



Longfield Solar Farm

Cable Route and Substation Ecology Survey

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Longfield Solar Energy Farm Ltd

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1 Introduction

- 1.1.1 AECOM was instructed by Longfield Solar Energy Farm Ltd to undertake a survey of water vole (*Arvicola amphibius*) and otter (*Lutra lutra*), and a breeding bird appraisal, along with an ecological walkover update for protected species along the cable route and substation extension area (including previously inaccessible Hanson Land) associated with the proposed Longfield Solar Farm (the 'Scheme'). This survey area is referred to as the "cable route and substation extension land" within the wider Order limits for which development consent is being sought for the Scheme.
- 1.1.2 This report should be read in conjunction with the **Environmental Statement (ES) Chapter 8: Ecology Doc Ref: [EN010118/APP/6.1]**, and associated Appendices. Further information on the **Scheme is provided in ES Chapter 2: The Scheme [EN010118/APP/6.1]**.

2 Methods

2.1 Water vole/otter survey

- 2.1.1 The full methods are provided in **ES Appendix 8K: Riparian Mammal Survey Report [EN010118/APP/6.2]**. A previous survey was undertaken along Boreham Brook (and adjacent land) on 2nd November 2021 and this second survey visit was undertaken following the same method, on 15th June 2022. The weather was fine and dry, 20 degrees Celsius with a light north wind and no previous rain.

2.2 Breeding bird appraisal

- 2.2.1 An appraisal for breeding birds was undertaken on 15th June 2022 during the main breeding bird season of the habitats along the proposed cable route and sub-station extension area. The weather was fine and dry, 15 °C at 9am with a light north wind and no previous rain. Bird species were recorded across the survey area, with bird behaviour, including: singing, calling, flights and movements between areas, carrying food, nest building, aggressive encounters and other bird behaviour was recorded. This information was used to appraise the habitats for nesting birds.

2.3 Appraisal of the potential suitability of habitats for protected and notable species

- 2.3.1 An assessment was made of the potential suitability of the habitats present to support other protected and notable species of plants or animals (as defined by legislation and planning policy in Section 2 of the **Preliminary Ecological Appraisal (PEA) [EN010118/APP/6.2]**). Field signs, habitat features with potential to support protected species and any sightings or

auditory evidence were recorded when encountered, but no detailed surveys were carried out for any particular species.

- 2.3.2 In addition, specific attention was given to identifying instances of invasive non-native plant species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and those “widespread species” listed in the Invasive Alien species (Permitting and Enforcement) Order 2019. Locations of plants or stands of any such invasive non-native plant species, if found, were recorded.

2.4 Survey limitations

- 2.4.1 Where habitat boundaries coincide with physical boundaries recorded on OS maps, the resolution was determined by the scale of mapping. Elsewhere, habitat mapping was as estimated in the field and/or recorded by hand-held GPS. Where areas of habitat are given, they are approximate and should be verified by measurement on-site where required for design or construction. While indicative locations of trees are recorded this does not replace requirements for detailed specialist arboriculture survey to British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction.
- 2.4.2 There were no other limitations to the survey.

3 Results

3.1 Water vole

- 3.1.1 No signs of water vole were found within the survey area. Habitats are sub-optimal with a shallow and heavily shaded stream with very sparse food plants present and presence of predators such as American Mink (*Neovison vison*) within the area (Annex A, Photos 1 to 3).

3.2 Otter

- 3.2.1 No signs of otter were found, including no dens or couches that could be impacted by the Scheme. Based on desk study records and previous field surveys undertaken for the Scheme, otter is present in the wider area, e.g. along the River Ter and River Chelmer, and so has the potential to use Boreham Brook occasionally.

3.3 Breeding bird appraisal

- 3.3.1 A Schedule 1 species, hobby (*Falco subbuteo*), was recorded foraging over the Cable route and substation extension land and may nest in nearby woodlands. Small numbers of farmland bird species, including those listed on

the Birds of Conservation Concern (BoCC) Red List¹, were recorded. These consisted of yellowhammer (*Emberiza citrinella*) (2 pairs/territories), song thrush (*Turdus philomelos*) (1 pair/territory) and skylark (*Alauda arvensis*) (2 pairs/territories), with low numbers of other species comprising stock dove (*Columba oenas*) (2 pairs/territories) and an estimated 5 to 8 pairs/territories each of lesser whitethroat (*Sylvia curruca*), whitethroat (*Curruca communis*), blue tit (*Cyanistes caeruleus*) and blackbird (*Turdus merula*). Most species were located in the scrub, woodland and hedges with skylark present in the arable fields. Given the implementation of standard precautions on timing of any tree, scrub or ground clearance to avoid the nesting season, birds are unlikely to be significantly impacted by the cable route or substation extension.

