Aneurin Bevan University Health Board

Grange University Hospital
Emergency Department Extension

Ecological Assessment

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Issue Status

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Contents

1.0 Introduction

1.1 Background

1.1.1 This Ecological Assessment has been prepared by BDP on behalf of the Aneurin Bevan University Health Board to support a planning application for the expansion of the Emergency Department Waiting Room and Internal Reconfiguration at Grange University Hospital (hereinafter referred to as the "Site").

1.2 Site & Surrounding Area

1.2.1 The site (ref. Figure 1) is located on the eastern edge of the town of Cwmbran entirely within the Grange University Hospital estate. The site is bound by agricultural land to the north, broad-leaved woodland to the east and hospital buildings and associated infrastructure to the south and west. The wider landscape is dominated by the urban landscape of Cwmbran to the west and agricultural land to the north, south and east comprising arable and pastoral land, established hedgerows, broad-leaved woodland and scattered trees.

1.2.2 Please note that while the application red line boundary extends further than that shown in the figure below, to cover the remainder of the hospital's roof, the below reflects the extent of proposed development and has therefore been used as the basis of this assessment.

Figure 1. The GUH Emergency Department Extension site

1.3 Proposed Works

1.3.1 The planning application will seek permission for:

- An extension to the existing ED building, to provide a new entrance, additional waiting space, and patient and staff facilities
- The 47-space car park to the north of the ED access road, and 11-space car park to the south (as existing – retrospective permission sought)
- Solar panels on the roof of the existing ED building
- Landscaping including a biodiverse landscape with seating adjacent to the existing children's play area, and bio-retention to the north of the new building

1.4 Planning

1.4.1 Biodiversity is a material consideration to the planning process and consideration must be given to the protection, retention and improvement, of existing biodiversity features. The proposed expansion of the Emergency Department Waiting Room and Internal Reconfiguration at Grange University Hospital will impact structures and habitats which could potentially support protected species and particular consideration should be given to roosting bats and other protected and notable species which utilise built structures.

1.5 Survey Aims

1.5.1 The survey was commissioned to establish the existing ecological value of the site and advice on the protection and enhancement of site ecology. The aims of the survey were to:

- Describe and map the habitats present on the site
- Assess any potential impact on protected species or sites
- Identify where further surveys may be required
- Provide recommendations for the protection and enhancement of site ecology

2.0 Methodology

2.1 Desk Study

2.1.1 A review of ecological information held by the local records centre, South East Wales Biodiversity Records Centre (SEWBRC), as well as other publically accessible sources online was carried out to identify any protected and notable sites, Habitats and/or species within a 2km radius of the site.

2.1.2 In addition, a review of the local and national planning framework, biodiversity action plans and habitats and species of principal importance was carried out. This included:

National Policy

- Planning Policy Wales, February 2021
- UK Biodiversity Action Plan, 1994
- Habitats and Species of Principal Importance, August 2010

Local Policy

- Torfaen County Borough Council Local Development Plan (to 2021)

2.2 Site Survey

2.2.1 An ecological site walkover was undertaken to JNCC standards (Phase 1 Habitat Survey – a technique for environmental audit, JNCC, Revised 2016). Habitats were mapped during the site survey and each habitat was assigned a Phase 1 category. A Phase 1 map was produced showing the habitat types and their boundaries. This report details each habitat category located within the designated site boundary. See Appendix A for the Phase 1 Habitat map.

2.2.2 A site walkover was undertaken on the 31 January 2023 in sub-optimal conditions for survey, however, due to the types of habitats present it was deemed that an accurate assessment of the site could be made. Botanical nomenclature follows Stace (2019).

2.2.3 The survey was carried out by Anthony Nickson. Anthony is experienced in Phase 1 Habitat and protected species work (he holds a Natural Resource Wales bat licence) and is also a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

2.2.4 Evidence of, and/or potential for the presence of protected species was recorded during the survey. Based on the desktop study and habitat types present on the site, particular attention was paid to the following species:

Bats

2.2.5 All British bat species and their roosts are protected under European Law (The Conservation of Habitats and Species Regulations 2017) and UK Law (Wildlife and Countryside Act 1981, as amended). As such it is an offence to undertake the following acts:

- Deliberately capture, injure or kill bats
- Damage or destroy a breeding or resting place
- Obstruct access to their resting or sheltering places
- Intentionally or recklessly disturb a bat while it's in a structure or place of shelter or protection

2.2.6 As the proposals for the site focus primarily on the existing buildings and trees, particular attention was given to bats.

