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16th April 2021

Dear Katherine

RE: Land West of Sheffield Road, Hoyland – Ecological Appraisal Additional Attenuation Land

The below provides details of habitat and preliminary protected species surveys of a single land parcel north of the existing attenuation proposals granted approval by Barnsley Metropolitan Borough Council on 9th November 2020 (Planning Application No. 2020/0647).

Context

Land boundaries covered by the existing planning permission granted under a hybrid application (referenced above) lie adjacent to the east and south and to the north (beyond Bell Ground woodland). Proposals are for an enlarged attenuation basin requiring the loss of much of the arable land in the adjacent field north of the existing proposals. New proposals would be offset from the northern and western field boundaries and the southern boundary hedge (between consented scheme and new proposals) would be lost. Impacts to the north eastern boundary hedge are unchanged.

Biodiversity Net Gain calculations accompanying a separate full planning application for attenuation proposals (which this report informs) also cover a single arable parcel and some limited woodland edge habitat adjacent the site herein described, that was fully assessed as part of the above hybrid application in 2020.

Methodology

Desk Study

Data from Barnsley Biological Records Centre, South Yorkshire Badger Group and the Multi Agency Government Information Centre (MAGIC) gathered as part of the initial planning application was reviewed. Consistent with the previous assessment search areas related to the significance of sites and species and potential zones of influence as follows: 5km for sites of International Importance; 2km for sites of National or Regional Importance; and 1km for sites of County Importance and protected species.

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Field Survey

The new land was surveyed in accordance with the standard survey methodology (Joint Nature Conservancy Committee, 2010¹). Habitats were also assessed in accordance with UK Habitat assessment criteria as detailed within The Biodiversity Metric 2.0 Technical Supplement (Natural England July, 2019²). Hedgerows were surveyed using the Hedgerow Evaluation and Grading System (HEGS³) and against the wildlife and landscape criteria of the Hedgerow Regulations 1997. Assessment under the archaeological criteria falls outside the scope of this assessment.

A single tree was identified and inspected for Potential Roosting Features (Based on P16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015⁴ and Bat Conservation Trust guidelines⁵) including: man-made holes, woodpecker holes, cracks/splits, loose or flaking bark, matted ivy stems over 50mm diameter and other hollows or cavities.

Survey was undertaken on 26th March 2021 by Andrew Burrows, an experienced ecologist and Associate CIEEM member with over ten years of field survey experience, a FISC level 4 botanical surveyor and licenced bat ecologist (Natural England Licence no. 2020-48320-CLS-CLS).

Results

Desk Study

No statutory designations fall within the site boundary and consistent with the previous assessment (including of adjacent land) no International nature conservation designations were recorded within 5km. The nearest National designation is Potter Holes Local Nature Reserve (LNR) designated for recreation within semi-natural woodland and is approximately 1.6km north west of the site. Elsecar Reservoir LNR is over 2km to the east and outside the relevant search area.

Two Local Wildlife Sites (LWS) lie within 1km; Black Lane LWS is approximately 460m to the south; and Skiers Spring Wood is 800m to the east; and are designated for species-rich hedges and ancient semi-natural woodland respectively.

Protected species records for the vicinity of the site are provided in the results section below where relevant to the habitat suitability recorded.

Results

Field Survey (See Figure 1 Phase 1 Habitat Plan)

Habitats

The site comprised approximately 2.7 hectares, the central portion of which supported heavily cultivated arable land that had been ploughed and left untouched for some months so that a sparse seedling growth of willowherb *Epilobium sp.* and phacelia *Phacelia sp.* was visible. Field margins were less than 1m wide and supported a poorly developed growth of grasses and herbs including abundant Yorkshire Fog *Holcus lanatus* and perennial rye-grass *Lolium perenne* and a few herbs such as creeping buttercup *Ranunculus repens*, common nettle *Urtica dioica* and square-stalked willowherb *Epilobium tetragonum*.