3.4 Habitats

- 3.4.1 There is no change to the habitats as previously reported in the baseline surveys for the **PEA [EN010118/APP/6.2]**.

3.5 Protected and notable species update

- 3.5.1 Table 1 provides a summary of potentially relevant species identified through field survey (and previous information in the **PEA [EN010118/APP/6.2]**). The table summarises the conservation status of each species and provides comment on the likelihood of presence. There are no changes to the baseline information as reporting in the PEA and ES chapter.

¹ Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble D. and Win, I. (2021). Birds of Conservation Concern 5. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747

Table 1: Protected and notable species relevant or potentially relevant to the cable route and sub-station extension

Species/Species Groups	Legally Protected Species	Species of Principal Importance	Other Notable Species	Present	Present / Potentially Present in Wider Zone of Influence	Supporting Comments
Badger <i>Meles meles</i>	✓	✓	X	✓	✓	No change to the baseline. Badger and their setts have been recorded on or immediately adjacent to the Cable route and substation extension land.
Bats	✓	✓	X	?	✓	No change to the baseline. The Cable route and substation extension land contains trees and adjacent woodlands and buildings which have the potential to support roosting bats (e.g. Annex A, Photo 4). None are likely to be impacted by the Scheme.
Breeding birds	✓	✓	✓	✓	✓	No change to the baseline. Habitats such as hedges, trees, scrub and arable support nesting birds during the breeding season. If the Scheme requires any habitat removal during the nesting bird season then precautions to be followed and habitats re-instated following work along the cable route.
Dormouse <i>Muscardinus avellanarius</i>	✓	✓	X	X	X	No change to baseline, no desk study records close to the cable route and substation extension land and limited suitable habitat present within the Cable route and substation extension land.
Otter	✓	✓	X	X	X	No change to the baseline with no signs of otter along Boreham Brook based on surveys in 2021 and 2022. Present in the wider river catchment area so may use Boreham Brook occasionally.
Reptiles	✓	✓	X	?	?	No change to the baseline. There is some reptile habitat of limited suitability across the Cable route and substation extension land, comprising small areas of grassland/tall herbs

Species/Species Groups	Legally Protected Species	Species of Principal Importance	Other Notable Species	Present	Present / Potentially Present in Wider Zone of Influence	Supporting Comments
						within Boreham Pits LoWS. Due to the nature of work and minimal land-take reptiles are unlikely to be of relevance to the Scheme, but general precautions as proposed in the ES will be followed.
Water Vole	✓	✓	X	X	X	No change to the baseline with no signs of water vole based on surveys in 2021 and 2022, with a lack of optimum habitat along Boreham Brook and therefore unlikely to be relevant to the Scheme.

Key to symbols and abbreviations: ✓ = yes, x = no, ? = possibly, see Supporting Comments for further rationale. LoWS = Local Wildlife Site

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

Legally protected species are those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); and, Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2018.

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

Other notable species include native species of conservation concern listed in the LBAP (except species that are also of Principal Importance), those that are Nationally Rare, Scarce or Red Data List, and non-native controlled weed species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

4 Discussion

4.1 Overview

- 4.1.1 No new protected species constraints have been identified that changes the conclusions of the ES. A summary of the relevant species constraints along the cable route and sub-station extension is provided below.

4.2 Badger

- 4.2.1 Badgers are present within and adjacent to the Cable route and substation extension land. Due to their presence and the highly mobile nature of this species within the Cable route and substation extension land, further surveys will be required prior to commencing construction of the Scheme to determine the potential constraints and whether mitigation and/or relevant licences are required to avoid impacts to badgers or their setts.

4.3 Bats

- 4.3.1 No trees suitable for roosting bats are likely to be impacted by the Scheme. If trees suitable for roosting bats are identified prior to construction (e.g. due to changes in the detailed design, or change to the roost suitability of trees) then a survey to assess the presence or likely absence of roosting bats is required prior to construction.

