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PRELIMINARY ECOLOGICAL APPRAISAL:

MULTI-USE GAMES AREA, BARNSLEY COLLEGE

FINAL

JANUARY 2022

DOCUMENT CONTROL

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EXECUTIVE SUMMARY

ESL (Ecological Services) Limited (ESL) has been commissioned by Stem Architects Ltd to undertake a Preliminary Ecological Appraisal in order to identify any constraints and opportunities associated with a planning application for a proposed multi-use games area at Barnsley College.

Summary of findings

- No sites with statutory or non-statutory designations will be affected by the proposed development.
- The only species likely to be a material consideration in the determination of this application is birds. All other species were scoped out due to the absence, low value and/or the unsuitability of the habitats present on or adjacent to the site.
- The site comprises one habitat type, modified grassland, which covers an area of 0.11ha and is assessed as being in 'poor' condition, generating 0.22BU (biodiversity units).

Summary of recommendations.

- Habitats suitable for use by nesting birds must be removed outside the nesting season (March to August inclusive), otherwise, an ecologist must make a search for active nests prior to clearance. Any active nests must be protected until the young have fledged.
- Four wooden nest boxes will be erected on suitable adjacent trees to compensate for the loss of nesting opportunity for birds.
- Tree and shrub planting is recommended to provide long-term nesting and feeding habitats for birds. This will also enable the scheme to achieve 10% biodiversity net gain.

PRELIMINARY ECOLOGICAL APPRAISAL: MULTI-USE GAMES AREA, BARNSLEY COLLEGE

1 INTRODUCTION

1.1 ESL has been commissioned by Stem Architects Ltd to undertake a Preliminary Ecological Appraisal of land at Barnsley College (hereafter referred to as the 'Site') in order to identify any constraints and opportunities associated with a planning application for a proposed multi-use games area (MUGA).

1.2 The aim of this appraisal is to:

- Determine any likely effects on any site designated for nature conservation.
- Characterise the habitats and species present and determine their conservation status.
- Assess the likelihood of any adverse ecological effects and identify whether further information is required to do so.
- Calculate the baseline biodiversity value of the Site and make pragmatic suggestions on how to achieve 10% biodiversity net gain.

1.3 A Site location map is given as Figure 1 and an ecological constraints plan and biodiversity net gain baseline as Figure 2. Photographs are included within the text. Species are referred to by their English name throughout, followed by scientific name where first mentioned. Legal protection for selected species is given as Appendix 1.

2 NATIONAL AND LOCAL PLANNING POLICY

2.1 The Barnsley Local Plan, adopted January 2019 (Policy BIO1: Biodiversity and Geodiversity) outlines that all development will be expected to conserve and enhance the biodiversity features of the borough by:

- Protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified via Section 41 of the Natural Environment and Rural Communities Act, 2006 (for list of the species and habitats of principal importance) and in the Barnsley Biodiversity Action Plan.
- Maximising biodiversity and geodiversity opportunities in and around new developments.
- Proposals will be expected to have followed the national mitigation hierarchy (avoid, mitigate, compensate), which is used to evaluate the impacts of a development on biodiversity interest.
- Encouraging provision of biodiversity enhancements.

2.2 The Environment Act, 2021 (Schedule 14: Biodiversity gain as condition of planning permission) states that:

- The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.
- The biodiversity value attributable to the development is the total of:
    - The post-development biodiversity value of the onsite habitat.
    - The biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development.
    - The biodiversity value of any biodiversity credits purchased for the development.
- The relevant percentage is set at 10%.

3 DESK STUDY

3.1 METHODS

3.1.1 The Natural England 'MAGIC' and 'Nature on the Map' websites were consulted to obtain information on any internationally and nationally protected sites and for citations of any Sites of Special Scientific Interest (SSSI) or National Nature Reserves (NNR) within 5km of the Site. Information was also sought on any Local Nature Reserves (LNR) within a 1.5km radius of the Site.

3.1.2 The Sheffield Biological Records Centre (SBRC) was asked to provide a data report on local sites of conservation interest including Local Wildlife Sites (LWS) and notable species within a 1.5km search area.

3.2 RESULTS

3.2.1 The SBRC data search was provided on 14 January 2022. The results are summarised in Tables 1 and 2 below; pre-2002 records have been screened out. For the purposes of this report, 'Important Species' are those:

- Having statutory protection.
- Listed as Species of Principal Importance as set out in Section 41 of the Natural Environment and Rural Communities Act, 2006 (formerly UK BAP species).
- Listed in the Vascular Plant Red List for England (Stroh *et al.*, 2014).
- Listed in the Barnsley Biodiversity Action Plan (Barnsley Biodiversity Trust, 2010).

