

HAWKESWOOD ECOLOGY

Specialists in Ecological Survey and Assessment

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PRELIMINARY ECOLOGICAL APPRAISAL AND PRELIMINARY BAT ROOST ASSESSMENT, LAND AT MEADOW ROAD, NEATH

ON BEHALF OF

JONES BROTHERS AND TAI TARIAN LTD

April 2021

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All habitat and protected species surveys present a ‘snapshot’ of conditions existing and species present, or considered having potential to be present, at the time of survey. Many species are mobile and distributions can vary across time. Results and findings presented in this report should be considered with these factors in mind.

Protected species surveys are recognised as having a ‘shelf life’ of two years maximum. Surveys older than this are unlikely to be accepted by a Local Planning Authority or Natural Resources Wales as viable documentation.

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SUMMARY

Hawkeswood Ecology was instructed to carry out a Preliminary Ecological Appraisal on land at Meadow Road, Neath. The Site was originally surveyed by Hawkeswood Ecology in 2005 with follow up survey undertaken in 2012 and 2019. The current survey updates these findings and relates to altered Site boundaries. It is proposed to develop the Site for residential purposes.

The Site consists largely of agriculturally improved grassland, mature trees and broad leaved woodland. Access is planned through gardens to properties on Meadow Road at the north east of the Site. The Site sits on the boundary of the urban conurbation of Melyn, Neath, with open countryside to the east. The Eaglesbush Valley Local Nature Reserve (LNR) lies along the northern boundary of the Site and this must be a consideration within the development planning.

The development Site supports no significant botanical interest and the open field is currently horse grazed with a short sward height. The broad leaved woodland is on steep rocky slopes which have largely prevented under grazing, it is heavily disturbed by tipped rubbish from the neighbouring properties.

An assessment of the Site with regard to protected species noted that there is potential for breeding birds in trees and shrubs on Site, however the large grazed area is unsuitable for breeding birds due to the intense nature of its use. There was no evidence of badgers on the Site and it is considered unsuitable for reptiles given the heavy grazing pressure on Site; the presence of small numbers of animals cannot be ruled out however and recommendations are made in the report in relation to this. Of main concern is the potential use of the Site by bats, both in terms of using the trees for roosting purposes and use of the Site by animals for foraging and commuting purposes. A bat roost is known from buildings to the south of the Site.

The proposed development will impact mainly upon agriculturally improved grassland of low species diversity and a buffer zone at the boundary with Eaglesbush Valley LNR will give suitable protection to this locally important site.

Further survey to address potential ecological impacts upon bats are ongoing and the initial activity survey results are briefly discussed here, Tree climbing roost inspections of potentially affected trees are to be carried out over the winter period.

It is considered that there are no apparent overriding ecological reasons that would prevent the proposal proceeding, however, the results of the tree bat roost assessment and any appropriate mitigation or compensation will need to be finalised prior to planning determination.

Preliminary Ecological Appraisal/Tree Bat Roost Assessment, Land at Meadow Road,
Neath.
Hawkeswood Ecology – April 2021

1 INTRODUCTION

- 1.1 Hawkeswood Ecology was instructed by Jones Brothers and Tai Tarian Ltd to carry out a Preliminary Ecological Appraisal (PEA) and Preliminary Bat Roost Assessment (PRA) on land at Meadow Road, in Eaglesbush Valley, Neath (approximate central Grid Reference SS 750 961). It is proposed to develop the Site for residential purposes with an access formed off Meadow Road.
- 1.2 The majority of the Site has previously been surveyed by Hawkeswood Ecology in 2005 and 2019, the current proposals consider different Site boundaries with buildings to the south excluded from the application area.
- 1.3 The Site lies on the boundary of established residential developments in southern Neath near the Melyn with the north eastern boundary adjacent to Eaglesbush Valley Local Nature Reserve (LNR). It is dominated by agriculturally improved grassland, broad-leaved woodland and mature trees.
- 1.4 The objectives of the survey are:
 - To ascertain the habitats and species present within the Site;
 - To assess the ecological and nature conservation value of the Site;
 - To carry out a Preliminary Roost Assessment of trees on Site;
 - To assess the potential ecological impacts of the proposed works;
 - To provide recommendations to mitigate the proposed works.
- 1.5 The PEA and PRA was carried out on 9th September 2020.
- 1.6 In addition, bat activity surveys were recommended by Hawkeswood Ecology following the initial Site visit and these are currently being undertaken. The first visit was made to Site on 9th September 2020. The outcomes of this visit are also considered within this report to inform potential scheme constraints.

2 SURVEYOR EXPERIENCE

- 2.1 The surveyor and report author is Eric Hawkeswood. Eric has many years experience of broad habitat and detailed botanical and species surveying. He has extensive experience of protected species survey and holds Natural Resources Wales and Natural England scientific and conservation licenses for bats and dormice. He has been a professional in the nature conservation field for thirty one years formerly working as Reserves Manager and Conservation Officer at Gwent Wildlife Trust and Woodland Manager for the Ruperra Conservation Trust. Eric has worked as an Ecological Consultant as joint proprietor of Hawkeswood Ecology since 2001.

3 METHODOLOGY AND CONSTRAINTS

Desktop Study

- 3.1 The South East Wales Biodiversity Records Centre (SEWBRc) was asked to provide records of Protected and Priority Species from a 2 kilometre radius of the Site. Records for Other Species of Conservation of Conservation Concern and locally important species were requested from a 500 metre radius. Information on Internationally designated sites was sought from a radius of 2 kilometres and nationally and locally designated sites sought from a radius of 500 metres.
- 3.2 Earlier surveys carried out on the Site and in the local area by Hawkeswood Ecology were also re-visited to assess any significant change in habitats or potential for protected species.

Preliminary Ecological Appraisal

- 3.3 The Preliminary Ecological Appraisal (PEA) was carried out in line with the guidance issued by The Chartered Institute for Ecology and Environmental Management (2013) and consisted of a walk-over survey of the proposed Site taking into account features within and adjacent to it. Habitats were categorised according to the Phase 1 Habitat Survey guidelines (JNCC, 2010) and annotated onto a map (Figure 1). Plant assemblages were described using the DAFOR scale of cover abundance (Appendix 1) and each habitat was recorded using Target notes (Appendix 2); a species list of plants identified during survey is given in Appendix 3 and photographs are given in Appendix 4.
- 3.4 In addition, the Site was assessed for its potential to support protected species.

Preliminary Roost Assessment

- 3.5 A visual inspection was carried out from the ground using binoculars. The use of ladders was limited but assisted along with the use of an endoscope where safe and feasible. The inspection looked for features on the trees that could be used by bats for roosting and shelter.
- 3.6 The approximate location of each tree/group of trees assessed is shown in Figure 2 and the surveyor noted species, presence of ivy, whether there were cavities, holes or other suitable crevices for bats to roost within, or whether there was any dead wood which may indicate some level of roosting opportunity and attributed an appropriate risk category. The trees are referred to in this document by the numbers associated with them in the previously undertaken arboricultural Survey where possible (no tree tags were on the trees and no map available). The bat potential categories are presented in Table 1 below.

Table 1: Risk Assessment features for bat-roost potential during tree inspection (After *Bat Surveys for Professional Ecologists- Good Practice Guidelines* –Bat Conservation Trust 2016):

Suitability	Roosting	Commuting/Foraging Habitats
Negligible potential	No features likely to be used by roosting bats.	Negligible habitat Features likely to be used by commuting or foraging bats.
Low	Trees with no obvious PRF's to support bats although the size and age may result in limited features that may support bats or only limited features noted in inspection	Suitable habitat but isolated, may be used by small numbers of bats; i.e. isolated tree, small patch of scrub.
Medium	A Tree with one or more PRF's 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.	Habitat connected to the wider landscape such as trees, water, grassland or scrub.
High	A tree with one or more PRF's 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 size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat connected to the wider landscape likely to be used regularly by commuting and foraging bats. A site near to known roosts.

Notes: PRF's - Potential Roost Features

- 3.7 Evidence such as bat droppings (faeces) was looked for in holes where possible and at the base of the trees, and any holes also examined for urine or fur staining typically found at the access points.
- 3.8 The daytime inspection was carried out with the aid of close focusing binoculars, endoscope, ladders and a 1,000,000 candlepower spot lamp.

Constraints

- 3.9 The survey was carried out late in the season when some vernal species may no longer be observable. However, given the habitat types present on Site it was considered that an accurate reflection of their value could be assessed.

- 3.10 The PRA was a ground based investigation only (with limited use of ladders). This is considered in the findings and recommendations of the report.

Bat activity survey

- 3.11 In addition bat activity surveys are currently being undertaken and the results of the first survey are briefly discussed here as it is considered they will help inform the scheme layout proposals and assist in determination of the application. A report with the full methodology described will be released on completion. The survey essentially consists of the use of transect survey and passive detectors placed at three location around the Site.
- 3.12 The surveys were undertaken in accordance with the Bat Conservation Trust Good Practice Guidelines, '*Bat Surveys for Professional Ecologists- Good Practice Guidelines*' 2016. The passive detectors were left on Site for five nights, 9th September to 13th September 2020.