Habitat Suitability

2.2.7 Initially, a review of publically accessible online mapping systems was undertaken to assess the habitats present on site and in the surrounding area. The review assessed the suitability of the habitats to support and provide connectivity for commuting and foraging bats.

Table 1. Guidelines for assessing the potential suitability of proposed development sites for bats based on the presence of habitat features within the landscape

Suitability	**Commuting and foraging habitats**
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Preliminary Roost Assessment

2.2.8 In addition, a preliminary roost assessment of the applicable building area and trees to be impacted by the proposals was undertaken. An external inspection of the A&E department and the 5 no. young trees was undertaken to search for, and to assess the potential for, a bat roost to be present.

2.2.9 External searches included, for example, looking for gaps between any soffit boards and walls, gaps between window frames and the walls, and looking for bat droppings on the walls and window ledges. Following the external survey, an internal survey of accessible loft spaces was also carried out to search for evidence of a bat roost. This included looking for the following signs:

- live or dead bats
- bat droppings
- bat entry/exit points
- bat urine staining
- grease marks on any timbers
- feeding remains such as insect wings
- areas clear of cobwebs

2.2.10 The external inspections of the trees involved a visual examination of each tree from the ground using close-focusing binoculars to search the trunk and the canopy for potential roosting features (PRFs). A high-powered torch was used to inspect cavities or shaded areas of the tree. Feature of trees commonly used by bats for roosting and shelter, and field signs that may indicate use of trees by bats, were also recorded. Potential roosting features that may be used by bats include:

- woodpecker holes;
- rot holes;
- hazard beams;
- other vertical or horizontal cracks and splits (such as frost cracks)in stems or branches;
- partially detached platey bark;
- knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar;
- man-made holes (e.g. cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
- cankers (caused by localised bark death) in which cavities have developed;
- other hollows or cavities, including butt-rots;
- double-leaders forming compression forks with included bark and potential cavities;
- gaps between overlapping stems or branches;
- partially detached ivy with stem diameters in excess of 50mm.

2.2.11 The building and trees were then assessed in accordance with the guidelines for assessing the potential suitability of proposed development sites for bats (BCT, 2016).

Table 2. Guidelines for assessing the potential suitability of proposed development sites for bats based on the presence of suitable roosting features within a structure

Suitability	**Commuting and foraging habitats**
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

2.2.12 A pair of close focussing binoculars, a high-powered torch and an endoscope were used (where required) to search for evidence of bats, externally and internally.

Great Crested Newt

2.2.13 Great Crested Newts (GCN) (*Triturus cristatus*) are protected under European Law (The Conservation of Habitats and Species Regulations 2017) and UK Law (Wildlife and Countryside Act 1981, as amended). As such, it is an offence to deliberately or recklessly undertake the following acts:

- Capturing, killing, disturbing or injuring GCN deliberately
- Damaging or destroying a breeding or resting place
- Obstructing access to their resting or sheltering places (deliberately or by not taking enough care)

Otter

2.2.14 Otters (*Lutra lutra*), are protected under European Law (The Conservation of Habitats and Species Regulations 2017) and UK Law (Wildlife and Countryside Act 1981, as amended). As such it is an offence to undertake the following acts:

- Deliberately capture, injure or kill an otter
- Damage, destroy or obstruct an its breeding or resting places
- Disturb an otter in its breeding or resting places

Water Vole

2.2.15 Water voles (*Arvicola amphibius*), are protected under UK Law (Wildlife and Countryside Act 1981, as amended). As such it is an offence to undertake the following acts:

- Intentionally kill, injure or take (capture) a water vole
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb water voles while they are using such a place

Badger

2.2.16 Badger (*Meles meles*) and their setts are protected under UK Law (Wildlife and Countryside Act, 1981 as amended, and the Protection of Badgers Act 1992). As such, it is an offence to harm badgers or disturb or damage their setts.

2.2.17 The site walkover involved searching for evidence of badger activity. This included sett holes, dung pits, latrines, snuffle holes, tracks, hair, prints, and scratch marks.

Common Reptiles

2.2.18 All British reptiles are protected under UK Law (Wildlife and Countryside Act 1981, as amended). The common species (adder, common lizard, grass snake and slow worm) are protected from intentional killing and injuring.

