envirotech

Ecological Consultants
Environmental and Rural Chartered Surveyors

Ecological site assessment to support a

BREEAM 2018 Assessment/
Planning Application

Countess Of Chester Hospital

BY

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Accuracy of report

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible the presence or absence of certain species which can and do move freely from site to site does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

Quality and Environmental Assurance

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1 INTRODUCTION

1.1 Envirotech NW Ltd was instructed to undertake an ecological appraisal of land at Countess of Chester Hospital. The client has requested that an appraisal be undertaken as a contribution to gaining environmental accreditation under a BREEAM 2018 assessment. The report is also to be used to inform the planning application. This report presents the results and conclusions following a walkover survey undertaken by Envirotech in December 2020.

1.2 The site comprises an area of buildings, hardstanding and formal amenity planting in the grounds of the Countess of Chester Hospital.

1.3 The general layout of habitat is shown on the aerial photograph overleaf (Figure 1).

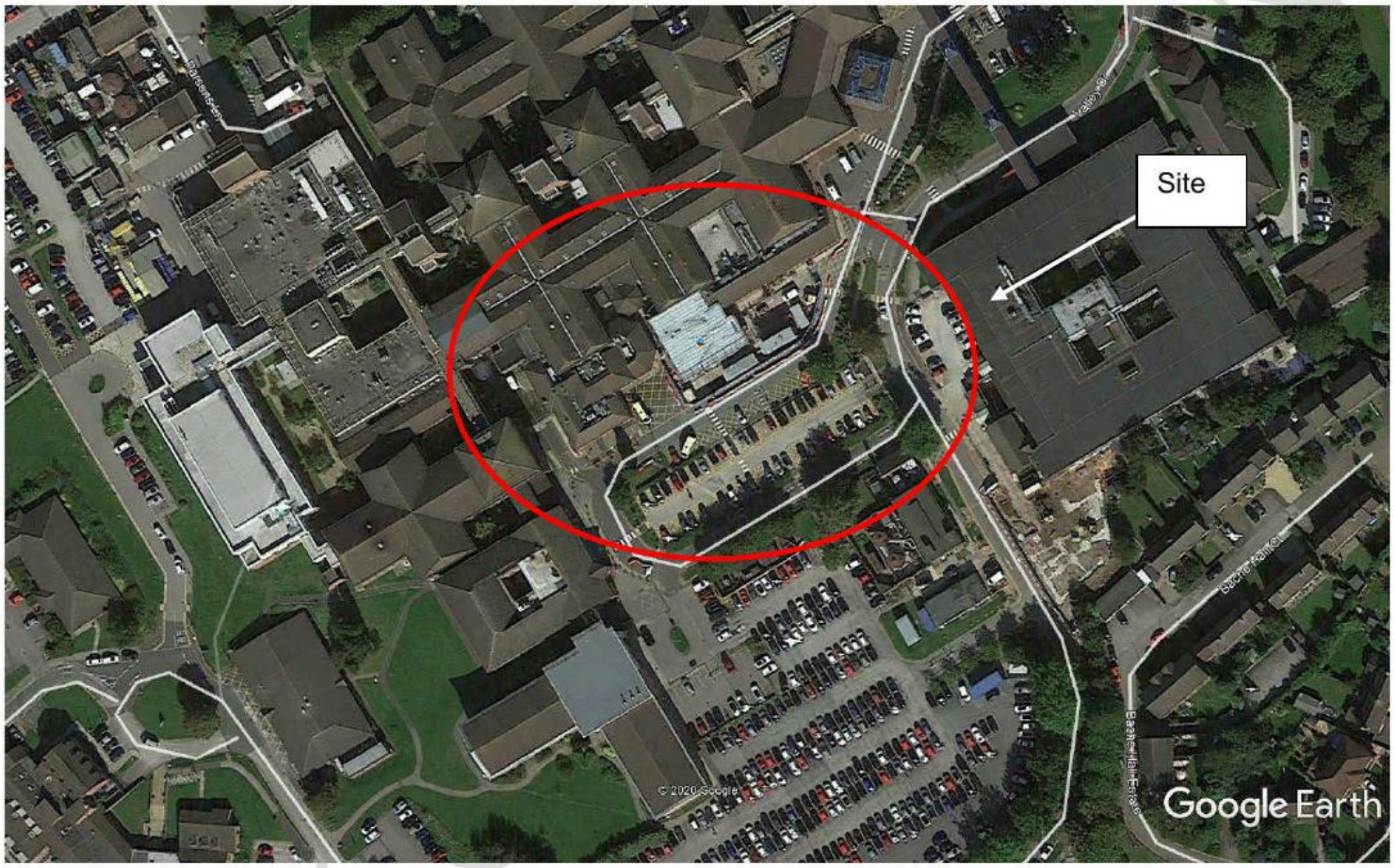


Figure 1. *Aerial map of surrounding area*

2 METHODOLOGY

2.1 It is not the purpose of this report to present a detailed discussion on the environmental accreditation process nor was Envirotech NW Limited requested to undertake this on behalf of the client with respect to ecological issues. Suffice to say, the Building Research Establishment's Environmental Assessment Method (BREEAM) considers the environmental performance of both new and existing buildings including offices and industrial units. This performance is assessed in a number of areas and which includes Land Use and Ecology

2.2 The standards to achieve credits with respect to "BREEAM" are presented in numerous documents. In this instance BREEAM New Construction – Non Domestic Properties (2018) was used. There are five ecological aspects for which credits can be awarded namely:

LE 01 Site selection– Recognising the reuse of previously developed and contaminated land where appropriate remediation has taken place.