4 DESKTOP STUDY FINDINGS

- 4.1 SEWBrEC reported a total of 143 bat records from the 2 kilometre search area with a known roost in the building complex to the immediate west of the Site reported from 2013; we understand survey in 2019 has found that bats still use the buildings for roosting purposes. Species recorded around the Site include common and soprano pipistrelle, noctule and unspecified *Myotis* species bats, considered most likely to be Natterer's bats by the observer. Unidentified bats are reported from a property approximately 150 metres to the south of the Site and from distances of approximately 330 and 430 metres to the east (in Eaglesbush Valley LNR) noctule, Daubenton's, common and soprano pipistrelle and brown long-eared bats are reported.
- 4.2 Of the other bat records the majority relate to common and soprano pipistrelle, pipistrelle species bats and noctule bats with records coming from distances of over 490 metres from the Site. Of interest is a lesser horseshoe record dating from 2012 from approximately 800 metres to the south west of the Site. Other species reported were Natterer's and brown long-eared bats. Records come from across the search area but are generally concentrated around areas of habitation. Lesser horseshoe bats were also reported from a known site over 3 kilometres to the west of the Site.
- 4.3 The legal status of the bats recorded is given in Table 2 below:

Table 2: Legal Status of bat species reported

Common Name		Scientific Name	Status
Bats		Chiroptera	EPS, WCA5, S7, LBAP (ANG, DEN, FLI, RCT, SNP, TRA, TRF)
Brown Long-eared		Plecotus auritus	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF, VOG)
Common Pipistrelle		Pipistrellus pipistrellus	EPS, HDir, WCA5, S7, Bonn, Bern, LBAP (ANG, BBNP, CER, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, TRA, TRF, VOG)
Daubenton's		Myotis daubentonii	EPS, HDir, WCA5, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF)
Lesser horseshoe		Rhinolophus hipposideros	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, BBNP, CLY, CON, CRM, DEN, FLI, GWY, MON, PEM, POW, SNP, TRA, TRF, VOG, WRE)
Natterer's		Myotis Nattereri	EPS, HDir, WCA5, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF)
Noctule Bat		Nyctalus noctula	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF, VOG)
Pipistrelle Bat species		Pipistrellus	EPS, WCA5, LBAP (ANG, DEN, FLI, SNP, TRA, TRF)
Soprano Pipistrelle		Pipistrellus pygmaeus	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, BBNP, CLY, DEN, FLI, GWY, PEM, POW, SNP, TRA, TRF, VOG)
Unidentified Bat		Myotis	EPS, HDir, WCA5, Bonn, Bern, LBAP (ANG, DEN, FLI, SNP, TRA, TRF)

- 4.4 A total of 178 records of Protected and Priority Species excluding bats are reported from the search area. Most interesting is a record of a dead water vole found from the Site in 2016. It is assumed that this is incorrectly grid referenced as the description of where the animal was found does not relate to habitats present on the Site and there are no obviously suitable habitats within the immediate locality. A large number of records relate to wading and estuarine birds recorded on the Afon Nedd and saltmarsh approximately 500 metres to the west at their nearest approach and are species unlikely to be found on Site.
- 4.5 Species that could occur include a number of bird species, invertebrates, herpetofauna and mammals. Birds considered relevant to the habitats present on Site include house nesting birds such as house sparrow and starling. Other species that could occur on or near the Site include dunnoek, redpoll, linnet, bullfinch, song thrush, redwing and fieldfare. Ring ouzel has been reported in passage historically and the Site supports habitats that this species could use on passage, however unlikely given its current decline.
- 4.6 A small number of invertebrates are reported. Those that may occur on Site are very limited; White spotted sable (a moth) has been recorded in 2014 approximately 220 metres from the Site. The only herpetofauna records relate to a single smooth newt reported from a back garden approximately 170 metres to the south and records of slow-worm from approximately 300 and 380 metres to the west and east of the Site respectively.
- 4.7 Mammal records are of otter, hedgehog and the water vole record referred to in Paragraph 4.4. Otter records are mainly from the Afon Nedd and associated saltmarsh, but there is a record from Eaglesbush Valley on the Cryddan Brook approximately 370 metres south of the Site and also a record from the Cryddan Cryddan Brook outflow to the Nedd near Milland Road suggesting travel along the brook is possible. Records of hedgehogs are widespread across the search area.

4.8 With regard to flowering plants, only bluebell is reported with records from over 600 metres from Site.

4.9 Table 3 below shows the status of Protected and Priority Species considered relevant to the Site.

Table 3: Status of Relevant Priority and Protected Species

Common Name	Scientific Name	Status
Bluebell	<i>Hyacinthoides non-scripta</i>	WCA8, LBAP (ANG, CLY, CON, FLI, SNP, TRA, TRF)
Bullfinch	<i>Pyrrhula pyrrhula</i>	S7, UKBAP, WBR(RSPB), LBAP (BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, TRF, VOG), UKBR(RSPB)
Common Frog	<i>Rana temporaria</i>	HDir, WCA5, Bern, LBAP (ANG, CLY, CON, FLI, POW, TRA)
Dunnock	<i>Prunella modularis</i>	S7, UKBAP, Bern, LBAP (CON, POW, VOG), UKBAm(RSPB)
European Otter	<i>Lutra lutra</i>	EPS, HDir, WCA5, S7, UKBAP, Bern, CITES, RD1 (UK), RD2 (UK), LBAP (ANG, BBNP, CER, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, TRA, TRF, VOG, WRE)
Fieldfare	<i>Turdus pilaris</i>	BDir22, WCA1.1, LBAP (CON, POW), WBAm(RSPB), UKBR(RSPB), UKBAm(RSPB)
House Sparrow	<i>Passer domesticus</i>	S7, UKBAP, Bern, LBAP (CLY, CON, FLI, GWY, VOG), WBAm(RSPB), UKBR(RSPB)
Lesser redpoll	<i>Acanthis cabaret</i>	S7, UKBAP, WBR(RSPB), LBAP (CON), LBAP (DEN, POW, VOG), UKBAm(RSPB)
Linnet	<i>Linaria cannabina</i>	S7, Bern, WBR(RSPB), LBAP (ANG, BBNP, CER, CLY, DEN, FLI, PEM, VOG), LBAP (CON, GWY), UKBR(RSPB)
Redwing	<i>Turdus iliacus</i>	BDir22, WCA1.1, LBAP (CON, POW), WBAm(RSPB), UKBR(RSPB), UKBAm(RSPB)
Slow-worm	<i>Anguis fragilis</i>	WCA5, S7, UKBAP, Bern, LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, VOG)
Smooth newt	<i>Lissotriton vulgaris</i>	WCA5, Bern, LBAP (CLY, CON, DEN, FLI, POW, TRA), LI(BIS)
Song Thrush	<i>Turdus philomelos</i>	BDir22, S7, UKBAP, Bern, LBAP (ANG, BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, POW, SNP, TRF, VOG, WRE), WBAm(RSPB), UKBR(RSPB)
Starling	<i>Sturnus vulgaris</i>	BDir22, S7, UKBAP, Bern, WBR(RSPB), LBAP (BBNP, CON, FLI, GWY, VOG), UKBR(RSPB)
Water vole	<i>Arvicola amphibius</i>	WCA5, S7, UKBAP, LBAP (ANG, BBNP, CER, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, TRA, TRF, VoG)
West European Hedgehog	<i>Erinaceus europaeus</i>	S7, UKBAP, Bern, LBAP (ANG, BGW, BRG, CON, FLI, GWY, NEW, POW, RCT, VOG)
White-spotted Sable	<i>Anania funebris</i>	S7, UKBAP, RD2 (UK)

4.10 Eighty five Other Species of Conservation Concern are reported of which three records are local to the Site reported as part of the RSPB Big Garden Birdwatch in 2009. The species reported were long tailed tit, coal tit and green woodpecker, all of which could occur on site. The next nearest records are over 370 metres distant and relate mainly to the Afon Nedd and associated saltmarshes with a limited number of records (9) relating to Eaglesbush Valley. Species that could occur on or over the site were limited with house martin, swallow, and goldcrest the only species likely to utilise the Site for breeding or foraging purposes.

4.11 Twenty eight Species of Local Conservation Concern are reported none of which are particularly relevant to the Site.

4.12 No internationally or nationally important sites are reported in the search buffer. Eaglesbush Valley Local Nature Reserve lies immediately adjacent to the Site and the

following Sites of Importance for Nature Conservation (SINC's) are reported from the Site itself or locally:

- Ancient Semi Natural Woodland
- Garth Mor
- Neath Canal
- NPT Watercourses
- The Waun, Cimla

- 4.13 A watercourse SINC is shown on Site running along the lowest point towards Eaglesbush Valley LNR, however this no longer exists on the ground; the woodland on Site has also been identified as a SINC. Both of these SINC's are only identified as generic SINC's under Neath Port Talbots SINC programme with no site specific description. The SINC map provided by SEWBReC is given in Appendix 5.
- 4.14 Habitats identified from the Site (See Appendix 6) include improved grassland, planted woodland and scrub. The stream is not identified on the habitat map.
- 4.15 SEWBReC data is confidential and cannot be released in to the public domain without prior permission in writing from SEWBReC. Hawkeswood Ecology holds the data on the client's behalf for one year (in accordance with conditions) in case of further query. SEWBReC have given this data search a unique reference number, 0190-545, which should be quoted in any communications with them.
- 4.16 MAGIC shows the nearest Special Area of Conservation (SAC) is Crymlyn Bog some 4.5 kilometres to the west. This SAC is separated from the Site by the Afon Nedd and morphological features and would not be impacted by any development. The nearest Site of Special Scientific Interest lies approximately 2.5 kilometres south west and is not connected to the Site in any way.
- 4.17 An assessment of the Ancient Woodland Inventory shows the broad-leaved woodland on Site to be classified as 'restored ancient woodland'. Woodland in the adjacent Eaglesbush Valley LNR is classified as 'ancient semi-natural woodland'.
- 4.18 Earlier surveys carried out by Hawkeswood Ecology covering the majority of the present application Site consisted of a habitat assessment in 2005 and 2019. Those surveys found the Site to be dominated by agriculturally improved grassland, mature trees with woodland in the same ownership directly bordering the proposed development area.
- 4.19 Pipistrelle bats have been identified roosting in buildings to the south of the Site in 2013 and 2019.

5 FIELD SURVEY FINDINGS

- 5.1 The Site is dominated by a large field which is heavily horse grazed with a number of mature trees mainly sited on the boundaries. Access will be via gardens and land adjacent to properties on Meadow Road which are largely a mix of managed lawns and bramble scrub. There is also a woodland block on steep slopes on the north west of the Site which is contiguous with woodland in Eaglesbush Valley Local Nature Reserve (LNR). See Figure 1, Phase 1 map and Appendix 4 for photographs.

