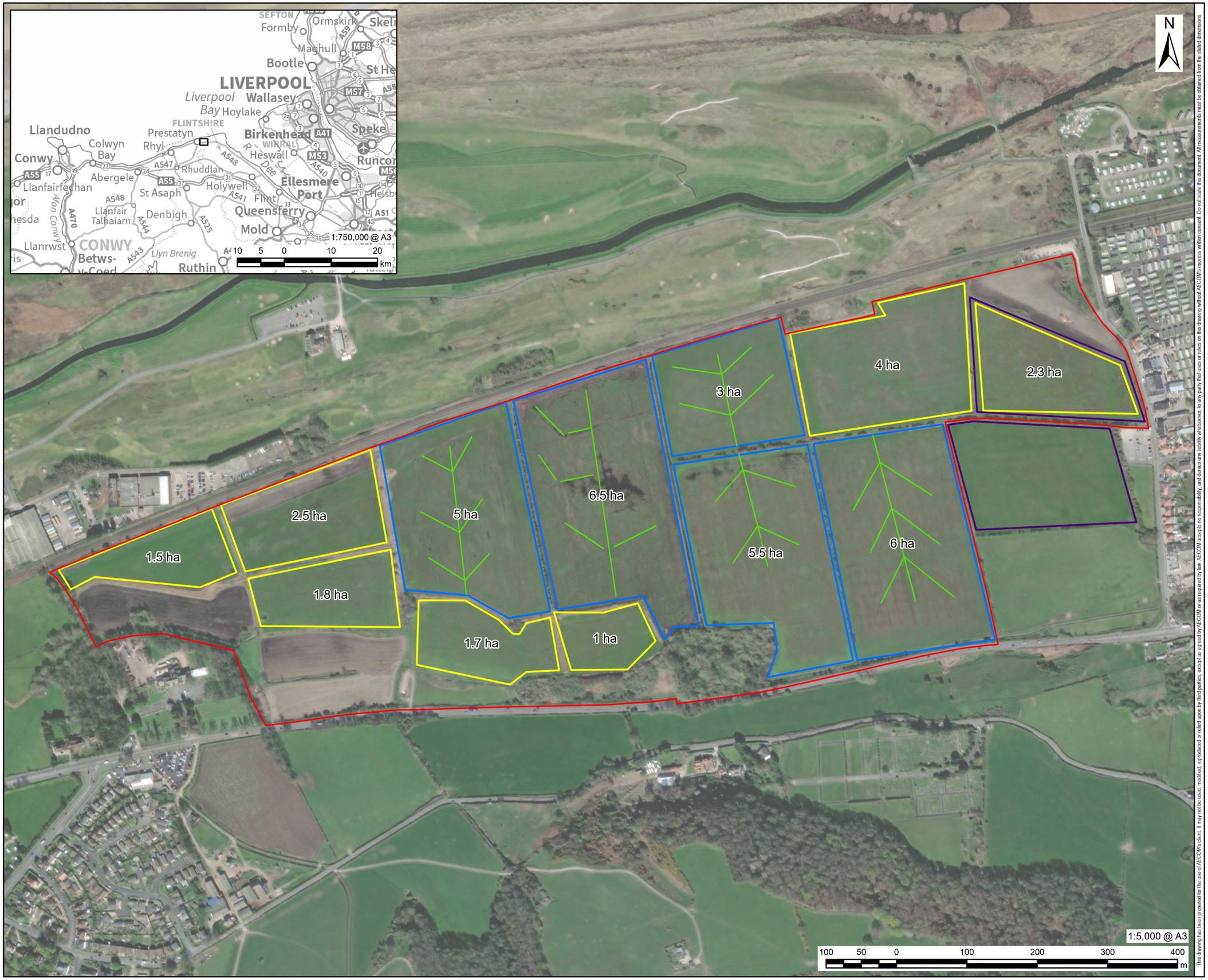

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LEGEND

- Site Boundary
- Created Foot Drain
- Core Curlew Area
- Secondary Curlew Area
- Areas Curlew Recorded