The single hedgerow within the site (H1) was recorded at the southern boundary with approximate dimensions of 145m L x 3m H x 2.5m W and supported three canopy species: hawthorn *Crataegus*

¹ JNCC (2010), Handbook for Phase 1 habitat survey - a technique for environmental audit

² Natural England Joint Publication (July 2019) The Biodiversity Metric 2.0 Technical Supplement – auditing and accounting for biodiversity (Beta Edition). Natural England.

³ Clements, D.K., & Tofts, R.J. (1992). Hedgerow Evaluation and Grading System (HEGS): A methodology for the ecological survey, evaluation and grading of hedgerows. Countryside Planning and Management

⁴ BSI Publications (2015) *BS 8596:2015 Surveying for bats in trees and woodland – Guide*. BSI Standards Publication. London.

⁵ Collins J. (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines (3rd Edition)*. Bat Conservation Trust.

monogyna, dog-rose *Rosa canina* and elder *sambucus nigra*. Average canopy diversity was just 1.5 species and it supported no end connections and no other associated features and was not considered 'Important' under the Hedgerow Regulations. The feature was considered to be of moderate value under HEGS (grade -3) and scoring against UK Habitats assessment criteria showed that it failed on a single attribute namely that it was bordered by less than 1m of undisturbed ground on both sides. Given the criteria allow for up to 2 failures (albeit in separate structural groups) to achieve 'Good' condition H1 was therefore considered to meet this condition. A second hedgerow (H2) was adjacent the north eastern site boundary with dimensions 190m L x 4m+ H x 3m W, additional to the three canopy species recorded above it also supported common ash *Fraxinus excelsior*, field rose *Rosa arvensis*, bramble *Rubus fruticosus* and sycamore *Acer pseudoplatanus*. The average canopy diversity was 3 and the hedgerow was not considered to be 'Important' under the Hedgerow Regulations. It supported 4 end connections, one mature tree and was considered of moderately high to high value under HEGS (grade -2). It achieved all the attributes within the UK Habitats assessment and consistent with previous assessment was of 'Good' condition. A compartment of young plantation woodland/scrub dominated by hawthorn was also noted adjacent the south eastern corner of the site.

Fauna

The habitats described above provided limited suitability for protected or notable species. The enclosed field with mature woodland at its northern boundary are considered to provide some limited opportunities for ground nesting birds (such as when vegetated during a normal arable cropping cycle) and the hedgerow provided some suitability for nesting birds. Dunnock *Prunella modularis*, an Amber List Bird of Conservation Concern⁶ was recorded singing within hedgerow adjacent the site. Surveys of arable land to the north conducted in 2019 and 2020 to inform the earlier application assessed both breeding (FPCR, June 2020a⁷) and winter bird (FPCR, June (2020b⁸) resources. A total of 42 common and widespread species were recorded during breeding bird surveys, 10 confirmed breeding, including notable species such as dunnock. Lapwing *Vanellus vanellus* were recorded as confirmed breeders within the site in 2020. Winter bird surveys recorded 48 species including 19 notable species. No winter bird activity was associated with land within the site. Desk study data recorded species including Yellowhammer *Emberiza citrinella*, skylark *Alauda arvensis*, lapwing *Vanellus vanellus*, and song thrush *Turdus philomelos* in the vicinity of the wider consented development site.

A single mature common ash (T1) was recorded adjacent the site in H2 and found to support several bat roost potential features: 1) a rot hole on the southern aspect supported a shallow open cavity (approximately 5cm deep), 4m up and completely occluded by deadwood; 2) a knothole on the same aspect (approximately 10cm across), facing the sky with dead leaves visible in its cavity and partially occluded by regrowth; and 3) a slightly larger but shallower knothole on the northern aspect occluded by deadwood. The tree was considered to provide no more than low bat roost potential. Bat activity survey in 2020 (FPCR, Sept. 2020⁹) which covered H1 and H2 recorded low levels of bat activity dominated by common pipistrelle. The nearest desk study records of bats included common pipistrelle *Pipistrellus pipistrellus* activity in woodland approximately 200m east of the site and a brown long-eared roost *Plecotus auritus* west of the M1 roughly 500m to the north west.