LE 02 Ecological risks and opportunities- Identifying and understanding the ecological risks and opportunities associated with the site to inform the determination of the strategic outcome for the site.

LE 03 Managing impacts on ecology- Recognition of steps taken to avoid impacts on existing site ecology as far as possible.

LE 04 Ecological change and enhancement- Recognition of steps taken to enhance site ecology.

LE 05 Long term ecological management and maintenance- Encouraging the long term maintenance and management of ecology on site to ensure both new and existing ecological features continue to thrive.

2.3 The methodology has encompassed acquiring information and data from third parties and undertaking a site visit. The former site visit aimed to determine the general nature of the site and ecological features, past and present including ground conditions. Various sources of information were accessed including historical maps and ecological databases. The site visit was undertaken to assess the current environmental aspects and to acquire a photographic record by an ecologist who is a full member of the Institution of Environmental Sciences (IES). The survey was conducted at a time of year that target plant and animal species would be identifiable.

3 ECOLOGICAL VALUE OF THE SITE

Past use

3.1 Figure 2 presents an extract from Google earth taken in 2003. It clearly shows the site being a hospital.

3.2 At the time of the site visit undertaken by Envirotech in December 2020 the development area comprised an area of buildings, hardstanding and formal amenity planting in the grounds of the Countess Of Chester Hospital.

3.3 In the absence of evidence to the contrary we must consider that in accordance with the definitions given in LE 01 the site development footprint covers at least 75% of an area which has been previously "developed for industrial, commercial or domestic purposes in the last 50 years".

3.4 There were occasional stands of cotoneaster *(Cotoneaster simonsiino)* in the carpark. This is classified as an invasive species and is on Schedule 9 of the UK Wildlife & Countryside Act. It will require removal prior to works. We would therefore classify the site as contaminated from an ecological perspective.