Birds

2.2.19 All birds, their nests and eggs are protected at the nest under UK Law (Wildlife and Countryside Act 1981, as amended). As such it is an offence to intentionally undertake the following acts:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built
- Take or destroy the egg of any wild bird
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

3.0 Results

3.1 Desktop Study

3.1.1 The SEWBRC provided the following ecological information for the site and a 2km radius:

- Statutory and non-statutory sites
- Protected and other notable species

3.1.2 The full list of protected and notable species identified from the data search was analysed, and the relevant issues have been detailed below. It should be noted that although the information provided by the local record centre is based on current records, it does not represent an exhaustive list of all records.

International/National Protected Sites

3.1.3 The desktop study confirmed that there are no European or National statutory designation within a 2km radius of the site.

Local Nature Reserves

3.1.4 The desktop study confirmed that there are no Local Nature Reserves within a 2km radius of the site.

Wildlife Sites / Sites of Importance for Nature Conservation

3.1.5 The desktop study confirmed that there are no Wildlife Sites / Sites of Importance for Nature Conservation (SINC) within the site. There are, however, 16 Wildlife Sites / SINCs within a 2km of the site, as follows:

- Llanfrechfa Grange, approximately 125m south of the site.
- Ty Llwyd Wood, approximately 140m south-east of the site.
- County Hall, approximately 330m north-west of the site.
- Cwm Heron Wood, approximately 370m north-east of the site.
- Llanyravon Farm, Cwmbran approximately, 900m south-west of the site.
- Land at Edgehill, Llanfrechfa, Cwmbran, approximately 940m south of the site.
- Llantarnam Grasslands - the Alders, approximately 1075m south-west of the site.
- Llantarnam Grasslands, approximately 1180m south-west of the site.
- Llantarnam Road / Court Road, Cwmbran, approximately 1275m south-west of the site.
- Coed Llwyd Wood, approximately 1410m north of the site.
- Cefn Tilla Meadow, approximately 1445m north-east of the site.
- White House Meadows, approximately 1580m north-east of the site.
- Llantarnam Wetland, approximately 1600m south-west of the site.
- Llantarnam Abbey Bat Roost, approximately 1650m south of the site.
- Rose Cottage, approximately 1750m south of the site.
- Coed Tre-Herbert, approximately 1735m north of the site.

Protected Species

3.1.6 The following results are of protected species recorded within a 2km radius of the site:

Bats

3.1.7 The local record centre provided 140 bat records within a 2km radius of the site. A summary of the results is provided in Table 3.

Table 3. Summary of SEWBRC's bat records

Species	Roost Records	Other Records	Closest Record
Bat (*Chiroptera*)	12	3	The closest record is a roost record from Selby Close, Llanfrechfa approximately 488m south-west of the site boundary.
Serotine (*Eptesicus serotinus*)	2	1	The closest record is an indeterminate roost at from Monmouth House (Cwmbran), approximately 1695m north-west of the site.
Mouse eared bat (*Myotis* spp.)	0	5	The closest record is a static bat detector record from Former County Hall (Cwmbran), approximately 477m north-west of the site boundary.
Daubenton's bat (*Myotis daubentonii*)	2	5	The closest record is a static bat detector record from Former County Hall (Cwmbran), approximately 625m north-west of the site boundary. The closest roost record is a potential roost at Llanfrechfa Way road bridge (Llanyrafon), approximately 1119m south-west of the site boundary.
Whiskered bat (*Myotis mystacinus*)	2	2	The closest record is a roost record from the Former County Hall, approximately 607m north-west of the site boundary. An adult female whiskered bat was found in the corridor of the fourth Floor, assumed to be a roost.
Whiskered/Brandt's bat (*Myotis mystacinus/brandtii*)	0	2	The closest record is a bat detector (time expansion) from Llanyrafon Farm, approximately 982m south-west of the site boundary. The bats were recorded foraging in woodland & scrub behind main building.
Natterer's bat (*Myotis nattereri*)	0	5	The closest record is a static bat detector record from Former County Hall (Cwmbran), approximately 477m north-west of the site boundary.
Noctule bat (*Nyctalus noctula*)	0	13	The closest record is a bat detector record from Llanfrechfa Grange, Caerleon Road, approximately 402m south of the site boundary.
Pipistrelle bat species (*Pipistrellus* spp.)	2	7	The closest record is a roost record from Grange University Hospital from 2009. The six figure grid reference provided is approximately 425m south-west of the site boundary.
Common Pipistrelle (*Pipistrellus pipistrellus*)	15	19	The closest record is a static bat detector record from Former County Hall (Cwmbran), approximately 474m north-west of the site boundary. The closest record is a roost record from the Former County Hall, approximately 607m north-west of the site boundary. A juvenile common pipistrelle bat found in the corridor of the fifth floor, assumed to be a roost.