⁶ Eaton M.A., Aebischer N., Brown A., Hearn R., Lock L., Musgrove A., Noble D., Stroud D. and Gregory R.D. 2016. *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man*. British Birds 108, pp708-746.

⁷ FPCR Environment and Design (June 2020a) *Land West of Sheffield Road, Hoyland – Breeding Bird Survey Report*. For Newlands Developments.

⁸ FPCR Environment and Design (June 2020b) *Land West of Sheffield Road, Hoyland – Winter Bird Report*. For Newlands Developments.

⁹ FPCR Environment and Design (Sept.2020) *Land West of Sheffield Road, Hoyland – Bat and Barn Owl Report*. For Newlands Developments.

All but one of the ponds identified in the vicinity of the site were subject to great crested newt (GCN) survey in 2020 and no GCN were recorded (FPCR, June 2020c¹⁰). The remaining pond not covered by aquatic survey is approximately 230m the west of the site and will be subject to aquatic survey in April 2021. The cultivated arable was considered unsuitable for terrestrial GCN and hedgerow bases supported some limited opportunities for shelter and hibernation. Offsite habitat including scrub (a short distance to the south east) and woodland (approximately 10m north of proposals) provided far greater opportunities for terrestrial GCN if present in the vicinity. The nearest GCN record for the vicinity is from the area of Hoyland Common, approximately 1km to the north.

The site provided negligible opportunities for reptiles and more suitable habitat close by (along Black Lane) which was subject to targeted survey in 2020 (FPCR, June 2020c) was not recorded to support reptiles. No reptile records were returned within 1km of the site.

No signs of badger was recorded within the site or suitable habitat within 30m. While extensive suitable offsite habitat (woodland and scrub) was noted habitats within the site were of far more limited value. Desktop records indicated badger are present west of the M1 but aside from a single badger print no evidence of badger signs was recorded from the consented site or suitable adjacent habitat. Badger records should be regarded as confidential and not released to the public domain.

Conclusions

The new attenuation proposals are not considered significantly different from those consented and are further from the designated sites identified. Consistent with previous assessment for the wider consented scheme proposals within the new site boundary are not considered likely to impact nature conservation designations in the vicinity.

The habitats to be lost are considered to be of low botanical value supporting species that are both common and widespread both in the surrounding landscape and in lowland England more generally. The single hedgerow to be lost, while native dominant and therefore considered of Principal Importance under the Natural Environment and Rural Communities Act 2006 is considered a poor example of its habitat type supporting both poor woody species and structural diversity. Because it meets the threshold for 'Good' condition under UK Habitats criteria the proposed scheme will provide for its replacement with new species-rich hedgerow. Broadleaved woodland was noted close to the proposals which, at the nearest point will include battered slopes offset from the woodland by approximately 10m. Adjacent hedgerow and scrub will also be buffered and protected from proposals in accordance with the British Standard (BS5837:2012) and the following best practice Guidance for Pollution Prevention (GPP) will be followed consistent with previous recommendations including to minimise harm to Black Lane LWS south of the site:

- GPP 21: Pollution Incident Response Plans; and
- GPP 22: Dealing with spills.

Given the open nature of the proposed attenuation, spread over two existing fields, proposals will retain suitability for ground nesting birds such as lapwing with seasonally damp conditions possibly providing greater suitability for this species. Consistent with assessment for the wider site proposals are not considered likely to have a significant impact on local bird populations.