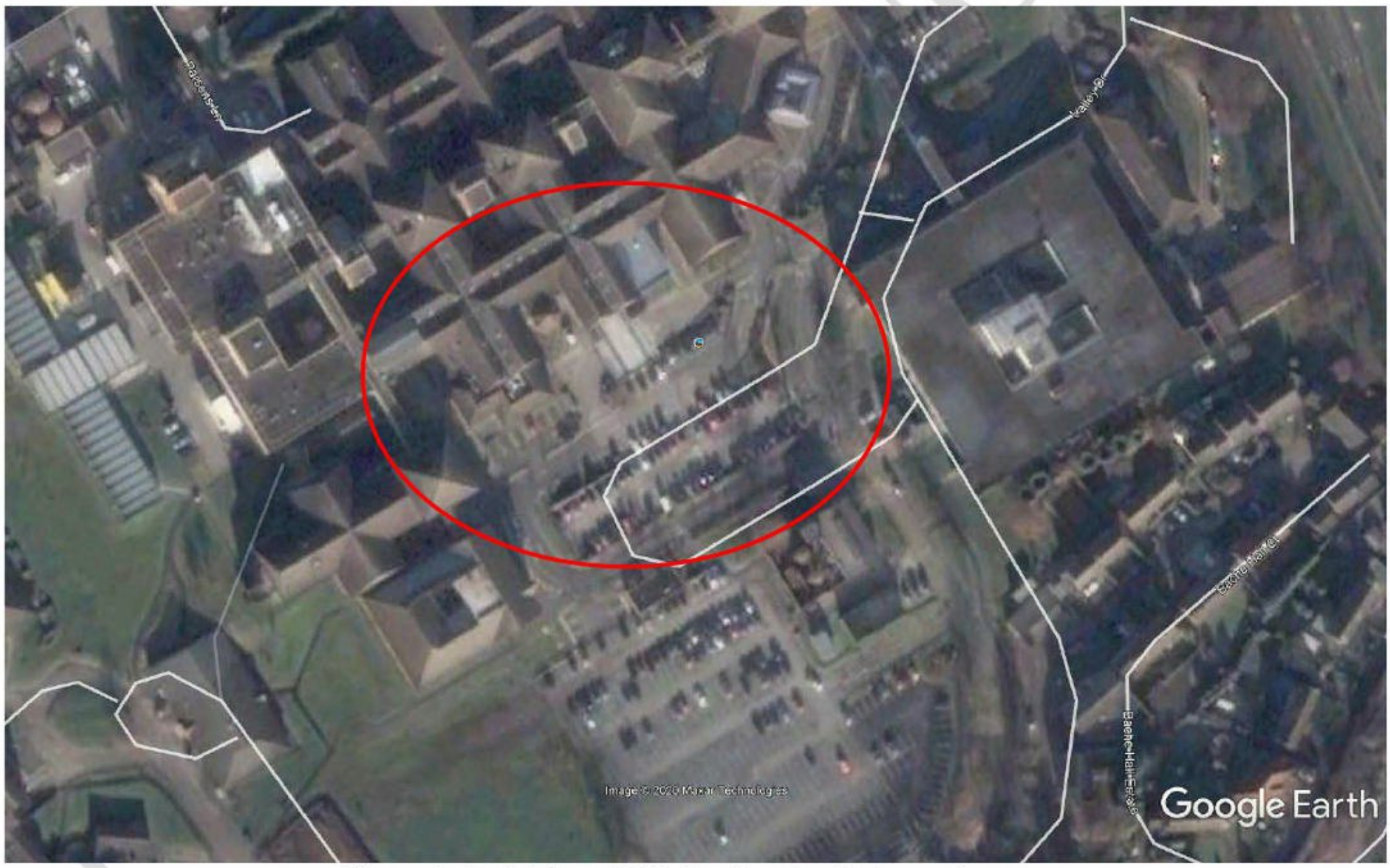


Figure 2. Aerial from 2003 showing the site's previous use

Ecology

3.5 The Multi-Agency Geographical Information Service (Magic) maps Figures 3 show the location of Ecological Habitats both for the general area and directly adjacent to the site itself. This map confirms that there are no areas of significant biological or ecological interest adjacent to the site. The site itself does not lie in any specially protected area.

MAGiC

Legend

- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

Marine Conservation Zones (England)

- Designated
- Proposed
- Recommended

Projection = OSGB36
xmin = 345400
xmax = 344800
ymin = 367200
ymax = 367000

0 0.35 0.7 km

Map produced by MAGIC on 4 January, 2021.

Copyright and data with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details. As information may be illustrative or representative rather than definitive at this stage.

Special Areas of Conservation (Marine Components GB)

Designated

Possible

Special Protection Areas (Marine Components GB)

Figure 3 - *Statutory designated sites*

Site survey

3.6 On the 15th December 2020 a site survey was undertaken by Envirotech, the purpose of which was to inspect the site and the adjacent environs. A habitat assessment of the site was undertaken and a habitat map and target notes compiled.

Habitat map

3.7 A habitat map of the site and adjacent area is shown on Figure 4. Photographs of the site are included at Figure 5.

3.8 Due to the previous use of the site the composition of the vegetation is likely to be heavily influenced by surrounding land use.