TABLE 1. Sites with statutory or non-statutory protection for nature conservation within the search area.

NAME, DESIGNATION AND DESCRIPTION	PROXIMITY TO THE SITE
The closest nationally designated biological site is **Seckar Woods SSSI**. A mosaic of ancient woodland, heathland and wetland.	6.8km to the north.
Old Mill Lane LWS. Located on the River Dearne, important for its broadleaved woodlands, floodplains and standing water, as well as a maternity roost and foraging habitat for Daubenton's bat.	0.5km to the east.
Barnsley Canal at Wilthorpe LWS. Includes a stretch of disused Barnsley Canal and adjacent pastoral grassland, comprising unimproved neutral and semi-improved neutral and acidic grasslands, standing water and broadleaved woodland.	0.75km to the north.
Cliff Wood LWS. Comprising oak- and birch-dominated broadleaved woodland and unimproved neutral grassland floodplain within the Dearne Valley Park.	1.5km to the east.

TABLE 2. Important species within the search area.

SPECIES/GROUP	PROXIMITY TO THE SITE
10 records for great crested newt *Triturus cristatus*, 2012-2019.	All records provided from the area of Barnsley Canal, approximately 0.75km to the north.
33 records for other amphibians consisting of common toad *Bufo bufo*, common frog *Rana temporaria* and smooth newt *Lissotriton vulgaris*, 2003-2021.	All records from Barnsley Canal and the Dearne Valley.
2 records for reptiles consisting common lizard *Zootoca vivipara*, 2019.	Both located 1km to the southeast.
2 records for badger *Meles meles*, 2017-2019.	An inactive outlier sett record 1.1km to the east and an active outlier sett 1.2km to the southeast.
4 records for hedgehog *Erinaceus europaeus*, 2012-2019.	Closest located 1km to the southeast.
58 records for at least 6 species of bats, 2002-2017.	All associated with the River Dearne corridor.
1,713 records for 111 species of birds, 2003-2021.	All within 1.5km of the Site.
65 records for Schedule-9 invasive plant species Indian balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica* and Japanese rose *Rosa rugosa*, 2003-2020.	All associated with the River Dearne corridor.

3.3 ASSESSMENT

Sites with statutory or non-statutory protection.

3.3.1 The scheme is to be undertaken exclusively within college grounds and within existing amenity grassland. The potential risk of the scheme resulting in an adverse effect on any site with statutory or non-statutory protection is negligible.

Important species.

3.3.2 The significance of records for important species pertinent to the scheme is discussed further, where relevant, in Sections 4-5.

4 HABITATS AND PLANT SPECIES

4.1 METHODS

4.1.1 A Preliminary Ecological Appraisal (PEA) was undertaken on 14 January 2022 by Luke Hartley ACIEEM in accordance with best practice guidelines (JNCC, 2010, CIEEM, 2017). All habitats were characterised by identifying the dominant and typical species, given a UK Habitat classification (UK Hab, 2018) and notes were made on adjacent land use. A search was made for any invasive, non-native plant species listed on Schedule-9 of the Wildlife and Countryside Act, 1981 (and as amended).

4.2 RESULTS

Overview.

4.2.1 The Site is located within Barnsley College's Sports Centre grounds, near to the centre of Barnsley in a heavily urbanised area. Land immediately to the north and west comprises residential use and to the east and south there is a railway corridor with further residential use.

Modified grassland (g4) with scattered trees (11).

4.2.2 The Site comprises close mown, amenity grassland dominated by coarse grasses, with white clover *Trifolium repens*, creeping buttercup *Ranunculus repens* and occasional other herbs such as ribwort plantain *Plantago lanceolata* and common nettle *Urtica dioica*.

4.2.3 Two semi-mature cherry trees *Prunus* sp. are present within the footprint of the scheme and are the only two trees likely to be impacted. Additional semi-mature trees of various species are present within the vicinity, as well as along existing access tracks.

Developed land, sealed surface (u1b).

4.2.4 Proposed access to the MUGA facility comprises existing hardstanding. Vegetation is limited to occasional mosses and herbs such as petty spurge *Euphorbia peplus* and reflexed stonecrop *Petrosedum rupestre*.

	
Photograph 1. Area of proposed MUGA, showing mown grassland and semi-mature cherry trees.	**Photograph 2.** Existing hardstanding to be used as access path to the new facility.