All nesting wild birds, their nests, eggs and dependant young are protected from harm under the Wildlife and Countryside Act 1981 (as amended). If the arable land is left unmanaged prior to works and vegetation is allowed to colonise it would provide suitability for ground nesting birds such as lapwing. To minimise the risk to ground nesting birds, where works are scheduled prior to September

¹⁰ FPCR Environment and Design (June 2020c) *Land West of Sheffield Road, Hoyland – Great Crested Newt & Reptile Report*. For Newlands Developments.

2021, the arable compartment should be maintained free of vegetation through regular cultivation. Otherwise, where vegetation is allowed to develop this should be removed, like the hedgerow scrub, outside the nesting bird season (March to August inclusive). Where this is not possible vegetation should be checked by an ecologist prior to clearance. If active nests are found, vegetation should be left untouched and suitably buffered from works until all birds have fledged. Specific advice should be sought prior to undertaking the clearance.

A single tree T1 supported low suitability for roosting bats and in accordance with BCT guidelines no further survey is recommended. The tree will in any case be retained within the existing hedgerow and its presence is not considered a constraint.

The presence of GCN in the vicinity of the site has been ruled-out through aquatic survey which covered all but a single pond approximately 230m from proposals (at the nearest point). This remaining pond will be subject to survey in April to determine the presence/absence of GCN. In the unlikely event that GCN are present in the offsite pond, proposals, including removal of a limited extent of suitable terrestrial habitat (hedgerow) would be undertaken in accordance with a detailed mitigation strategy informed by the survey data and agreed, where necessary, with Natural England under a European Protected Species Licence to minimise potential harm to GCN.

The site supported very limited suitability for reptiles and their presence within suitable habitat in the vicinity has been ruled-out through targeted survey therefore reptiles are not considered a constraint and no further survey is required.

No evidence of use of the site, or suitable habitat in its vicinity, by badger has been recorded and they are not considered to represent a constraint. Proposals outlined below will provide greater opportunities for badger foraging and existing connectivity around and through the site will be maintained. Consistent with previous recommendations given the presence of extensive badger suitability in the vicinity best practice measures to minimise harm will be followed including:

- Installing ramped access from holes left open overnight.
- Capping open pipes 250mm or more in diameter.
- Compacting spoil mounds with a digger bucket to deter badger digging and locating mounds away from suitable badger habitat.
- Regular site fencing checks and repair as necessary.

Biodiversity Net Gain & Site Design

Detailed Biodiversity Net Gain (BNG) calculations include re-design of the consented attenuation scheme to the south of the above-described site. Design for the new attenuation scheme (across two field compartments) will include the following features providing enhancement for a variety of fauna including foraging badgers and bats and breeding birds and amphibians:

- Like for like replacement of native hedgerow with species-rich hedges (5 native shrubs per 30m)
- Native scrub – 'Good' condition
- Neutral grassland – 'Moderate' condition
- Pond (within some of the attenuation basin) - planted with native aquatic/marginal species and supporting permanent water for most of the year.

Details of the above proposals are provided in separate BNG calculations that demonstrate delivery of 45.98 Biodiversity Units (BU) for habitats and 4.13 BU for hedgerows across both the new site area and the consented attenuation land adjacent its south and where the existing baseline value is 17.41 BU and 4.07 BU for habitats and hedgerows respectively.

The baseline BU value of the new site area (see Figure 1 Phase 1 habitat Plan) is 6.61 BU (for habitats) and 4.07 BU (for hedgerows). The scheme will provide a 160.31% gain overall for habitats (+28.32 BU) and a 1.43% gain for hedgerows.

Habitat management details for the revised scheme to achieve the target conditions will be set out in a separate revised Biodiversity Enhancement Management Plan.

I trust the above provides sufficiently detailed information but if further is required please contact FPCR at our offices.