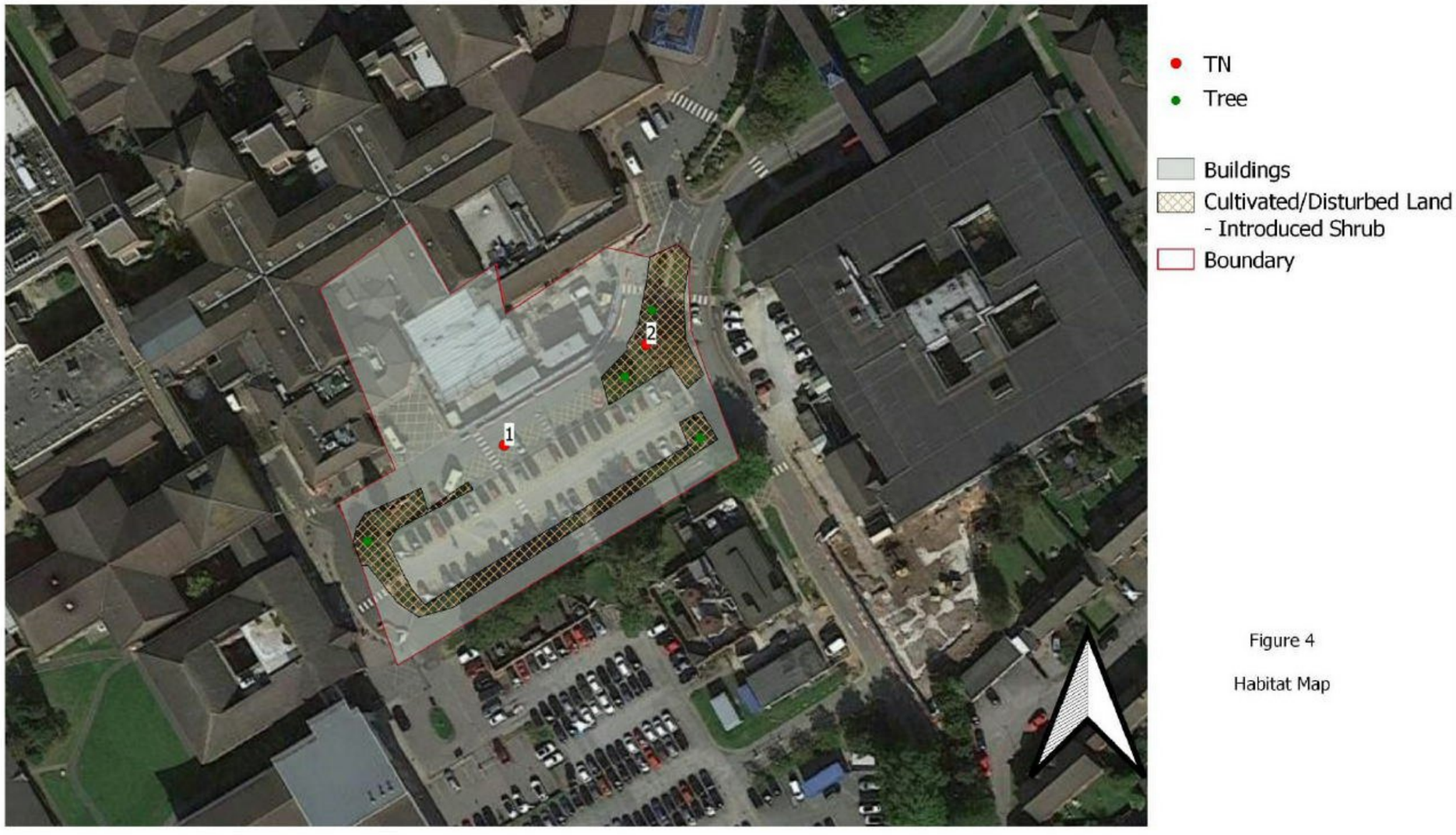


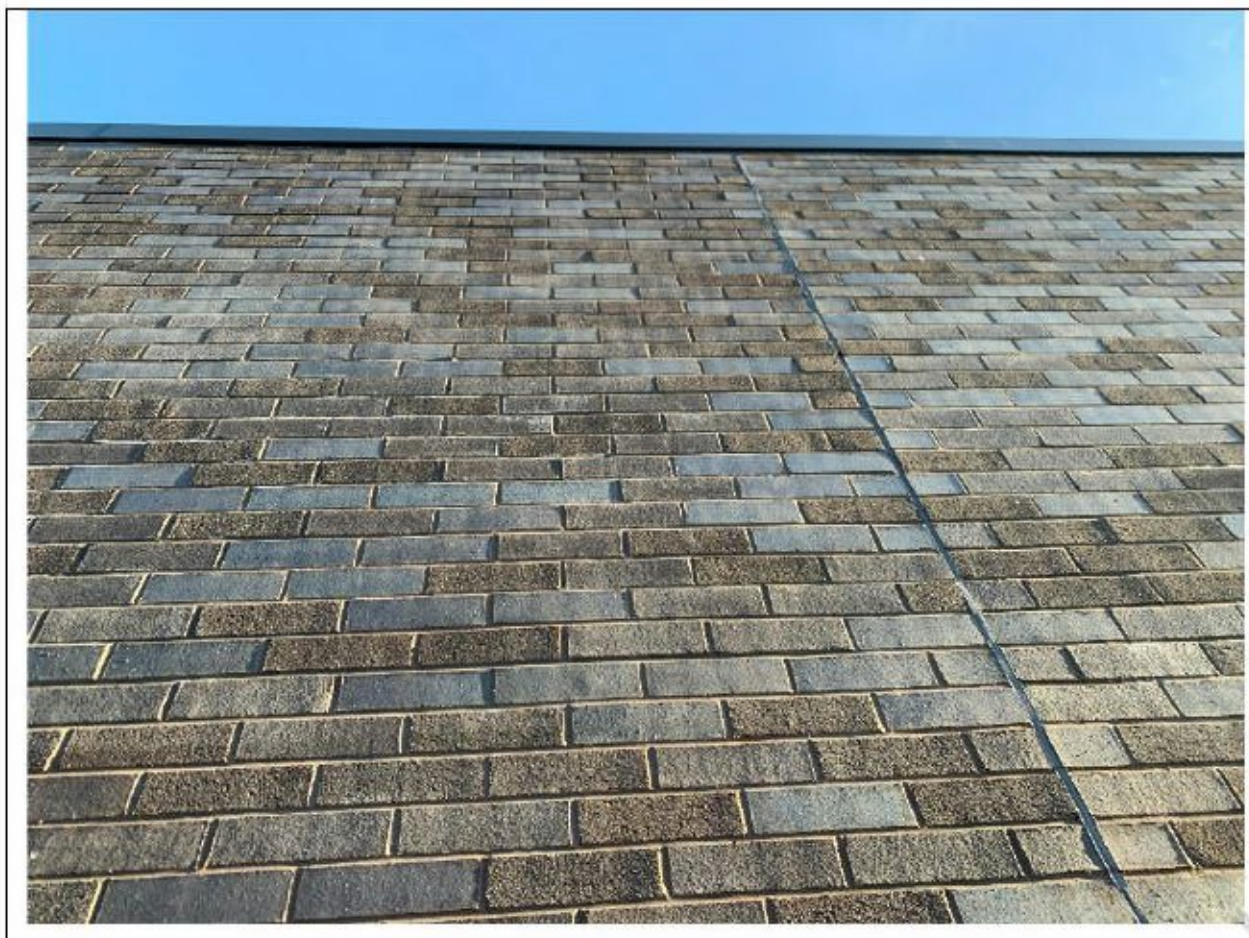
Figure 4

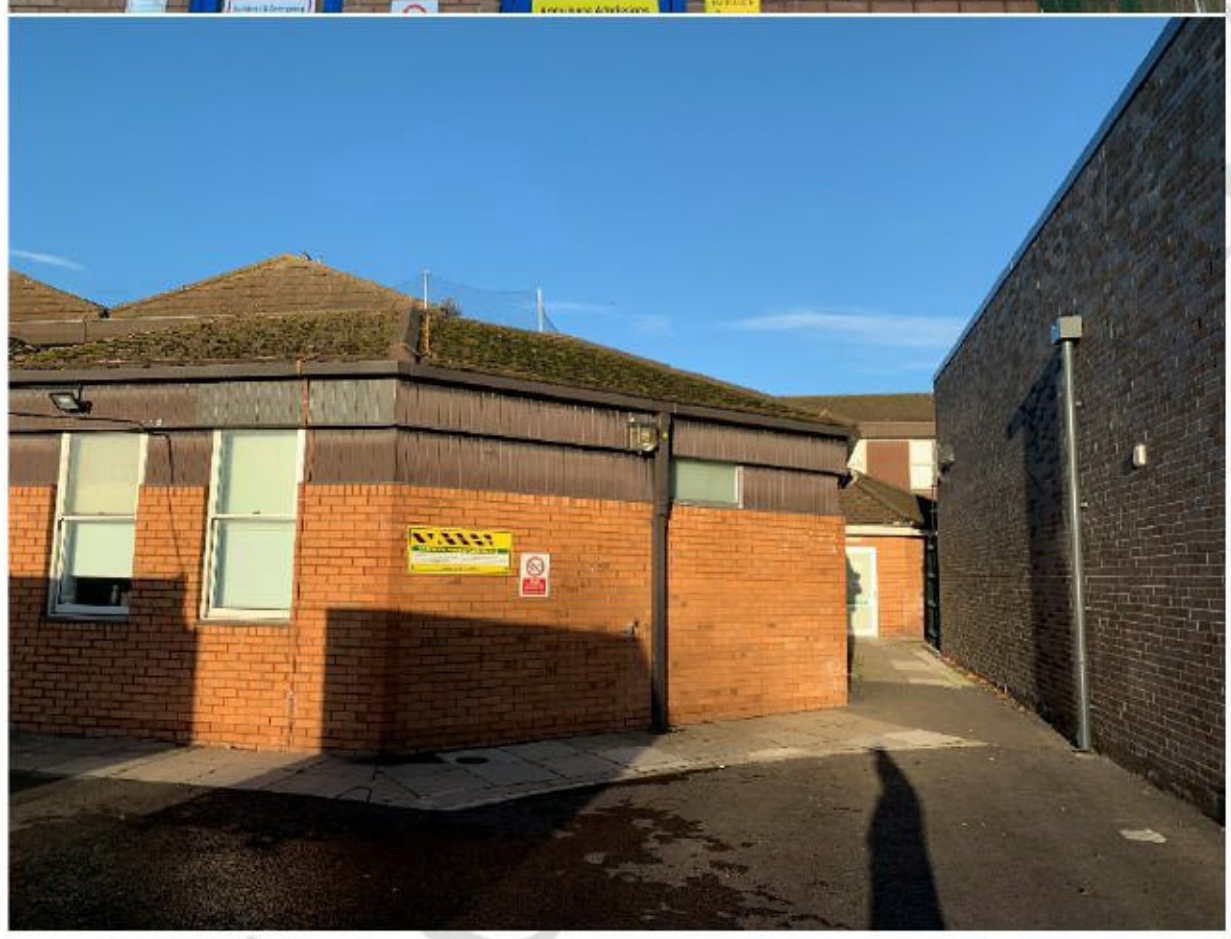
Habitat Map

Target Note	Description	Comment
TN1	Hardstanding and Buildings	The majority of the site comprises hard standing by way of a carpark and buildings. No vegetation is associated with them
TN2	Introduced scrub	The boundaries of the car park comprise small areas of amenity grassland with introduced shrubs. Species include Annual Meadow Grass *(Poa annua)*, Daisy *(Bellis perennis)*, Cherry *(Prunus Sp.)*, Dog Wood *(Cornus alba)* and Cotoneaster *(Cotoneaster simonsiino)*

Table 1 - *Details of Target Notes*

The majority of the site comprises a carpark and road

	Red brick walls to the buildings are well sealed



The roofs and eaves of buildings are well sealed

	
	Small areas of amenity grassland with occasional trees

	Shrubs to the side of the carpark

Figure 5 - *Photographs*

Protected Species