4.4 Breeding birds

- 4.4.1 Habitats occurring within the Cable route and substation extension land are likely to support nesting birds during the breeding season. The Scheme has the potential to result in the direct loss of small areas of habitat used by protected and notable bird species, where any scrub/tree or other ground clearance work is required. There may also be disturbance to nearby nesting Schedule 1 species such as hobby, if present. As proposed in the ES, any site clearance work will seek to avoid the breeding bird season (the breeding season is defined as March to August inclusive) or have measures in place to avoid disturbance of active nests/breeding sites during the breeding season. Habitat re-instatement will be required following completion of cable route work.

4.5 Otter

- 4.5.1 As stated in the ES, otter is present in the wider area and has the potential to use Boreham Brook occasionally. A survey will be made for otter holts/resting sites prior to construction work along the cable route, particularly within 50 m of the Brook in the woodland/scrub and bankside habitats. If otter holts/resting sites are present then the micro-siting of the cable route (within the parameters assessed by the DCO Application) will need to avoid these

features. If this is not possible, then further survey and mitigation work (including licensing) is likely to be required prior to construction.

4.6 Reptiles

- 4.6.1 No significant impacts are likely on reptiles, as only a limited area of suitable terrestrial habitat is present with the relevant section of Boreham Pits LoWs (Annex A, Photo 6) with minimal habitat loss predicted in this area. Due to the risk of reptiles having a transitory presence on the Cable route and substation extension land, as proposed in the ES a watching brief is proposed during ground clearance work to avoid killing or injuring reptiles. The habitat will be re-assessed for reptile suitability prior to work commencing to determine the risk to reptiles.

5 Conclusions

- 5.1.1 The findings of the survey confirm the description of the baseline conditions in the **ES [EN010118/APP/6.1 and EN010118/APP/6.2]**. The mitigation measures and conclusions in the ES also remain valid.
- 5.1.2 The following protected species considerations are proposed following DCO consent and prior to starting work on the cable route and sub-station extension area. This includes further surveys that likely to be required to update the baseline due to the time gap from the baseline surveys and start of construction. There are no new mitigation measures not already presented in the ES listed below:
- 5.1.3 Badger – update survey to determine location of existing and new badger setts in relation to the Scheme to inform avoidance, mitigation and any potential licensing requirements.
- 5.1.4 Bats – impacts to trees with potential roosts are currently avoided. If the Scheme requires tree removal along the cable route then update bat roost surveys to determine appropriate mitigation/licensing prior to construction.
- 5.1.5 Breeding birds – survey for Schedule 1 bird nesting locations prior to works commencing to assess the potential for disturbance. The timing of vegetation clearance will avoid the breeding season (March-August) or measures put in place to avoid disturbance. Habitats damaged or lost will be re-instated, including new tree/shrub planting following completion of the cable route work.
- 5.1.6 Otter – check for otter holts/resting sites in suitable habitat along Boreham Brook prior to work commencing. If present, the cable route will need to avoid these holts/resting sites or else further survey and mitigation work will be required.
- 5.1.7 Reptiles – re-assess habitats prior to work commencing and a watching brief by an ecologist during vegetation site clearance work.

- 5.1.8 The outlined constraints will need to be reassessed if the design and layout of the Scheme change prior to starting work or if there are any significant changes in the use or management of the land that would affect the habitats and species.

Annexes

Annex A –Photographs



P1 – Boreham Brook



P2– Boreham Brook



P3 – Boreham Brook



P4 – Mature willow along Boreham Brook



P5 – Substation extension field as per the baseline reported.