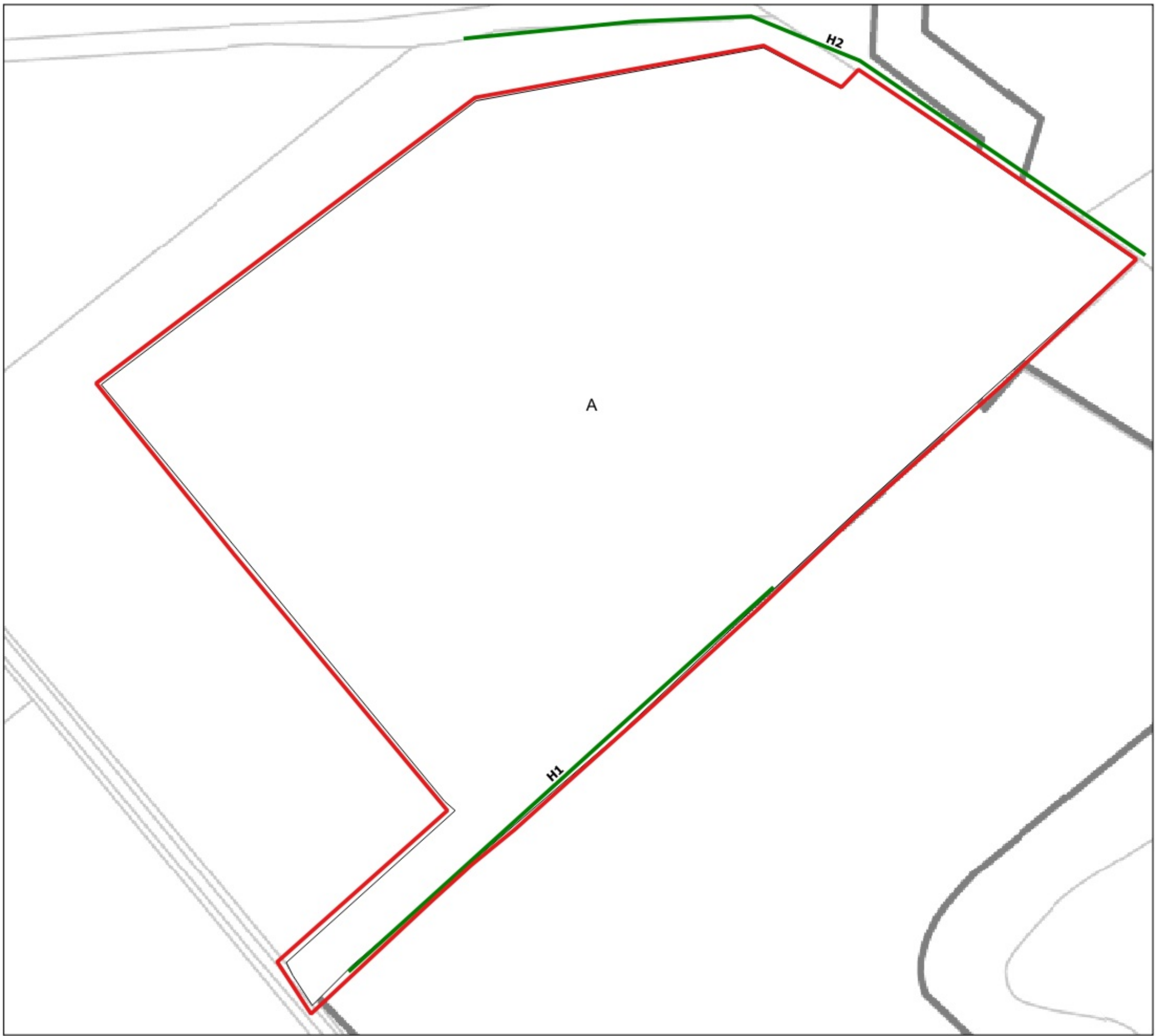
Yours sincerely,



Andrew Burrows
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Enc. Figure 1 Phase 1 Habitat Plan



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Key

- Site Boundary
- A Cultivated/disturbed land - arable
- Hedgerow (with ref)