4.3 ASSESSMENT

4.3.1 No plant species recorded is listed above the 'Least Concern' threat level in the British Red Data Book (Stroh *et al*., 2014). The habitats, plant communities and individual species are common and widespread in a local and national context. No further habitat/botanical assessment is required. No Schedule-9 non-native invasive plant species were recorded on or adjacent to the Site.

5 BIRDS

5.1 METHODS

5.1.1 All birds seen using the Site during the survey were recorded and the Site was assessed for future use by birds in season.

5.2 RESULTS

5.2.1 No birds were recorded within the footprint of the scheme during the survey, however, common urban and garden birds such as wood pigeon *Columba palumbus* and blackbird *Turdus merula* were seen on land adjacent to the Site. Nesting opportunities are limited to the two cherry trees.

5.3 ASSESSMENT

5.3.1 Nests of any bird species are protected from destruction or damage (Appendix 1). Use of trees on the Site by breeding birds can be expected during the nesting season, which for most species extends from March to August inclusive.

6 BIODIVERSITY NET GAIN FEASIBILITY ASSESSMENT

6.1 METHODS

6.1.1 The habitats were condition-assessed using the current Defra Biodiversity Metric 3.0 methodology (Panks *et al.,* 2021), hereafter referred to as 'the Metric'. The Metric calculation tool was used to determine the value of the Site's biodiversity as BUs. The baseline has been taken as the footprint of the scheme.

6.2 BASELINE CONDITIONS

6.2.1 The Site comprises one habitat type; '*Modified grassland'*, which covers an area of 0.11ha and is assessed as being in '*poor*' condition, generating 0.22BU. The contribution of each habitat type is given in Table 1 and illustrated on Figure 2.

TABLE 1. Baseline habitats.

Broad Habitat Category	Habitat Type (Condition)	Habitat Area (ha)	Habitat (BU)
Grassland	Modified grassland (Poor)	0.11	0.22
Total		**0.11**	**0.22**

6.3 FEASIBILITY OF BIODIVERSITY NET GAIN

6.3.1 The strategic planting of locally-appropriate tree and shrub species amongst the existing semi-mature trees present within the amenity grassland between the western side of the existing path and adjacent houses (shown on Figure 2) would create a small area (0.06ha) of *'other woodland; broadleaved'* habitat. This would achieve a minimum biodiversity net gain of 10.94%, thus exceeding the 10% target.

7 RECOMMENDATIONS

7.1 FURTHER SURVEYS

7.1.1 There is currently no requirement for any further surveys. Any effects on habitats or species can be reasonably predicted and with sufficient confidence to inform necessary mitigation measures.

7.2 PROTECTIVE AND ENHANCEMENT MEASURES

Birds.

7.2.1 As active bird nests are protected by law, the removal of any habitat suitable for use by nesting birds (in this case, the two cherry trees) must be undertaken outside the nesting bird season, which typically runs from March to August inclusive. If this is not possible, an ecologist must carry out a search for active nests before work begins. Any active nest must be cordoned off and left until the young have fledged.

7.2.2 In order to compensate for the loss of nesting habitat in the short-term, four wooden nest boxes will be erected on suitable adjacent trees. This will consist of two hole-nesting boxes and two open-fronted nesting boxes. Suitable examples are shown in Photographs 3 and 4.

Photograph 3. Traditional wooden hole-nest box design (25mm hole).

Photograph 4. Traditional open-fronted wooden nest box design.

7.3 BIODIVERSITY NET GAIN

7.3.1 The target of 10% biodiversity net gain can be achieved easily and cost effectively through tree and shrub planting as set out in Section 6.3.1.

8 REFERENCES

Barnsley Biodiversity Action Plan, Second Edition. 2010. Barnsley Biodiversity Trust.

CIEEM. 2017. Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

Joint Nature Conservation Committee. 2010. Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit. JNCC

Natural England. 2021. The Biodiversity Metric 3.0: Calculation Tool (July 2021). Natural England.

Panks S, White N, Newsome A, Potter J, Heydon M, Mayhew E, Alvarez M, Russell T, Scott S J, Heaver M, Scott S H, Treweek J, Butcher B and Stone D. 2021. Biodiversity metric 3.0: Auditing and accounting for biodiversity – User Guide. Natural England.

Stroh P A, Leach S J, August T A, Walker K J, Pearman D A, Rumsey F J, Harrower C A, Fay M F, Martin J P, Pankhurst T, Preston C D & Taylor I. 2014. *A Vascular Plant Red List for England*. Botanical Society of Britain and Ireland, Bristol.