Grassland

- 5.2 The field at Target Note 1 takes the form of a 'dry' valley with a watercourse that ran through it now culverted in a storm pipe. It is damp at the eastern end towards the Eaglesbush Valley LNR boundary but there is no significant change in species composition. It is dominated by agriculturally improved grassland with perennial ryegrass, crested dog's tail, Yorkshire fog and common bent all abundant or locally abundant. It is horse grazed with a resultant short sward.
- 5.3 There is a small abandoned quarry which has been infilled in the field and bramble and bracken are present in this area.

Mature trees

- 5.4 There are a number of individual or groups of mature trees present on Site. There is a row of mature trees along the lane at the south eastern boundary with sycamore and ash present and groups of trees including horse chestnut and sycamore near the western boundary. An old collapsing oak tree is in the field at Target Note 3. The trees and groups of trees are discussed in detail in Table 3.

Woodland

- 5.5 The broad-leaved woodland at Target Note 4 is dominated by a fairly closed canopy of common oak, sycamore and beech with occasional Scot's pine; elm is also rarely present. The shrub and ground layers are poorly developed and subject to some grazing pressures. Shrub species are mainly occasionally occurring holly, hawthorn and beech with oak, beech and sycamore saplings present in the ground flora. The ground flora itself is dominated by abundant ivy with frequent to locally abundant bramble; other species present include occasional wood speedwell, broad buckler fern and herb Robert. Bluebell stems were visible and suggest a frequent presence, red campion is locally frequent. It is disturbed particularly at the rear of the properties of Meadow Road where considerable rubbish tipping has taken place. The woodland is contiguous with the woodland in the adjacent Eaglesbush Valley LNR.

Amenity

- 5.6 Access to the Site is proposed off Meadow Road through gardens between two properties (Target Note 5). The area is a mix of maintained garden, i.e. formally mown lawns, bramble scrub with some woody scrub including sycamore, privet and buddleia and hard-standing.

Other habitats

- 5.7 The Site is bounded to the south east by a partially collapsed stone wall (TN 6) which has been subject to some repairs. Ivy and maidenhair spleenwort occur frequently on this structure. There is a boundary of bramble scrub on the woodland edge which is more developed along its western boundary where some trees have fallen opening up the canopy.
- 5.8 Eaglesbush Valley LNR (TN7) lies immediately adjacent to the eastern boundary of the Site. This was viewed from the Site boundary only. The woodland in this area appears to support a canopy dominated by common oak, beech and ash with a shrub layer of hazel. The ground flora was dominated by bramble. A pond was visible in the lower part of the woodland coinciding with the area the outfall from a storm pipe is likely to be located.

Preliminary Tree Roost Assessment

- 5.9 The Provisional Roost Assessment (PRA) was undertaken in good weather conditions on 9th September 2020.
- 5.10 Table 2 below gives the findings of trees assessed. From a total of 19 individual or groups of trees assessed one tree was considered to be of high potential and three as medium – high potential for supporting bats roosts. A further seven were considered to be of medium potential. The remainder were considered to be of low potential mainly due to age even where no obvious PRF's were found. The approximate location of the trees are plotted in Figure 2.
- 5.11 In the ash that were assessed, *Chalara*, ash dieback, was evident and advanced in number 12, a group of four ash. Tree 13, on the north eastern boundary, showed signs of advanced decay and disease but was a tree showing a number of PRF's and is considered to be of high risk. The oak (tree 11) showed retrenchment and loss of major limbs, possibly resulting from a lightning strike. Although there were PRF's apparent, the remaining growth was generally solid.
- 5.12 Recommendations for further survey are made in Section 9, Recommendations, and briefly described in Table 2.

Table 3: Assessment of Bat Roost Potential in Trees on Site:

Tree no	Species	Ivy*	Cavities - Dead Wood	Approx height (m)	Bat presence / Recommendations	Roost potential
1	Sycamore	N	No visible cavities, dead wood limited to smaller branches	20	Mature tree is good condition	Low
2	Sycamore	N	Some shallow cavities, deadwood in crown.	20	Large mature tree, evidence of dead wood in crown. If affected by development further survey required.	Medium
3	Sycamore	N	Nothing apparent	20	Double stem leaders from approximately 2 metres. Considered medium potential due to size, climbing survey recommended.	Medium
4/5	Sycamore	N	Nothing apparent	20	Mature trees with no obvious features. Considered medium potential due to size, climbing survey recommended.	Medium
6/7	Sycamore	M/D	Inspection limited due to ivy, no obvious cavities, dead wood in smaller branches.	20	Mature trees with no PRF's visible but medium to dense ivy cover. Considered medium risk due to ivy cover, climbing inspection recommended.	Medium
8	Sycamore	N	Dead wood limited to small branches, wounds where branches have fallen, some flaking bark.	18	Mature tree with no obvious opportunities but flaking bark and shallow cavities, if felled to be left for 24 hours before cutting up.	Low
9	Sycamore	N	Nothing apparent, some flaking bark.	18	Flaking bark, no other visible PRF's, if felled leave for 24 hours before cutting up.	Low
10	Sycamore	L/M	Shallow cavities and dead wood in smaller branches	25	Large mature tree, single stem to 3 metres. Considered medium potential due to size, climbing survey recommended.	Medium

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11	Common oak	N	Large amounts of dead wood and cavities (most appear shallow)	15	Very large mature oak in advanced retrenchment, stems collapsing and many broken off, possible lightening damage. Climbing or observation survey (depending upon safety issues) recommended.	Medium/high
12	Ash x4	L/D	No obvious cavities, lots of dead wood in crown.	To 18	All trees showing signs of severe ash dieback. All multi-stemmed from approx. 1 metre, probably previously flailed, further survey recommended.	Medium
13	Ash	M/D	Cracks in stem, dieback	20	Sited on boundary fence against Eaglesbush valley, a large tree with twin leaders from 1 metre, in poor condition with apparent cavities, further survey recommended if management proposed.	High
14	Beech x 2	M/D	Cavities and dead wood apparent	20	Two mature trees on the edge of the woodland, one with dense ivy. Both showing dieback in the crown and in poor condition with cavities apparent in the ivy free tree. Considered medium-high potential, climbing survey recommended.	Medium/high
15	Sycamore	N	In fair condition but some flaking bark	18	Mature tree, two stems from approx. 3 metres, if felled leave 24 hours before cutting up	Low
16	Horse chestnut	N	Flaking bark, rot in base but no large cavity obvious, no dead wood	20	Mature tree, no obvious cavity despite dead wood, if felled, leave for 24 hours before cutting up	Low
17	Horse chestnut x 5	N	Deadwood and trunk fluked, no obvious cavities.	To 25	Group of mature horse chestnuts with one smaller specimen. No obvious cavities visible from ground but trees have heavily fluked trunks, climbing survey recommended.	Medium

Preliminary Ecological Appraisal/Tree Bat Roost Assessment, Land at Meadow Road, Neath.
Hawkeswood Ecology – April 2021

18	Ash	N	Dead wood, dying tree, no obvious cavities	25	Ash with severe dieback and dying. No obvious cavities, bifurc trunk from approx. 2m. if felled leave for 24 hours before cutting up, inspect prior to felling.	Low/medium
19	Horse chestnut x 5	N	Flaking bark, one tree (tagged 197) showing significant split in main stem, another (no tag found) with large cavity in bole. All have PRF's, tag no 198 multiple PRF's.	To 20	All mature trees of varying growth and size, all show PRF's, climbing surveys recommended.	Medium/high

PRF = Potential Roost Feature

*Ivy cover: N = none

L = light cover

M = medium cover

D = dense cover

Evidence and Potential for roosting Bats following PRA

- 5.13 The PRA found no direct evidence of bats using the trees but a number supported Potential Roost Features (PRF's). Further survey is recommended to ascertain if bats are using any of the trees for roosting purposes should any felling or management works be proposed.

Bat Activity Survey

- 5.14 The first of three bat activity surveys was undertaken in September 2020. The transect survey undertaken on the 9th September identified common and soprano pipistrelle and brown long-eared bats. Key activity areas were the row of mature trees bounding the Site to the south adjacent to the private lane, where the brown long-eared bat was recorded, and the wooded boundaries to the north and west. Pipistrelle species were noted flying into the Site from the Eaglesbush House complex. Activity in the open area of the field was limited throughout the transect and largely related to the area around the oak tree (tree number 3) and row of mature trees along the private lane.
- 5.15 Initial analysis from the passive detectors show common pipistrelle, soprano pipistrelle, whiskered and brown long-eared bats using the site (locations shown in Figure 2). The detectors were located in three positions on Site, one in trees near the Eaglesbush House complex boundary, one on the boundary of Eaglesbush Valley Local Nature Reserve (LNR) and one on the boundary of the wooded area within the red line boundary.
- 5.16 The machine located on the boundary of Eaglesbush Valley LNR (Location 1) recorded mainly common and soprano pipistrelle and whiskered bats with occasional noctule passes. That at Location 2, in the woodland edge within the application Site, recorded the least activity over the period with mainly whiskered bats and regularly occurring common and soprano pipistrelle bats. Results from the machine located near the Eaglesbush House complex (Location 3) recorded mainly common and whiskered bats with occasional passes from soprano pipistrelle bats.

Summary

- 5.17 The Site is dominated by agriculturally improved pasture with mature trees and broad-leaved woodland. Its main value lies in the mature trees and woodland present on Site.
- 5.18 In terms of protected species, some of the trees on Site appear to have high potential for roosting bats. It has limited value for breeding and foraging birds but is likely to support decent numbers of locally occurring common species.