3.9 Due to the scale of development, in accordance with CIEEM guidelines, a data search of the county records centre was not required. The likely presence and impact on protected species could be adequately determined from the level of survey undertaken.

3.10 Protected species surveys were undertaken by Envirotech in 2020. Surveys were undertaken of the walls, roofs, eaves and trees on site. All of the buildings were found to be fully sealed. No trees on site had potential for roosting bats. The site has negligible potential for roosting bats.

3.11 Surveys for nesting birds were undertaken by assessing the amenity planting and buildings for signs of past use. Nests or signs of nests of species such as Swallow *(Hirundo rustica)* can often be found at any time of year. No indications of past nesting were found. The site has limited potential for nesting birds.

3.12 The suitability of the site for reptiles and amphibians was assessed. The site was considered to have negligible potential for use by these species.

4 PROTECTION OF ECOLOGICAL FEATURES

4.1 There are no high quality ecological habitats or features on site.

4.2 The primary vector for transference of nutrient or pollutants across the site onto the surrounding environs is wind. The use of potentially contaminating substances which may be prone to dispersal by wind such as cement would need to be carried out in a sensitive manor with mixing being undertaken in sheltered areas.

4.3 Care should be taken to maintain and protect trees outside the site boundary.

5 ECOLOGICAL ENHANCEMENT

5.1 The site currently has a reduced ecological value. The site is also surrounded by other areas which are of low ecological value and are subject to a large level of disturbance/ interference from human centred activities. As such any attempt to improve the ecological value of the site would be best aimed at those species which are more mobile/less sensitive to disturbance and are also capable of adapting to the urban environment. Enhancing the site for species such as these will counter the significant “edge effect” and disturbance which will occur from outside the site boundaries.