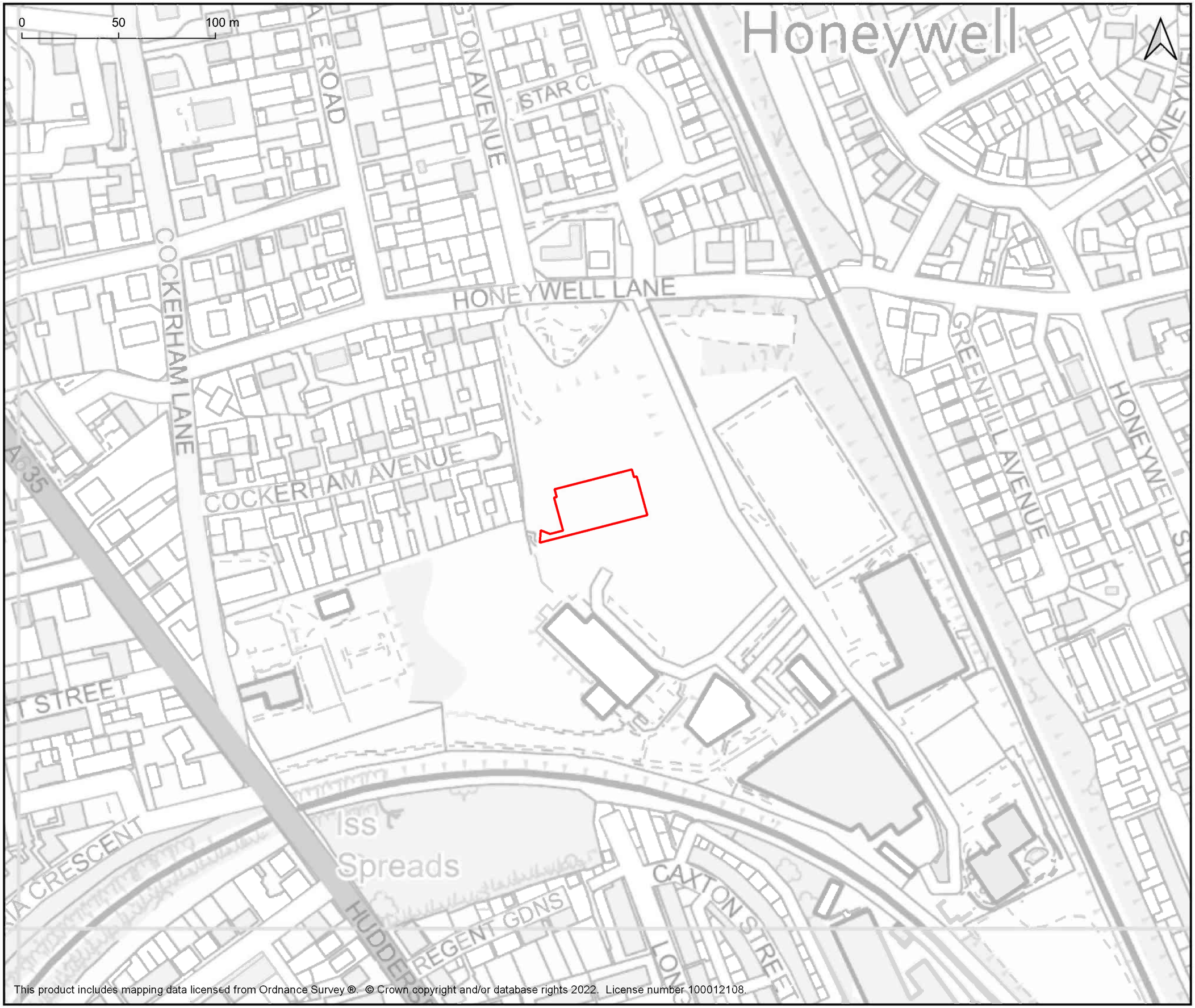
The Barnsley Local Plan. Adopted January 2019.

UK Habitat Classification Working Group, 2018. UK Habitat Classification - Habitat Definitions V1.0. UK Habitat Classification Working Group.

Wigginton M J. 1999. British Red Data Books. 1 Vascular Plants. 3rd edition. JNCC, Peterborough

KEY

Scheme footprint



SITE NAME:
Barnsley College.