Fauna

- 5.19 Faunal species observed during the survey were limited to birds with a number of common species noted either from the Site, mainly in the woodland at TN 5, or on adjacent land. These included blackbird, chaffinch, crow, goldfinch, great spotted woodpecker, house sparrow, long tailed tit, robin, dunnoek and wren.
- 5.20 There was no evidence of badgers using the Site and the nature of the woodland areas was very rocky ground with rock outcrops. It would appear to be unsuitable for sett building and no obvious paths were noted that could be attributed to badger passage. The Site did not support a mosaic of habitats suitable for reptile populations and their presence is not expected although small numbers

cannot be ruled out in areas where disturbance or shade is not a factor. Their presence would not be expected given the nature of the current Site management. There was no evidence of use of the Site by badgers although they are known from Eaglesbush Valley LNR.

- 5.21 The Site does not offer suitable habitat for protected species other than birds and bats. Otters are unlikely to utilise the Site given a lack of suitable habitat but could utilise the adjacent woodland in Eaglesbush Valley and the potential for protected species in this adjacent area is considered in Section 9, Recommendations. The Site does not support suitable habitat for great crested newt, dormouse or water vole.

Ongoing survey

- 5.22 A climbing Bat Roost Assessment is currently being instructed to accurately assess the mature trees for the presence of roosting bats. Activity surveys are currently being undertaken with the initial survey undertaken in September 2020 and further survey in 2021. Initial results indicate wide use of the Site by pipistrelle species and whiskered bats with occasional nodule passes and rarely occurring brown long-eared bat passes and this is likely to be re-enforced by the later surveys and is in line with the data search findings. The presence of whiskered and brown long-eared bats demonstrate the presence of species limited by artificial light spill and the need for proper compensation in the lighting scheme for the Site.

6 ECOSYSTEM RESILIENCE

- 6.1 Under the Environment (Wales) Act 2016 Local Planning Authorities (LPA's) and other public bodies must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. LPA's are directed to consider the resilience of ecosystems early in the planning process to aid assessment of the impacts of any proposed development upon biodiversity.
- 6.2 The premise for Ecosystem Resilience is laid out in Section 4 of The State of Natural Resources Report, a 2018 document produced by Natural Resources Wales (NRW) on behalf of the Welsh Government. It lays out a framework for assessing ecosystem resilience. However, despite the duty placed on LPA's, there is no currently agreed format for this assessment.
- 6.3 Section 4 names five attributes that NRW consider 'building blocks' of ecosystem resilience, these are:
- Diversity
 - Extent
 - Condition
 - Connectivity
 - Adaptability
- 6.4 These factors are considered below, although none of them are considered 'stand alone' and all interrelate to some extent. It is also important to note that it is the responsibility of the LPA to assess Ecosystem Resilience and that any Site based report is not able to make judgements on a

wider scale. It should also be acknowledged that there is as yet no agreed format to undertake such an assessment.

Diversity

- 6.5 The habitats on Site can be placed into two distinct areas, the agriculturally improved field with mature trees and the broad-leaved woodland, there is also a small area of amenity where the proposed access will be constructed through existing gardens off Meadow Road. The woodland and trees are the main areas with potential for biodiversity in terms of attracting protected species such as birds and bats although both birds and bats will forage out into the grazed field. The woodland area is poorly managed with a closed canopy but connects to the adjacent Eaglesbush Valley Local Nature Reserve and will also prove attractive to foraging bats and birds. Its value is somewhat affected by the tipping of rubbish from adjacent properties which has impacted on the ground flora, particularly near the housing boundary.
- 6.6 It is considered overall that habitat diversity on Site is medium with the proposed construction zone itself of low value. Retention of the woodland areas and mature trees plus appropriate landscaping within the development have the potential to increase diversity on Site in relation to common species, impacts from the development will need to be properly mitigated to allow the potential benefits to be gained.
- 6.7 The adjacent habitats at Eaglesbush Valley LNR (TN8) along with the woodland on Site (TN4) offer more diverse habitats and form part of the Site connectivity to the wider countryside. Eaglesbush Valley LNR is considered to be naturally diverse and having a good maintenance of variation of habitat throughout its length. It performs an important function for wildlife as a green corridor allowing transport of animals and plants across a wide area but also supports habitats with use for protected species, badgers and otter for example are identified from this area and it offers suitable habitat for foraging and roosting bats. Eaglesbush Valley LNR is a receptor for drainage from the Site and currently a storm drain takes water into it. This must be a consideration in any proposals to develop the Site.
- 6.8 The woodland at TN5 is not managed and is at least partially under grazed although the nature of the terrain limits this to a large extent. It does support mature trees and forms a continuous link to the adjacent LNR. It is damaged by apparently regular dumping of rubbish from adjacent properties.

Extent

- 6.9 The whole Site is approximately 2.00Ha, including the woodland which is approximately 0.4Ha. It has development of varying density on three sides but is open to Eaglesbush Valley LNR to the east giving connection to the wider landscape; the principal development zone is around 1.3 to 1.5Ha. Its relatively small size is mitigated to some extent by this connectivity but the poor habitat quality means the proposed construction zone is unlikely to support a wide diversity of species.

Condition

- 6.10 The Site is not in good condition for biodiversity. The grassland is managed by horse grazing and can be considered typical of many urban pastures. The woodland and trees receive no management attention and can best be considered to be in a 'stressed condition' with significant rubbish tipping

into the woodland area. A lack of any form of management has and will continue to lead to a Site limited in biodiversity.

Connectivity

- 6.11 The Site is directly adjacent to the Eaglesbush Valley LNR and this has the potential to allow immigration of both plant and animal species. It also enjoys wooded connectivity to open countryside to the south of the Site. The heavy urban development to the immediate north and west limits connectivity in that direction although some of the adjacent gardens are mature and passage of birds and bats through the Site to them is likely to occur. The Site connectivity to the wider landscape is limited to woodland and this is likely to discourage immigration by some animals, reptile species for example.
- 6.12 For species such as bats, the woodland and mature tree within it offer foraging and commuting routes to and from the wider countryside areas described above.

Adaptability

- 6.13 NRW comments that:
‘Adaptability differs from the other attributes because it is part of the definition of resilience rather than an attribute that supports it. However, its inclusion in the Environment (Wales) Act is important because it emphasises one of the most important features of resilience: dynamism and the ability to adapt to change.’
- 6.14 NRW also comments that *‘Adaptability cannot yet be quantified in an equivalent way to the other attributes and so we have not used it in the assessment of resilience in this State of Natural Resources Review’*. As such this cannot be considered in this report.

7 DISCUSSION AND IMPACT ASSESSMENT

- 7.1 The Site consists of an agriculturally improved horse grazed field which contains a number of mature trees, broad-leaved woodland and garden areas of varying management. The construction zone is limited to the grazed field with access through the gardens off Meadow Road to the north. These habitats are not of particular importance although the mature trees are located at the grazed field boundaries and may support protected species, particularly bats and breeding birds. It is also adjacent to the Eaglesbush Valley LNR.
- 7.2 The data search also shows a SINC identified across the Site as a generic NPT ‘Watercourses’ SINC, however, this feature does not exist on the ground and the earlier survey of 2005 identified this as now being a storm drain running into the LNR. We would suggest therefore that there is no watercourse SINC now identified within the development Site boundary. The woodland is identified as a SINC by Neath Port Talbot as a generic woodland SINC.
- 7.3 The grazed field does not qualify as a SINC when compared to the Wales Biodiversity Partnership guidelines (2008) supporting no habitats or species of value. It has some potential to support protected species with roosting bats identified from the building complex to the west and the mature trees on Site appear to offer features suitable for supporting roosting bats; the trees are also

of some potential for breeding birds. The woodland will also provide breeding and foraging for birds and possibly roosting site for bats as well as a foraging and commuting corridor. The Site was not considered to support suitable habitats for other protected species groups although badgers are known from the adjacent LNR and will be considered in the development plans. There are no local recent or historic records of dormice and they are considered not to be present in the area.

- 7.4 The Biodiversity data search showed a record of a dead water vole from the centre of the horse grazed field in what is unsuitable habitat. The description of the location where the animal was found does not agree with the Site description either and it is most likely that this is an incorrect grid Reference.
- 7.5 The Site may have some value for foraging birds; seed eating birds such as chaffinch and goldfinch were present on the Site during the survey. The main attraction for birds will be the amenity and wooded areas although the open field is likely to attract thrushes during passage and winter. The presence of typically woodland and urban bird species are likely to breed in the trees and wooded areas., however the Site is not considered to be important for birds with many similar habitats in the locality. Its position in a semi-rural area makes the presence of rare species less likely as does the overgrazed nature of the Site.
- 7.6 The Site may have potential for hedgehog and measures should be taken in any future Site design to ensure that passage of hedgehog across the Site is possible; recommendations are made in Section 9. In general, the Site is not important for habitats or species outlined in Section 7 of the Environment (Wales) Act 2016, however bats have been identified using the Site and surveys elsewhere report on this.
- 7.7 The Site lies immediately adjacent to Eaglesbush Valley LNR and a generic NPT Woodland SINC. Both the LNR and wooded SINC offer some value to foraging birds and probably bats. Whilst the species diversity and quality of the construction zone is poor, there is potential for indirect impacts on the adjacent woodlands. These may be due to incidents during construction or in the longer term use of the Site. In particular, given the amount of tipping from the properties on Meadow Road into the woodland on Site, rubbish dumping from the new properties into the woodland and Eaglesbush valley LNR will be addressed by suitable buffer zones between the development and the woodlands.
- 7.8 The scheme layout plans show the provision of a buffer zone between the development and Eaglesbush LNR, with the residential properties separated from the LNR by the Site access road. The woodland at Target Note 4 remains largely unaffected by the development with a single property adjacent to the dense scrub vegetation around it. The provision of SUDS at the lower part of the Site should appropriately contain any surges of drainage water and contain contamination during the life of the development.
- 7.9 The woodland at TN4 is identified as restored ancient woodland and in the adjacent LNR semi-natural ancient woodland is identified throughout. Buffer zones will be required to protect the woodlands during the construction period in accordance with BS 5837:2012, *Trees in relation to design, demolition and construction*.