Pipistrelle bat (*Pipistrellus pipistrellus sensu lato*)	0	4	The closest record is a bat detector record from Llanfrechfa Grange, Caerleon Road, approximately 402m south of the site boundary.
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	2	22	The closest record is a static bat detector record from Former County Hall (Cwmbran), approximately 474m north-west of the site boundary. The closest roost record is a day roost at Cefn Tila Farm, Llandegveth, approximately 1704m north-east of the site boundary.
Brown Long-eared bat (*Plecotus auritus*)	5	9	The closest record is a large roost record from Grange University Hospital from 2009. The six figure grid reference provided is approximately 425m south-west of the site boundary.
Greater Horseshoe bat (*Rhinolophus ferrumequinum*)	1	0	The night roost record is from Cefn Tila Farm, Llandegveth, approximately 1704m north-east of the site boundary.
Lesser Horseshoe Bat (*Rhinolophus hipposideros*)	8	5	The closest record is An indeterminate roost from Llanyravon Farm, approximately 887m south-west of the site boundary.

3.1.8 A suite of bat surveys commissioned for a proposed development to the south of the Grange University Hospital site approximately 400m south of the site identified a lesser horseshoe bat day roost in a single storey disused building. Activity surveys also identified Brandts, Natterer's, noctule, common pipistrelle, soprano pipistrelle, brown long-eared and lesser horseshoe active to the south of the site.

Great Crested Newt

3.1.9 The local record centre did not provide any GCN records within the 2km search area.

Otter

3.1.10 The local record centre provided eight otter records. The closest record is from the Afon Llwydd, approximately 827m north-west of the site boundary.

Badger

3.1.11 The local record centre provided badger records within the wider landscape. The exact locations of the records are confidential.

Grass Snake

3.1.12 The local record centre provided one grass snake (*Natrix helvetica*) record from Llantarnum, approximately 1699m south-west of the site boundary.

Slow Worm

3.1.13 The local record centre provided two slow worm (*Anguis fragilis*) records. The closest is from Cwmbran, approximately 1800m from Llantarnum, approximately 1699m north-west of the site boundary.

Birds

3.1.14 The local record centre provided numerous bird records for the 2km search area including species which nest in habitats within and adjacent to the site boundary, including dunnock (*Prunella modularis*), house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), swallow (*Hirundo rustica*) and swift (*Apus apus*).

3.2 Site Survey

Habitat Description

3.2.1 The site comprises improved grassland, introduced shrub, scattered trees, buildings and hardstanding. Please see Appendix A for Phase 1 Habitat map.

Improved grassland

3.2.2 The improved grassland (ref. plate 1) to the north and east of the site is a legacy of the sites former agricultural use. Beyond the hospital boundary the fields are grazed by sheep. The improved grassland within the site surrounds the hospitals helipad and is managed through a regular mowing regime to create a tight sward with low diversity. The species identified included red fescue (*Festuca rubra*), creeping buttercup (*Ranunculus repens*), clover (*Trifolium* spp.) and yarrow (*Achillea millefolium*).

Introduced shrub

3.2.3 There are two introduced shrub beds (ref. plates 2-5) within the car park. The plants comprised box honeysuckle (*Lonicera nitida*), butcher's broom (*Ruscus aculeatus*), Japanese skimmia (*Skimmia japonica*), lavendar (*Lavandula* sp.), mint (*Mentha* sp.), Oregon grape (*Mahonia* sp.) and viburnum (*Viburnum* sp.) as well as ornamental grasses.

Scattered trees

3.2.4 To the eastern boundary of the site there were five recently planted oak (*Quercus* sp.) whips (ref. plate 6).

Buildings

3.2.5 The Grange University Hospital is a modern hospital opened in November 2020. The emergency department (ref. plates 7-15) which will be impacted by the proposals comprises a metal clad single storey flat roof entrance behind which the hospital consists a multi-level metal clad building.

Hardstanding

3.2.6 The hardstanding within the site comprises pathways, roads, and car park (ref. plate 16). There is also a helipad adjacent to the site (ref. plate 17).