5.2 Advice is being provided by a suitably qualified individual on how to enhance the site and protect the ecology. The Curriculum Vitae of the ecologist instructed is included at the end of this report (Appendix 1)

6 CHANGE OF ECOLOGICAL VALUE OF SITE

6.1 In order to assess the change in the ecological significance of the site the proposed site layout has been used to calculate the likely new areas of each habitat type. The site area will remain the same post development as pre-development.

6.2 A plan of site works is included at Figure 6.

6.3 We have utilised a spreadsheet for calculating the biodiversity value of the site before and after which was developed by the Environment Bank and Warwickshire County Council both of who were involved in the pilot project for biodiversity offsetting. Biodiversity offsetting calculations were undertaken with version WCS_BIA_v.19.0. This was the most current version of the spreadsheet at the time of compilation, Figure 7. This calculation method accords with GN36 BREEAM, CEEQUAL and HQM Ecology Calculation Methodology Route 2.

6.4 Measurements are only approximate at this stage as the final landscaping plan has not yet been produced. This development will result in a gain of 6%

DESIGN PROPOSALS

PREFERRED OPTION

GIFA - SDEC	
Zone	Area
LEVEL 0	
SDEC	1175.4 m²
	1175.4 m²
LEVEL 1	
SDEC	841.9 m²
	841.9 m²
	2017.3 m²

GIFA - Other	
Zone	Area
LEVEL 0	
Link & Infill Extension	276.7 m²
Diagnostics	224.9 m²
	501.7 m²
LEVEL 1	
Bridge Link	94.3 m²
	94.3 m²
	596 m²

NOTES

- Plug-In Diagnostics
- Toilet facilities located outside of main department demise area
- Landscaped courtyard
- Mental health located adjacent courtyard for direct access
- Separated EMU from GPU / SAU
- Reception located on ground floor

Ecological consultants Primary Contact Details

Project Lead: **Andrew Gardner**

Direct Dial: **015395 61894**

7 MANAGEMENT PLAN

In order to obtain BREEAM credits for LE 05 the following points are made/ will be undertaken.

Mandatory Requirements

7.1 A SQE has been appointed prior to the commencement of works.

7.2 All relevant UK and EU legislation relating to the protection of enhancement of ecology will be complied with. Relevant legislation can be accessed via the internet at www.netregs.gov.uk. No EU or UK protected species are believed to use the site.

7.3 The key responsibilities for implementation of the management plan will lie with the contractors, overseen by the site agents. In the Long Term, post development, responsibility for site management will be with the site owners.

Additional Requirements

7.4 The client has requested that site works be timed so as to avoid potentially disturbing activities. Any vegetation to be trimmed or cleared should be checked for nesting birds before it is removed. Ideally this should occur outside the bird nesting period March-September. If vegetation cleared is to occur in the March-September period a check for nesting birds should be conducted first by a suitably qualified individual.

7.5 The contractor will record actions taken to protect biodiversity and monitor their effectiveness throughout key stages of construction. The requirement commits the contractor to make such records available where publicly requested.

7.6 A biodiversity champion will be nominated.

7.7 New planting will potentially support species protected under EU and UK legislation which are also BAP species such as bats.

Site management

7.8 Very little if any site management/ intervention will be required post construction. The scope of the management plan can therefore be limited to maintenance of those areas of the site which have been ecologically improved.

7.9 Care of the newly planted areas should be undertaken in accordance with standard industry practice.

7.10 The soft landscaped areas should be watered sufficiently to allow the roots of drought tolerant plants to establish.

7.11 Care should be taken to ensure the enhanced pond is not polluted with rubbish or chemical runoff.

8 DISCUSSION/ CONCLUSIONS

8.1 From the data and information acquired in undertaking this appraisal it has been possible to present an assessment of the development in question in respect of its pre and post ecological value to assist with a BREEAM 2018 accreditation process for the site.

8.2 The large majority of land on which development has taken place has and will continue to be classified as being of low to negligible ecological value. There are no past or current records relating to species of ecological value either for the site itself or areas immediately adjacent.

8.3 Other than new planting there is little other potential for ecological enhancement at the site.

8.4 The following credits can be achieved for a BREEAM assessment with this document being sufficient evidence.

8.5 **LE01-**

- Where evidence is provided to demonstrate that the footprint of the proposed development largely falls within the boundary of land previously developed.