- 7.10 As mentioned in Section 6, Ecosystem Resilience, under the Environment (Wales) Act 2016 Local Planning Authorities (LPA's) and other public bodies must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. Assessment of the Ecosystem Resilience is therefore an integral part of the LPA's duty and they will need to consider the impacts of the proposed development upon the resilience of the adjacent wooded areas in this context. LPA's are directed to consider the resilience of ecosystems early in the planning process to aid assessment of the impacts of any proposed development upon biodiversity. In addition, a letter from the Chief Planning Officer clarified planning requirements in relation to biodiversity impacts (see Section 8, Relevant Legislation and Policies paragraphs 8.17-8.19) points out the responsibility of the LPA to maintain and enhance biodiversity and to provide '*a net benefit for biodiversity*'.
- 7.11 At its most simple, this would mean that the LPA must protect the biodiversity value of the adjacent woodland and LNR and as mentioned above, the most probable method for this is to maintain a suitable buffer zone. The current proposed layout (Figure 3) achieves this therefore mechanisms for protecting the woodlands are largely addressed. It also maintains the boundary trees where much of the bat activity reported in the initial activity surveys has been noted, with bats using the wooded boundaries for commuting and foraging. A small number of mature trees will be removed to enable the development and these will be replaced to ensure continued connectivity around the Site for commuting bats.
- 7.12 The Site can be considered to be of limited value to wildlife in a Site context and the immediate area, but the development zone is of **no significant value** in its own right. Its value lies in the potential for commuting, foraging and roosting bats in the mature trees and the limited potential for breeding birds and use by those species for foraging. In relation to bats the impacts cannot be fully assessed until the recommended further surveys are completed, however overall for protected species it is considered to be of **minor significance** in a Site context but of **no significance** in a wider (County) context. This predicted impact assessments may be amended following the results of the further bat surveys.

Characterisation of Impact

- 7.13 An attempt has been made to quantify the Site in relation to Ecological Resilience in Section 6 as defined in the Environment (Wales) Act 2016, Section 6. The information should be collated by the LPA though, and can form part of the wider assessment that they are required to undertake as a public body instructed by the Welsh Government. It is clear however, that the proposed development has the potential to adversely impact upon the adjacent LNR and SINC sites and there may also be impacts upon bats, a European Protected Species (EPS).
- 7.14 The provision of suitable buffer zones to the woodlands on Site offer both protection to the woodlands and thus retain their value as habitats and wildlife areas. In relation to bats specifically, the limited tree removal may impact on roosting bats and a detailed impact assessment and compensation measures in relation to bats will be provided following further survey. Initial considerations suggest that retention of the mature trees across the Site generally, with proper compensation for this removed, will result in minimal impact upon foraging and commuting bats.

- 7.15 Impacts can be direct or indirect and affect both the habitats and species on Site and in areas adjacent to the Site. Direct impacts are that the indicative development will remove a large part of the existing on-Site habitats, including some mature trees and possibly the woodland SINC (TN4). There is further potential for pollution incidents to occur from drainage of construction or road drainage pollution into the adjacent Eaglesbush Valley LNR and Cryddan Brook and rubbish tipping in both woodland areas post construction.
- 7.16 Indirect impacts are likely to be the intrusion of artificial light spill into neighbouring habitats and impacts from housing on the retained wooded areas. There is also the potential for fragmentation of commuting routes for wildlife.

Predicted Development Impacts

- 7.17 Further survey is currently being undertaken to understand the impacts of the development upon bats. If tree roosts are identified, then there may be a significant impact which will need to be addressed and a derogation licence sought from Natural Resources Wales to allow works to proceed. Bat activity surveys are currently being undertaken to be reported fully at a later stage but have produced species expected in this locality given the habitats present and species reported in the biological data search. Early analysis shows the Site to support commuting and foraging bats of widespread species including those which can be negatively affected by artificial light spill; recommendations are made in relation to the trees and potential for bats in Section 9, Recommendations.
- 7.18 However, with current knowledge of the Site, including the initial results of the bat activity surveys it is considered that the loss of habitat to be destroyed on Site through the development on Site and their potential to support protected species will be of **minor significance** in a Site context and of **no significance** in a county context if the recommendations for mitigation measures made in Section 9 are fully implemented.
- 7.19 The potential for indirect impacts into neighbouring habitats is addressed in Section 9, Recommendations, by controlling potential construction and post construction pollution incidents and artificial light spill. Indirect impacts on adjacent habitats are considered to be of **no significance** if the recommendations in Section 9 are fully implemented.
- 7.20 These impacts will be re-assessed following the completion of the tree roost assessments.

8 RELEVANT LEGISLATION AND POLICIES

Birds

- 8.1 Part I of the Wildlife and Countryside Act 1981 (as amended) makes it an offence (with certain limited exceptions and in the absence of a licence) intentionally to kill, injure or take any wild bird, or intentionally to damage, take or destroy its nest whilst being built or in use, or to take or destroy its eggs. Consequently, even common birds such as blackbirds or robins, and their nests and eggs are protected in this way. Any works involving removal or other management of trees or shrubs must be undertaken outside the breeding bird season (March- August).

- 8.2 Further, section 1(5) of Part 1 of the W&C Act states any person intentionally disturbing any wild bird included in Schedule 1 whilst it is building a nest or is in or near a nest containing eggs or young or disturbs the young of such a bird is committing an offence and liable to a special penalty.
- 8.3 The Conservation of Habitats and Species Regulations 2017 (as amended) has strengthened the protection of wild birds and their habitats. The Regulations now serve “To help preserve, maintain and re-establish habitats for wild birds.”
- 8.4 Under the amended Regulations, Local Planning Authorities (as well as national statutory conservation bodies such as Natural Resources Wales) are required to protect and create bird habitat.

Bats

- 8.5 All UK bats are protected under the Wildlife and Countryside Act 1981. Schedule 5 of this act makes it illegal to intentionally kill, injure or take bats. It is also an offence to intentionally damage or destroy their place of rest. In 2007 the offences of killing, injuring or taking species under Section 9(1), 9(2) and 9(4)a of European Protected Species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) were removed to avoid duplication with their protection under Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (The Habitats Directive) as amended. The regulations remove the defence of inadvertent or accidental damage to roosts and make the offence ‘absolute’.
- 8.6 They are also protected under Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (The Habitats Directive) as amended which requires the United Kingdom government to provide European Protected Species with strict protection.
- 8.7 The Habitats Directive is transcribed into England and Wales Law by The Conservation of Habitats and Species Regulations 2017, this legislation consolidates amendments made to the earlier 2010 act. This legislation states in Part 3, Protection of Species, paragraph 43(1) that a person who:
- (a) deliberately captures, injures or kills any wild animal of a European Protected Species,
 - (b) deliberately disturbs wild animals of any such species,
 - (c) deliberately takes or destroys the eggs of such an animal, or
 - (d) damages or destroys a breeding site or resting place of such an animal,
- is committing an offence.
- 8.8 Further, with regard to disturbance of EPS, Paragraph 43(2) that disturbance is an act which is likely to:
- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - (b) to affect significantly the local distribution or abundance of the species to which they belong.

- 8.9 In the case of a development involving the loss or modification of a habitat which may affect an EPS the above legislation must be considered and it may be necessary to apply to Natural Resources Wales for a European Protected Species Derogation Licence EPSL.
- 8.10 The introduction of the Conservation of Habitats and Species Regulations 2017, has removed the defence of killing or injuring a protected species during a lawful operation, thus even in an instance where planning permission is granted, the presence of EPS must be considered and mitigated for prior to commencement of works. Under the above regulations, a derogation licence can only be given if three tests are satisfied:
- The action proposed is in the interest of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance to the environment;
 - That there is not a satisfactory alternative;
 - That the action proposed will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.
- 8.11 Failure to satisfy the regulations and obtain an EPSL where required is likely to result in prosecution and can lead to severe fines of up to £5000 per animal and possible imprisonment.
- 8.12 Eight species of bat are listed under section 7 of the Environment Wales Act (2106). Section 7 of the Act provides a list of living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This is a list of species considered at threat within Wales and in need of conservation management to maintain and enhance population numbers.
- 8.13 A duty is placed on the Local Authority by the Welsh Assembly Government to maintain and enhance populations of species listed in Section 7.

Hedgehogs

- 8.14 Hedgehogs are protected under the Wildlife and countryside Act 1981 (as amended) as a Schedule 6 species and Wild Mammals Protection Act (1996) from capture, deliberate killing and cruel treatment.

Reptiles

- 8.15 All common reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) schedule 5, from deliberate injury or killing (Section 9(1)) and sale (Section 9(5)).
- 8.16 A Welsh Assembly Government licence is not required to handle or disturb slow worms but there must be proper consideration of the presence of these animals on Site and mitigating measures implemented to minimise any impacts on them.

Securing Biodiversity Enhancements

- 8.17 Planning Policy Wales Technical Advice Note (TAN) 5, Nature Conservation and Planning, provides advice on how the planning system should contribute to biodiversity protection and enhancement. TAN 5 recognises the importance of biodiversity and the enjoyment of it. TAN 5 requires Local Planning Authorities (LPAs) to protect and enhance biodiversity during the

planning process and to encourage sustainable developments. It also requires LPA's to ensure that protected Sites are properly accounted for within the planning system.

- 8.18 The Chief Planning Officer sent a letter to LPAs (dated 23rd October 2019) following the refusal of a planning application. This letter has provided clarification on the Welsh Governments approach to Paragraph 6.4.5 of Planning Policy Wales 10 which sets out that “planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity”.
- 8.19 The purpose of this letter was to clarify that in light of the legislation and Welsh Government policy outlined above, where biodiversity enhancement is not proposed as part of an application, significant weight will be given to its absence, and unless other significant material considerations indicate otherwise it will be necessary to refuse permission. Biodiversity enhancement therefore will need to be included in any future planning application.