3.2.7 The 47-space car park (retrospective permission sought) to the north of the site appears from historic satellite images to have been constructed entirely on bare ground or improved grassland similar to the habitat described above.

Protected Species

Bats

Roosting opportunities

3.2.8 Throughout the year, all British bat species (notably pipistrelle bats which have been recorded within the wider hospital site) use buildings or trees to roost, they favour areas that tend to be dark, sheltered and undisturbed.

3.2.9 The metal clad building is well sealed and no opportunities for bats to roost and/or access the building were identified during the site survey. The emergency department is a particularly busy area of the hospital open 24/7 and well lit. The emergency department lighting is likely to further reduce the likelihood of bat activity in this area.

3.2.10 The five recently planted oak whips adjacent to the site do not support any roosting features for bats.

Foraging and/or Commuting opportunities

3.2.11 The habitats within the site provide negligible value for foraging and/or commuting bats.

3.2.12 The broad-leaved woodland (ref. plates 18-19) bordering the Sirhowy Brook to the east of the site boundary is a valuable corridor for foraging and/or commuting bats with strong connectivity to the wider landscape.

Great Crested Newt

3.2.13 The building, hardstanding and intensively managed grassland habitats within the site are unsuitable for GCN.

3.2.14 As part of the new hospital development an attenuation pond (ref. plates 20-21) was constructed to the north of the Sirhowy Brook fed by a surface water drain to the north of the pond. The pond approximately 30m east of the site boundary is approximately 20m long by 10m wide and less than 0.2m deep. The pond is dominated by common reed (*Phragmites australis*) with willow (*Salix* sp.) and soft rush (*Juncus effuses*) also present and provides minimal egg laying vegetation for GCN. The attenuation pond likely dries in the spring/early summer.

3.2.15 The pond is 3 years old and there are no suitable GCN ponds within 250m of the attenuation pond from which GCN could migrate into the attenuation pond. Furthermore, the local record centre did not provide any GCN records within the 2km search area.

3.2.16 The survey information suggest that GCN are not present within the adjacent attenuation pond and therefore no longer considered within this report.

Riparian Mammals

3.2.17 An initial habitat assessment for water vole and otter was undertaken along the section of the Sirhowy Brook located to the east of the site boundary.

3.2.18 The water channel (ref. plates 22-24) along the brook was approximately 0.5-1.0m wide and a depth of water of approximately 0.2m during the walkover. The brook banks were shallow. The water channel contained deposits of mud/silt and no aquatic plant species appeared to have established in the channel.

3.2.19 The brook is located within the tree belt which lacked suitable marginal vegetation necessary for water vole to take refuge and to forage. No burrows typical of water vole were identified along the brook and the water levels were unfavourable for this species.

3.2.20 The brook is unsuitable for otter.

3.2.21 The scoping assessment suggests otter and water vole are not present within the section of Sirhowy Brook located to the east of the site boundary.

Badger

3.2.22 The improved grassland provides foraging habitat for badger and the embankment to the east of the site would be suitable for sett construction, however, no evidence of badger activity was identified within the site or a 30m radius of the site.

3.2.23 The survey information suggest that badger is not present within/adjacent to the site and therefore no longer considered within this report.

Common Reptiles

3.2.24 The building, hardstanding and intensively managed grassland habitats within the site are unsuitable for common reptile.

3.2.25 The attenuation pond and ranker habitats within and surrounding it and woodland corridor provide habitat for common reptiles.

3.2.26 The closest reptile record provided is a grass snake record from Llantarnum, approximately 1699m south-west of the site boundary. All of the reptile records are separated from the site by major barriers including the A4042, a two-lane dual carriageway.

3.2.27 The survey information suggest that common reptiles are not present within the site and therefore no longer considered within this report.

Birds

3.2.28 The buildings and introduced shrub within the site provide low suitability for nesting birds and the broad-leaved woodland habitat provides high suitability for nesting birds during the nesting season (March to September).

4.0 Evaluation

4.1 Desktop Study

International/National Protected Sites

4.1.1 The desktop study confirmed that there are no European or National statutory designation within a 2km radius of the site.

Local Nature Reserves

4.1.2 The desktop study confirmed that there are no local nature reserves within a 2km radius of the site.

Wildlife Sites / Sites of Importance for Nature Conservation

4.1.3 The desktop study confirmed that there were no Wildlife Sites / SINCs within the site. There are, however, 16 locally protected sites within 2km of the site, the closest is Llanfrechfa Grange, approximately 125m south of the site.