- Where evidence is provided that site is contaminated.

See point 3.1 and 3.2.

2 credits available, 2 credits scored.

8.6 **LE02-**

- Appointment of an appropriate individual.
- Determine ecological outcomes for the site.

See Section 3.

2 credits available, 2 credits scored.

8.7 **LE03-**

- Planning, liaison, implementation and data
- Managing negative impacts of the project

Roles and responsibilities have been defined. Site preparation and worked have been planned at early project stage. The team will liaise with stakeholders.

There will be no net loss of species at the site using the DEFRA matrics calculator.

3 credits available, 3 credits scored.

8.8 **LE04-**

- Enhancement of Ecology (liaison, implementation and data collection)
- Enhancement of Ecology (change in value of site)
- The recommendations of the Ecology Report for the enhancement of site ecology have been, or will be, implemented in the final design and build.

A professional was appointed for this project and has reviewed the scheme.

It will be possible to increase the biodiversity value of the site by 6% loss.

4 credits available, 3 credits scored.

8.9 LE 05 Long term ecological management and maintenance-

- Management and maintenance throughout the project
- Landscape and Ecology Management Plan, or equivalent, has been developed

2 credits available, 2 credits scored.

Measures have been implemented to manage and maintain ecology throughout the project.

A landscape management plan has been prepared

8.10 **A total of 12 credits can be awarded for this scheme.**

Signed

[redacted]

Andrew Gardner BSc (Hons), MSc, MRICS

Director

Friday, 15 January 2021

APPENDIX 1

Andrew Gardner BSc (Hons), MSc, MRICS, MIEM

Contact Address: The Stables, Back Lane, Hale, Milnthorpe, LA7 7BL

Contact Tel/ Fax: 01539 561894

Ecological Consultant/ Rural Surveyor

Extensive UK and overseas experience in ecological consultancy and land management.

Assistance in the delivery and implementation of rural development projects under European Union grant and bilateral loan agreements under United Nations supervision in Namibia.

Provision of consultancy services within the UK on rural development, agriculture and protected species.

Professional Experience

2004- **Envirotech NW Ltd, Director - Ecology and Rural Development Consultants**

Work includes:-

- Protected species surveys: Bats, Barn Owls, Great Crested Newts, Water Voles, Badgers
- Phase 1 Habitat and River Corridor Surveys (RCS)
- Entry and Higher Level Environmental Stewardship scheme applications
- Agricultural grants, IACS/ Single Farm Payment, diversification schemes
- Agriculture and Land Law
- Negotiation of access and compensation in respect of pipelines and utility companies

1999- 2004 **United Nations Development Programme, Technical Advisor**

Sponsor: 8th European Development Fund and United Nations Development Programme

Work includes:-

- Coordination of new building and renovation on 56 residential and industrial sites
- Support to development of land based SME start-ups in rural areas
- Development of sustainable range management practices in communal areas
- Delivering technical advice to senior members of the Ministry of Agriculture Water and Rural Development on policy and management issues
- Assisting community conservancy groups to manage Black Rhino and Elephant
- Management of funds from International Donor and Government Agencies under supervision from the United Nations

Protected Species Licenses

Natural England protected species licenses are held for

- Bats- Level 2 and Low Impact Class Licence
- Barn owls- all counties
- Badgers- Class Licence
- Great Crested Newts – Level 1
- White clawed crayfish

Professional Affiliation

Full member of the Institution of Environmental Sciences (IES)

Full member of Royal Institution of Chartered Surveys (RICS) (Rural Practice, Valuation and Environmental Faculties)

Member of the Royal Agricultural College

Education

1997-1998 **Royal Agricultural College, Cirencester, England**

MSc Rural Estate Management

Subject areas include: Agriculture, Law, Environmental Management, Planning and Rural Development

Dissertation: "The need for a statutory right to roam in the open countryside"

1995-1997 **University of Hertfordshire, England**

BSc (Hons) Environmental Studies (Conservation and Recreation Management)

Subject areas include: Biological Conservation, Ecology, Biology, Rural Development, Environmental Interpretation, Landscape Evolution and Climatic Change

1993-1995 **Newton Rigg College, England**

Higher National Diploma, Environmental Land Management

Subject areas include: Rural Development, Ecology, Habitat Restoration and Recreation, Management Planning, Protected Areas

References available upon request