9 RECOMMENDATIONS

- 9.1 Mature trees will be retained wherever possible. Every effort should be made to retain as many mature trees as possible. Should any work be undertaken on any of the mature trees, either to remove or manage, there is likely to be a requirement for further survey in relation to bats. Many of the trees support a number of potential roost features and are considered to be probably of high potential to support roosting bats. Further surveys may consist of climbing surveys or observation surveys prior to felling.
- 9.2 Hawkeswood Ecology understands that the mature trees on the grazed field are protected by Tree Preservation Orders. If this is the case, the long term protection of these trees must also be satisfactorily resolved with the LPA prior to any works commencing.
- 9.3 Any works on trees and shrubs and vegetation clearance should be undertaken outside the accepted bird breeding season of March to August. If this is not possible, the affected areas will be searched by a suitably experienced ecologist prior to commencement of works. There is no licence for the destruction of active bird nests and nest translocations invariably fail. Any active nest found will be protected by a buffer zone until such time as it is no longer in use.
- 9.4 Nocturnal animals, including bats, can be affected by artificial light spill. Consideration will therefore be given to the level of external lighting around the Site and a detailed lighting scheme should be produced and agreed with the Local Planning Authority. Artificial lighting will take into consideration the details provided by the guidance note 08/18 produced by the Bat Conservation Trust and the Institution of Lighting Professionals.
- 9.5 Lighting will be located with consideration for nocturnal species and will avoid adjacent areas including the building complex to the west where there are known bat roosts and the woodland SINC, Eaglesbush Valley LNR and the mature trees on the Site boundaries and lane to the south and east of the development. Any domestic lighting will be placed at a level lower than three

metres, be cast to the ground with no up-lighting and will ideally be on a time switch to ensure any resultant light scatter is limited in duration; it should only be used in areas where safety is a consideration.

- 9.6 A number of trees assessed in the PRA require further survey. Either climbing surveys or activity surveys will be required as identified in Table 3. Initially a climbing survey is considered the best option to allow a proper assessment of roost potential to be carried out.
- 9.7 Close board fencing will be used to isolate the development from the adjacent woodland both on Site and to the buffer zone to Eaglesbush Valley LNR where necessary.
- 9.8 The buffer zones to the woodlands must offer both protection during and post development and allow for any rubbish that is tipped from gardens not to contaminate them. A schedule for clearing tipped material from the buffer zones is at least on an annual basis is recommended.
- 9.9 The use of close board fencing can isolate areas of garden, particularly impacting on hedgehogs. If the use of such fencing is proposed between gardens as well as at the Site boundary, boards will be cut out to give a minimum 15x15cm gap at the bottom, or more preferably be fitted to leave a minimum 15cm gap at ground level for the length of the fence.
- 9.10 Integral bat and bird boxes will be used in the new construction. Bat tubes will be located on buildings near the Site boundaries, particularly adjacent to woodland and LNR, and bird boxes, in particular swift and house sparrow boxes on a number of houses throughout the development. Typical examples are shown in Figure 4. The locations of bat and bird mitigation will be such that they are not vulnerable to attack from cats and are free from human interference.
- 9.11 Any landscaping plan should introduce native species reflecting those present in the local area (all native species should be of local provenance) or species with known value to British wildlife. Plantings should include species known to be valuable to foraging birds and bats such as those producing berries and attractive to insects, i.e. heather, hawthorn, pyracantha and hazel.
- 9.12 An area will be identified during the construction phase where chemicals and building materials can be safely stored and bonded to prevent escape into adjacent watercourses. There will be control measures undertaken no pollution or dust contamination impacts the adjacent SINC and LNR. These measures will be clearly outlined in a Construction Environmental Management Plan (CEMP) and will particularly address any pollution threat to the LNR.
- 9.13 A Site drainage strategy document will be drawn up and agreed showing how the runoff from the development will be prevented from impacting upon the downstream LNR. This will include a methodology to intercept foul waters and how they will be retained on Site or removed from Site without contamination of the Cryddan Brook and the wider LNR
- 9.14 Hedgerow and Tree roost protection zones (RPZ) will be outlined in the CEMP; no vehicles or mechanical works will be allowed in the RPZ areas. All tree protection works will comply with BS 5837:2012 - Trees in relation to design, demolition and construction.

- 9.15 These recommendations may be further modified following the results of the Tree Roost Assessment. Should there be evidence of roosting bats, a Derogation Licence will be needed to allow works to proceed if the trees supporting them are to be removed.

10 CONCLUSIONS

- 10.1 The Site is presently dominated by improved horse grazed pasture, mature trees and woodland. There are no habitats of particular biodiversity value within the proposed construction zone but there is a known bat roost in the building complex to the west; the trees on Site also appear to have potential to support roosting bats and breeding birds and further bat survey is ongoing.
- 10.2 If there is a requirement to remove or manage the mature trees on Site, it is probable that further survey for the presence of bats will be required; tree climbing surveys are currently being instructed. Initial bat activity survey results show the presence of common species typical of the habitats present on and near to the Site.
- 10.3 A number of recommendations are made in Section 9 and if implemented any impacts from the proposed scheme should be largely negated.

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**FIGURE 1:
PHASE 1 HABITAT MAP**