4.1.4 The habitats present (improved grassland, introduced shrub, scattered trees, buildings and hardstanding) within the Site are of low value to the Wildlife Sites / SINCs in the wider landscape. Subject to an appropriate Construction Environmental Management Plan (CEMP) the proposals will have a negligible impact on the qualifying features of any of the locally protected sites and no further assessment of the impacts of the project on the designated sites is required.

4.2 Site Survey

Habitats

4.2.1 The Phase 1 Habitats present on the site are common throughout the UK. No nationally rare or locally rare plant species were located during the extended Phase 1 Habitat Survey (Preston et al, 2002).

Protected Species

Bats

4.2.2 The preliminary roost assessment suggests the building and trees within the site have negligible suitability to support a bat roost(s). The proposed direct impacts to the existing building and felling of the five recently planted whips is considered to have a negligible impact on the local bat population subject to a sensitive lighting scheme being implemented during the construction and operational phases of the development to protect the existing foraging and commuting corridor to the east of the site.

Birds

4.2.3 The buildings and introduced shrub within the site provide low suitability for nesting birds. The loss of these habitats would have a negligible impact on the local bird populations. Notwithstanding this, all birds, their active nests and eggs are protected at the nest under UK Law (ref. paragraph 2.2.19) and active nests must not be impacted by the proposed development.

5.0 Recommendations

Bats

5.1.1 No evidence or suitability for a bat roost was recorded within the buildings and five recently planted whips within the site during the site survey on the 31 January 2023. The survey information suggests that the existing buildings and trees do not currently support roosting bats.

5.1.2 It is the author's opinion that the proposed work to the existing building and felling of the five recently planted whips should proceed as the survey information suggests there should be no significant concerns or constraints in relation to roosting bats in the proposals and there is no requirement for an EPS licence in respect of bats.

Birds

5.1.3 All bird species are protected at their nest under the Wildlife and Countryside Act 1981. Due to the existing building and introduced shrub having low suitability for nesting birds and the broad-leaved woodland having high suitability for nesting birds, it is recommended that site works that will impact any of these habitats (siting of construction cabins, removal of introduced shrub, initial works to the external building) takes place outside the peak bird breeding season (March to September).

5.1.4 If site works to these habitats are to be undertaken within the nesting season, then an appropriately qualified ecologist will be required to undertake a site walkover to visually assess potential suitable nesting habitat for active nests. If active nests are discovered, then site works must cease until the nest is deemed inactive or a strict precautionary working method statement (PWMS) is provided to progress the works near an active nest.

Site Enabling Precautionary Measures

5.1.5 A Construction Environmental Management Plan (CEMP) should be produced prior to the commencement of construction works onsite which will demonstrate how the construction stage of the project will progress without any impacts to retained ecological receptors within and adjacent to the site.

5.1.6 Serious damage is often caused during enabling works. For this reason, enabling works should be avoided until protective fencing has been erected around the site to avoid any damage to the adjacent habitats.

5.1.7 In the unlikely event that any protected fauna are found during development, then all works must cease immediately and advice sought from a suitably qualified ecologist.

External Lighting

5.1.8 The impact of light to biodiversity within the site, and in particular bats and flying invertebrates should be mitigated through the implementation of a sensitive lighting strategy.

5.1.9 The eastern boundary of the site is considered to be the vulnerable to light pollution as the broad-leaved woodland provides foraging and commuting habitat for the local bat populations. There should be no lighting specified towards the eastern boundary. All lighting should use downward directed lighting with a tightly controlled distribution to limit unwanted backwards spill to minimise the impact of light spill.

5.1.10 As numerous flying insects are attracted to ultra violet light the external lighting should use LED lighting sources which are UV filtered to limit the amount of UV light produced, this will minimise the attraction to insect from adjacent habitats and feeding areas and minimise unnatural behaviour stimulated by the lighting.