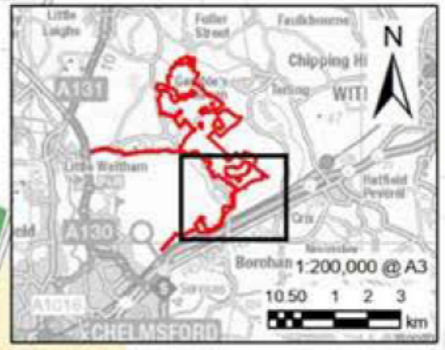
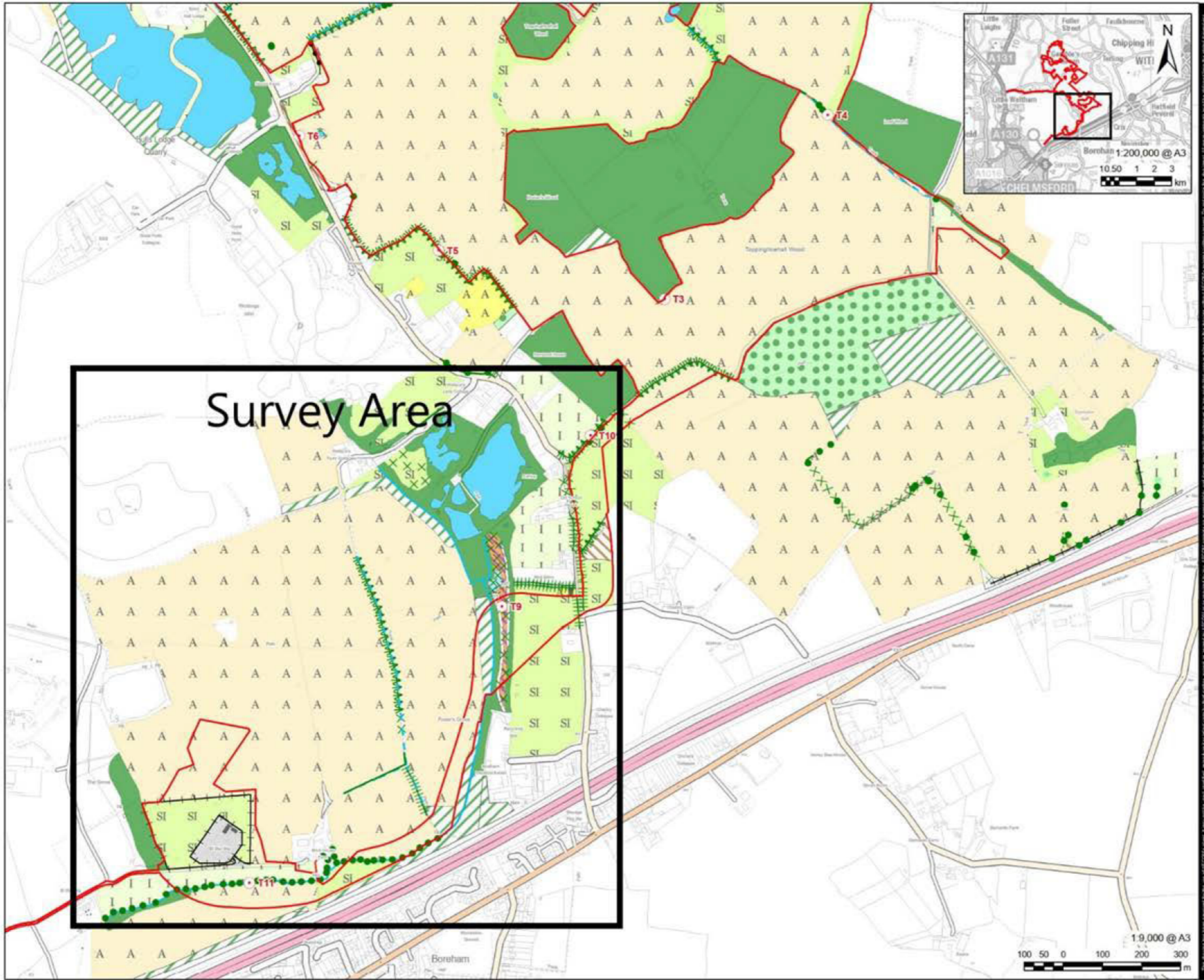


P6 – Boreham Pits LoWS, dominated by tall ruderal herbs and scrub at the cable route location.

Annex B – Survey Area

Revision: 0 Drawn: BM Checked: TG Approved: PD Date: 2022-01-06

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LEGEND

- Order Limits
- Target note
- Broadleaved tree
- X Scattered scrub
- + Coniferous tree
- X X Scrub line
- ● ● ● Broadleaved tree line
- Running water
- Intact species-poor hedge
- - - Defunct species-poor hedge
- Native species-rich hedge with trees
- Species-poor hedge with trees
- + Fence
- Wall
- Dry ditch
- ● ● ● Earth bank
- Broadleaved semi-natural woodland
- Broadleaved plantation woodland
- Mixed semi-natural woodland
- Dense Scrub
- Scattered Scrub
- Improved grassland
- B5 - Marshmarshy grassland
- Poor semi-improved grassland
- Tall ruderal
- Swamp
- Standing water
- G2 - Running water
- Arable
- Amenity grassland
- Building
- Bare ground
- Hard surface

NOTES

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ISSUE PURPOSE

ES

PROJECT NUMBER

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FIGURE TITLE

Phase 1 Habitat Survey