Figure 1: Phase 1 Habitat Survey map

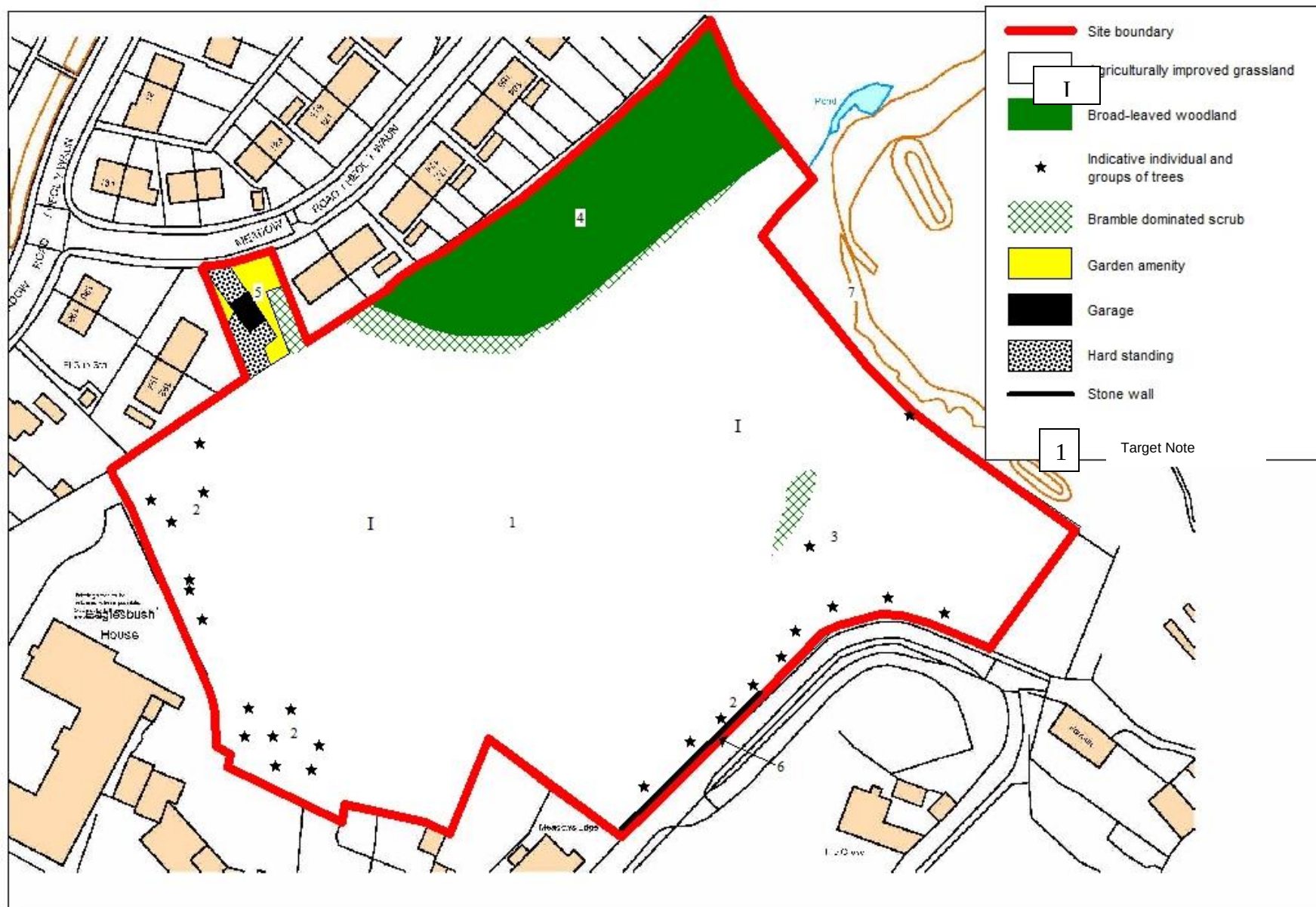


FIGURE 2
LOCATIONS OF TREES ASSESSED IN PRA

Figure 2: Location of trees assessed in Preliminary Roost Assessment

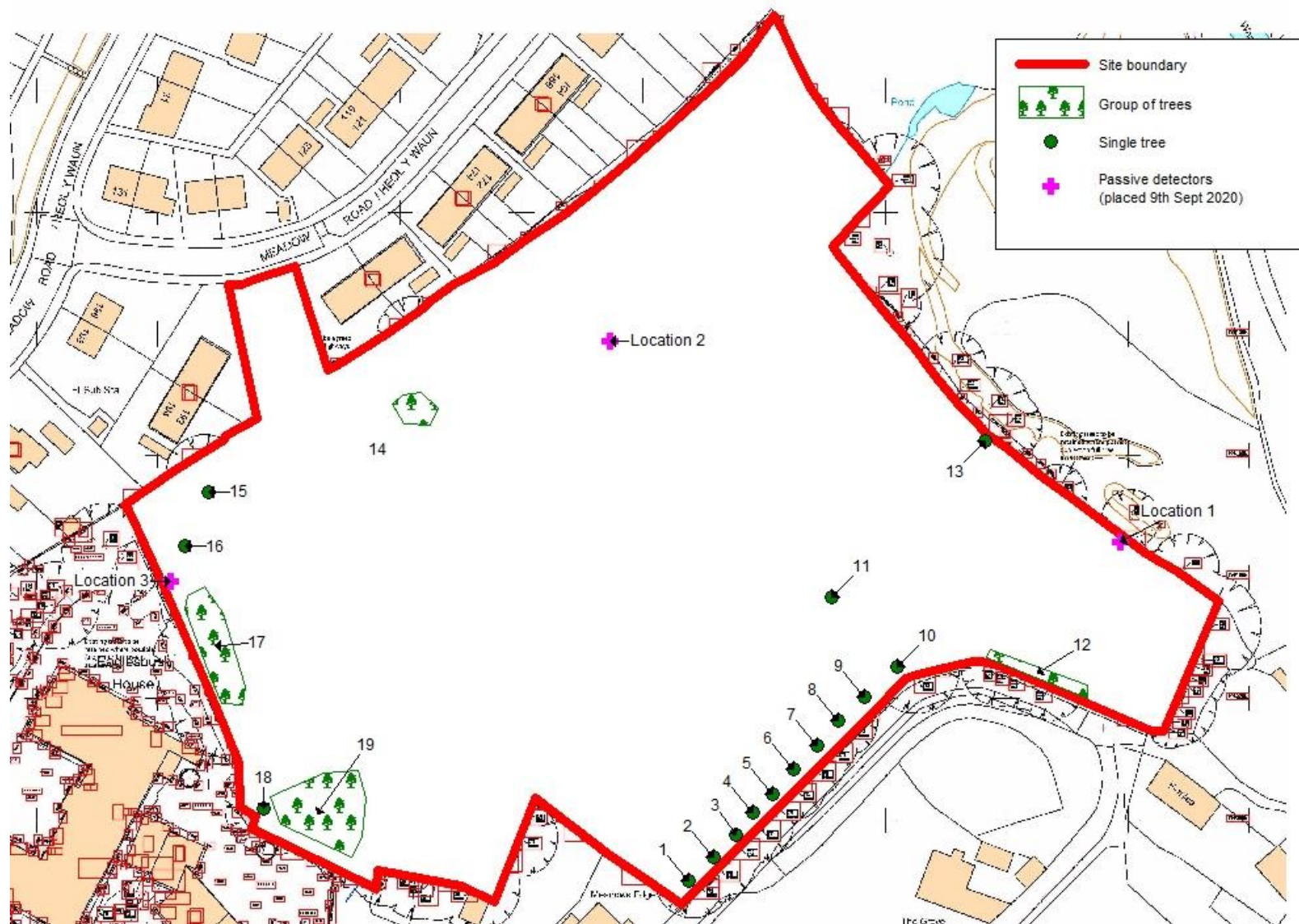


FIGURE 3
INDICATIVE MASTERPLAN OF DEVELOPMENT

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FIGURE 4
TYPICAL INTEGRAL BIRD AND BAT BOXES



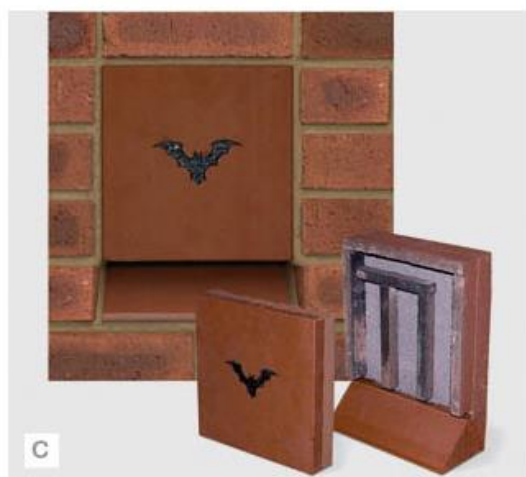
Free Access Bat Box A

- Available in all brick types
- Discrete single bat brick
- Easy to install
- Allows bats to create a natural home habitat within the cavity of the building



Enclosed Bat Box B

- Designed specifically for the pipistrelle bat
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work



Enclosed Bat Box C with engraved motif

- Designed specifically for the pipistrelle bat
- Available in smooth blue, smooth gold & smooth red
- Attractive "bat" motif
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work



Typical House Sparrow box to be fitted under eaves



Triple Swift Cavity nest box

APPENDIX 1
DAFOR SCALE OF COVER ABUNDANCE

The DAFOR scale is used as a simple measure of cover abundance for individual plant species within a habitat. The scale is as follows:

- D Dominant
- A Abundant
- F Frequent
- O Occasional
- R Rare
- (L Locally – sometimes used as a prefix to the above)

APPENDIX 2
PHASE 1 HABITAT SURVEY TARGET NOTES

1. Agriculturally improved grassland. A horse grazed field (no animals present at the time of survey), short sward. Small areas of bramble and bracken present on the site of a small in-filled quarry area and around a mature oak (TN4). Species recorded were:

<i>Species</i>	<i>Frequency</i>
Bracken	LF
Bramble	F/LA
Cocksfoot	O
Common bent	F/LA
Creeping buttercup	F
Crested dog's-tail	A
Daisy	A
False oat-grass	O
Meadow buttercup	O
Perennial rye-grass	A
Red clover	O
Red fescue	F
Ribwort plantain	O
Timothy	O
White clover	F
Yorkshire fog	A

2. Mature trees in various locations on the Site. The trees and groups of trees are discussed in detail in Table 3.
3. Large mature, stag-headed oak showing a large number of potential bat roost features, described in Table 3.
4. Broad-leaved woodland. Unmanaged woodland with a fairly closed canopy dominated by frequent oak, beech and sycamore with occasional ash. Scot's pine and elm are rarely present. The shrub layer is poorly developed with holly, beech and hawthorn and the ground flora is largely shaded out and poorly developed. Species recorded were:

<i>Species</i>	<i>Frequency</i>
Ash	O
Beech	F
Bluebell	F
Bramble	F/LA

Broad buckler fern	O
Common nettle	LF
Common oak	F
Hawthorn	O
Hedge woundwort	O
Herb robert	O
Holly	O
Ivy	A
Leaf litter	F
Red campion	LF
Red fescue	O
Rough meadow grass	O
Scot's pine	R
Sycamore	F
Wood speedwell	O

5. Gardens within the properties off Meadow Road, one is well managed with formal lawns and a garage, the other is dominated by bramble scrub with some woody growth. Large areas of hard-standing and concrete slabs. Species recorded were:

<i>Species</i>	<i>Frequency</i>
Bramble	A
Buddleia	O
Common field speedwell	LF
Common nettle	F
Creeping buttercup	LA
Dog rose	O
False oat-grass	LA
Great willowherb	R
Ivy	LF
Privet	F
Ragwort	F
Sycamore	F

- 6 Stone wall, collapsed in places, along track on southern boundary of Site. Ivy is frequent to locally abundant and maidenhair spleenwort is frequent on its structure.
7. Off site woodland to east, forming part of Eaglesbush Valley LNR, viewed only from the Site boundary. Closed canopy of common oak, beech and ash with a shrub layer of scattered hazel. Bramble is frequent in the ground flora, a pond is visible in the lower areas of the Site some 50 metres from the Site boundary.

APPENDIX 3
LIST OF PLANT SPECIES RECORDED IN THE SURVEY

<i>Species</i>	<i>Scientific Name</i>
Ash	<i>Fraxinus excelsior</i>
Beech	<i>Fagus sylvatica</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Bracken	<i>Pteridium aquilinum</i>
Bramble	<i>Rubus fruticosus</i> agg
Broad buckler fern	<i>Dryopteris dilatata</i>
Buddleia	<i>Buddleia davidii</i>
Cocksfoot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis capillaris</i>
Common field speedwell	<i>Veronica persica</i>
Common nettle	<i>Urtica dioica</i>
Common oak	<i>Quercus robur</i>
Creeping buttercup	<i>Ranunculus repens</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Daisy	<i>Bellis perennis</i>
Dog rose	<i>Rosa canina</i>
False oat-grass	<i>Arrhenatherum elaitus</i>
Great willowherb	<i>Epilobium hirsutum</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Hedge woundwort	<i>Stachys sylvatica</i>
Herb robert	<i>Geranium robertianum</i>
Horse chestnut	<i>Aesculus hippocastanum</i>
Holly	<i>Ilex aquifolium</i>
Ivy	<i>Hedera helix</i>
Maidenhair spleenwort	<i>Asplenium trichomanes</i>
Meadow buttercup	<i>Ranunculus acris</i>
Perennial rye-grass	<i>Lolium perenne</i>
Privet	<i>Ligustrum ovalifolium</i>
Ragwort	<i>Scenecio jacobaea</i>
Red campion	<i>Silene dioica</i>
Red clover	<i>Trifolium pratense</i>
Red fescue	<i>Festuca rubra</i> agg
Ribwort plantain	<i>Plantago lanceolata</i>
Rough meadow grass	<i>Poa trivialis</i>
Scot's pine	<i>Pinus sylvestris</i>
Sycamore	<i>Acer pseudoplatanus</i>
Timothy	<i>Phleum pratense</i>
White clover	<i>Trifolium repens</i>
Wood speedwell	<i>Veronica montana</i>

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Yorkshire fog	<i>Holcus lanatus</i>
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APPENDIX 4
PHOTOGRAPHS



Looking across the horse grazed field (TN1) towards Eaglesbush House



Looking across to the woodland at TN4 with Meadow Road beyond

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The proposed access off Meadow Road