Report Validity

5.1.11 This report is valid until February 2025.

6.0 References

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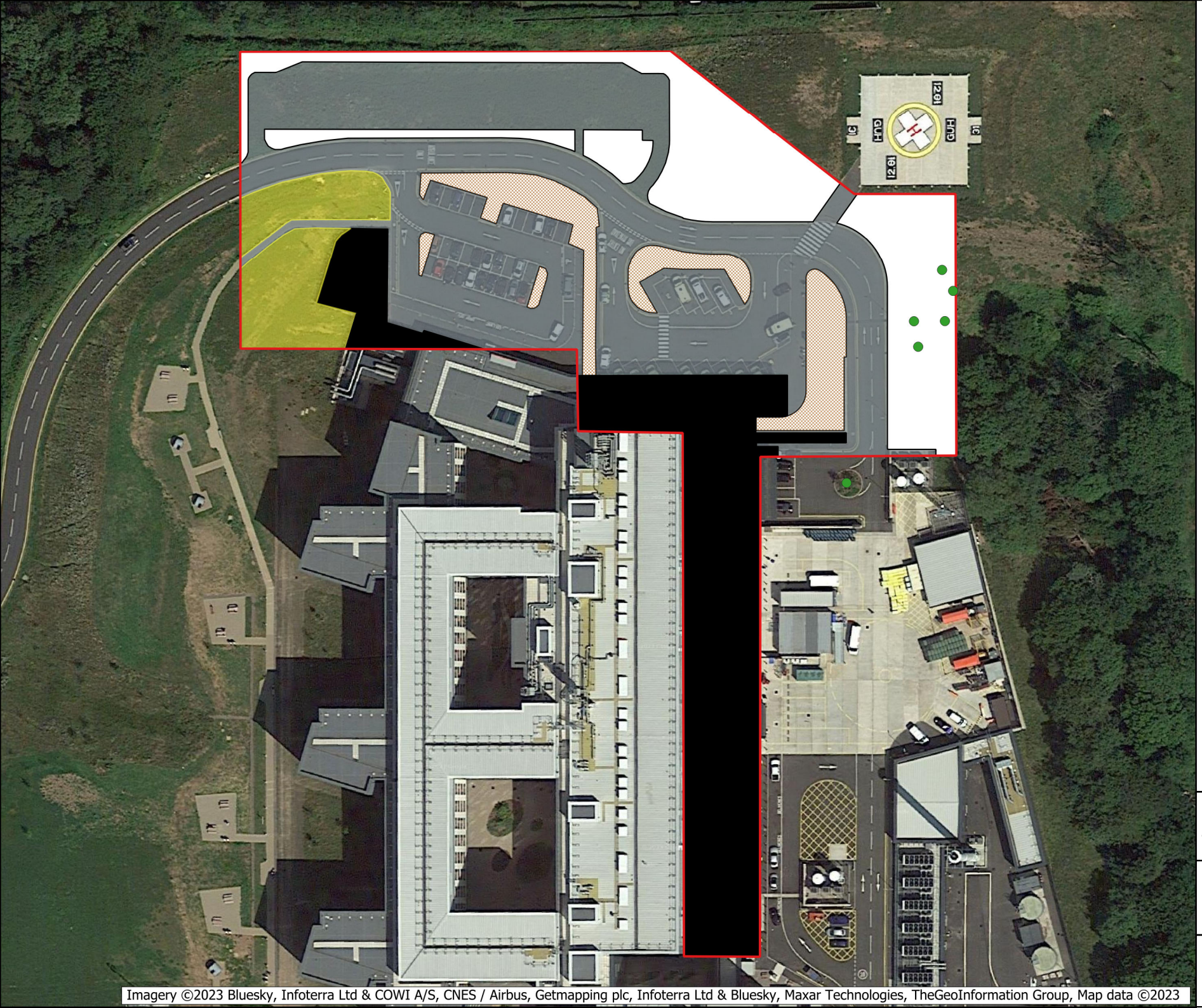
New Flora of the British Isles, 4th Edition, Stace, February 2019

Appendix A - Phase 1 Habitat Map



Project:
Grange ED Expansion

Drawing Title:
Phase 1 habitat map

Date:
26/05/2023

Revision:
01

Appendix B - Ecological Data Search

Aderyn

LERC Wales' Biodiversity Information & Reporting Database

Customer Reference: Grange University Hospital [PUBLIC]