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PROJECT NUMBER

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FIGURE TITLE

Curlew Habitat Creation and Enhancements

FIGURE NUMBER

Figure A3

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LEGEND

- Site Boundary
- Ephemeral Pool
- Pond
- Water Filled Ditch
- Common Reed

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FIGURE TITLE

Existing Habitat Features

FIGURE NUMBER

Figure A4

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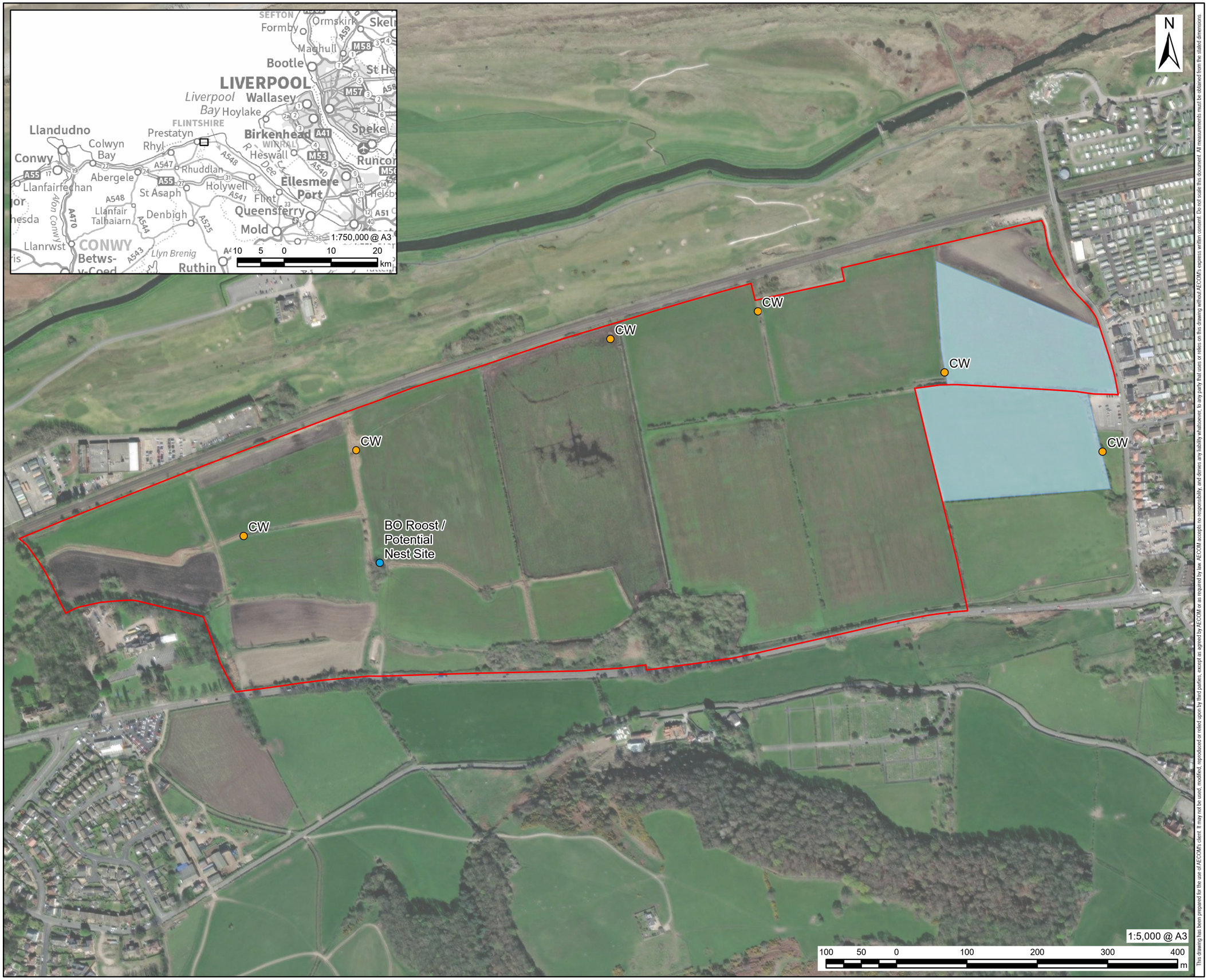

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LEGEND

- Site Boundary
- Curlew Foraging Field

Species

- Barn Owl (BO)
- Cetti's Warbler (CW)

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FIGURE TITLE

Notable Bird Records Distribution Map

FIGURE NUMBER

Figure A5

Abbreviations

Term	Definition
BTO	British Trust for Ornithology
C&IEA	Construction and Indicative Enhancement Area
CCP	Carbon Capture Plant
CCGT	Combined Cycle Gas Turbine
CO_2	Carbon dioxide
CQLCP	Connah Quay Low Carbon Power
DCO	Development Consent Order
ES	Environmental Statement
EU	European Union
FLL	Functionally Linked Land
LEMP	Landscape and Ecology Management Plan
MW	Megawatt
NGET	National Grid Electricity Transmission
NRW	Natural Resources Wales
RSPB	Royal Society for the Protection of Birds
SPA	Special Protection Area
UK	United Kingdom
WeBS	Wetland Bird Survey Data