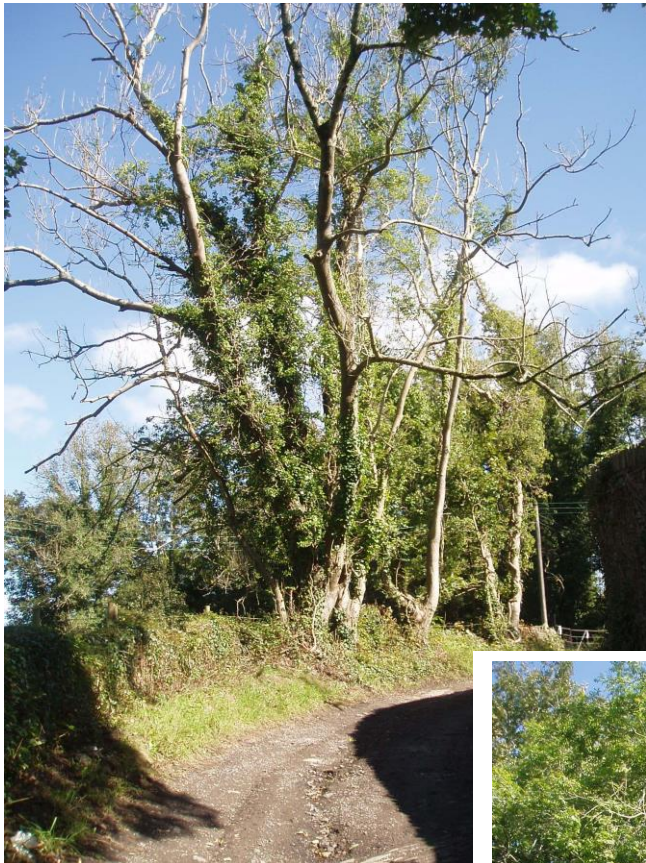
Abandoned amenity, the bramble scrub in the garden off Meadow Road



The row of trees on the
south eastern boundary and
the stone wall (TN6)



The mature oak, Target Note 3



The group of ash (12)
showing sever ash dieback

The mature ash (3) showing dieback
Also has significant cracks





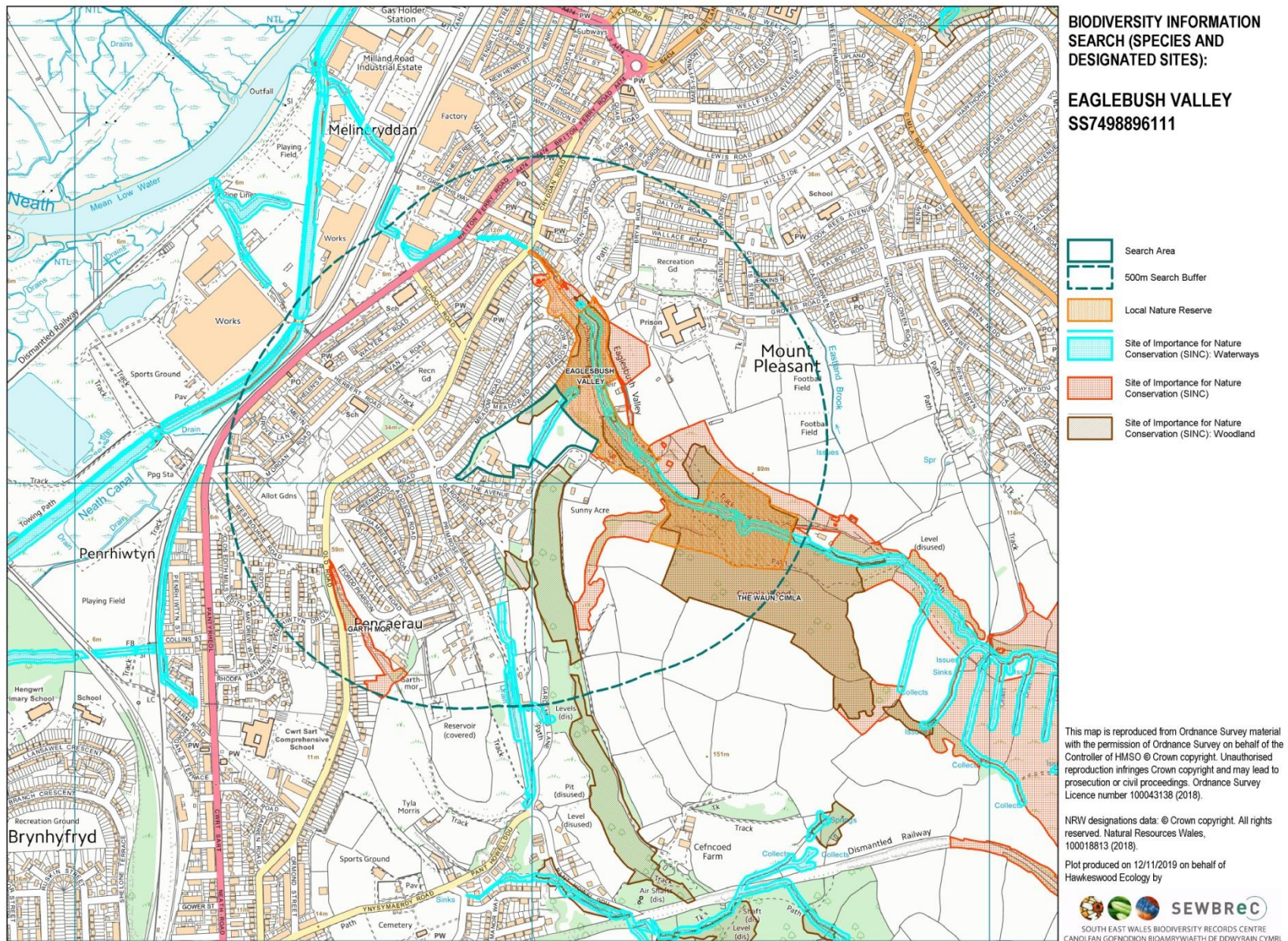
The group of horse chestnut (19)



The woodland interior at TN4

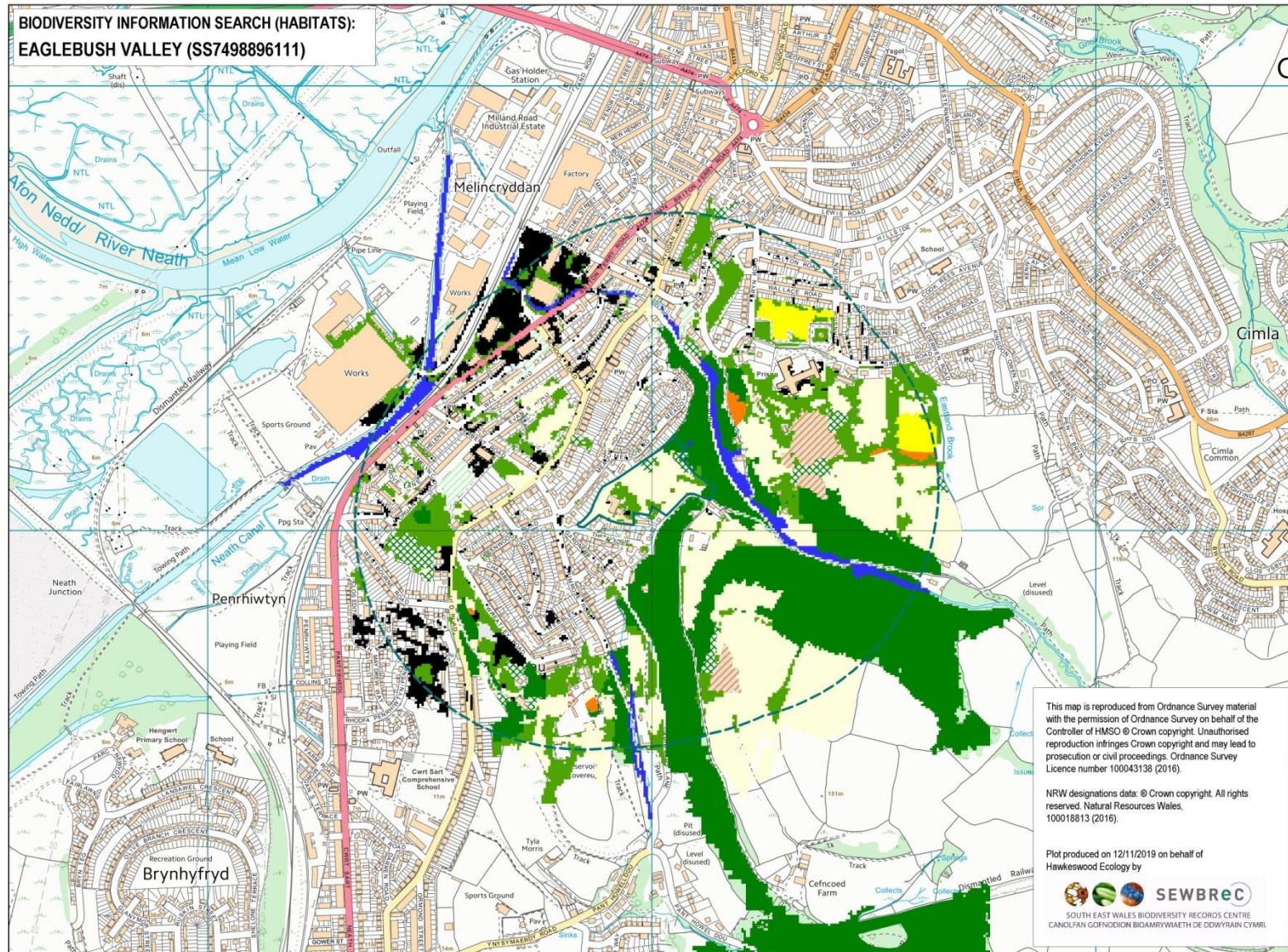
APPENDIX 5
PROTECTED SITES MAP (SEWBRcC)

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APPENDIX 6
SEWBRc PHASE 1 MAP

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