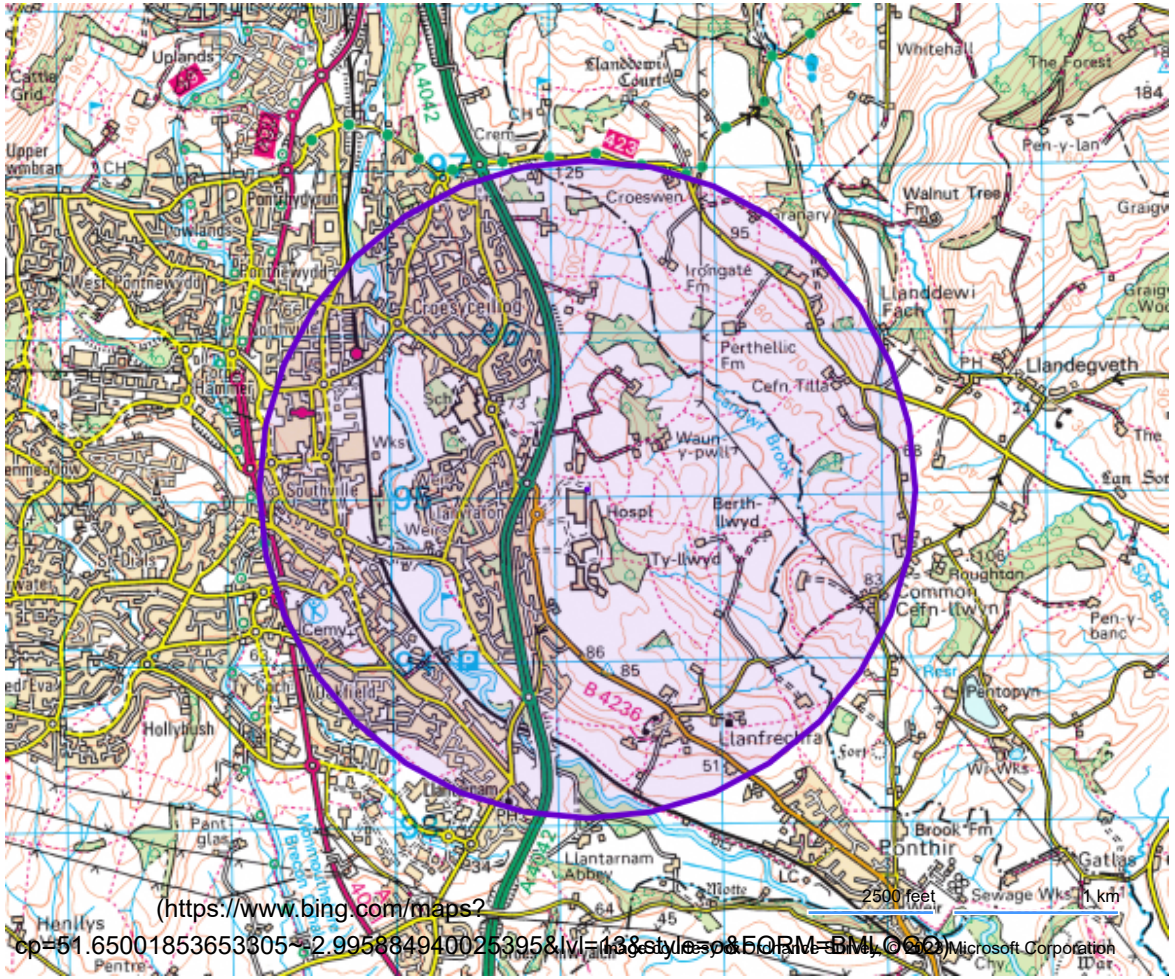
LERC Reference: 0223-752

Date: 05-Jan-2023 17:04

Search Results Summary

Package C: Priority Species 2km Search for relevant species, designated sites and Phase I habitats within 2km of your location(s)

Species Records	**1387**
Pri. Species	699
Cons. Concern	344
Loc. Important	139
Species Status	**205**
Invasive Non-Native	205
Species Status	**205**
Sites	7
Habitats	12



Appendix C - Photograph Plate

Plate 1. Improved grassland

Plate 2. Introduced shrub

Plate 3. Introduced shrub

Plate 4. Introduced shrub

Plate 5. Introduced shrub

Plate 6. Five recently planted oak

Plate 7. Emergency department

Plate 8. Emergency department

Plate 9. Emergency department

Plate 10. Emergency department

Plate 11. Emergency department

Plate 12. Emergency department

Plate 13. Emergency department

Plate 14. Emergency department

Plate 15. Emergency department

Plate 16. Tarmac car / ambulance parking

Plate 17. Helipad

Plate 18. Broad-leaved woodland

Plate 19. Broad-leaved woodland

Plate 20. Attenuation pond

Plate 21. Attenuation pond

Plate 22. Sirhowy Brook

Plate 23. Sirhowy Brook

Plate 24. Sirhowy Brook