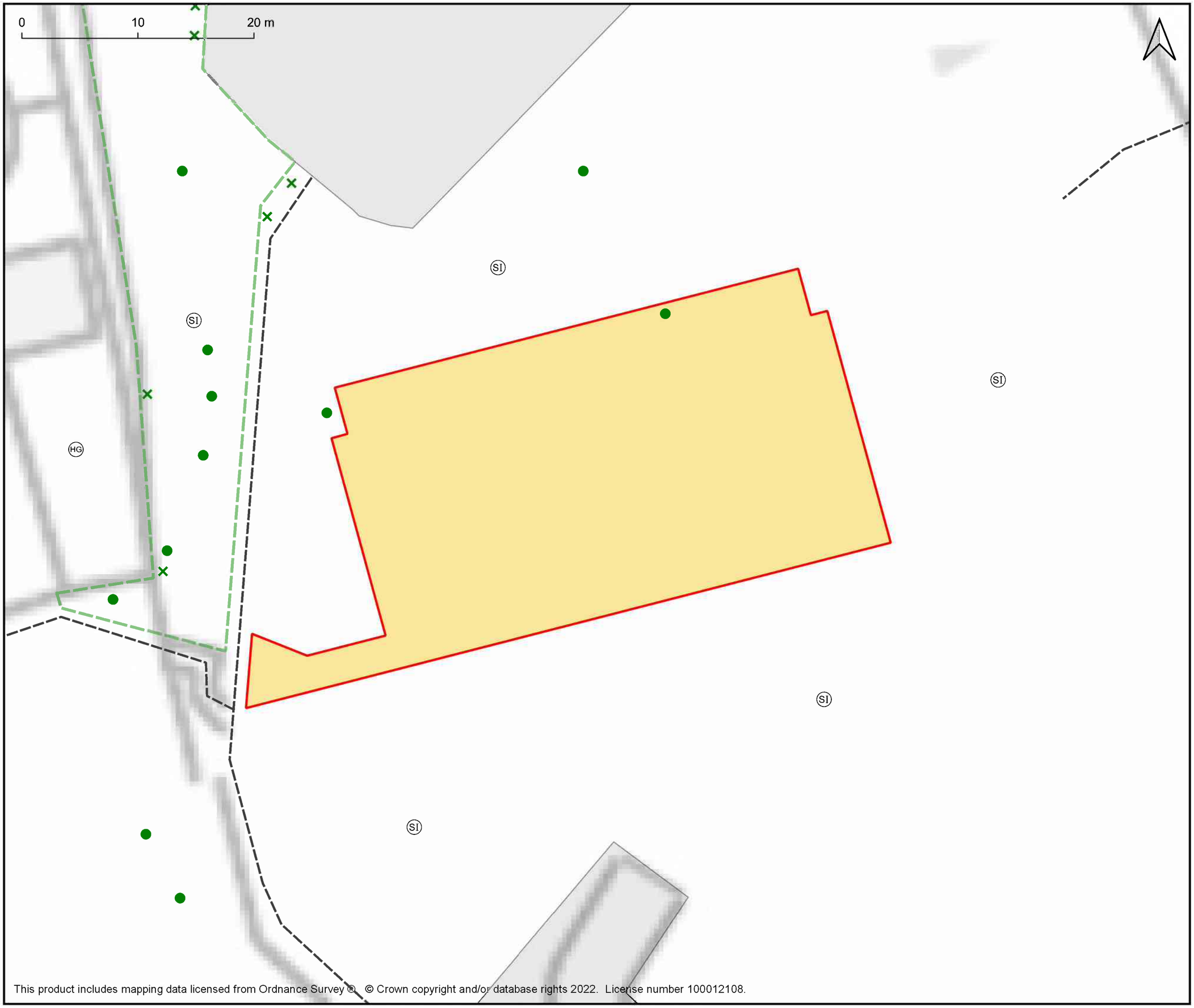
DRAWING TITLE:
Site location.

Figure 1
Dwg no.: ES91-L211-001 Date: Jan 2022

(Ecological Services) Limited

KEY

- Scheme footprint
- Tree
- Scattered scrub
- (SI) Semi-improved/modified grassland
- (HG) House and garden
- Hardstanding footpath
- Grassland - Modified grassland
- Hardstanding car park
- Recommended area of compensation tree and shrub planting



SITE NAME:
Barnsley College.

DRAWING TITLE:
Ecological constraints plan and biodiversity net gain baseline.

Figure 2
Dwg no.: ES91-L211-002 Date: Jan 2022

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APPENDIX 1

LEGAL PROTECTION

Legislation	Implications
Nesting birds (all species)	
The Wildlife and Countryside Act, 1981 (and as amended).	It is an offence to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or is being built.