

Preliminary Ecological Appraisal

Survey site:

Boundary Farm, 620 Berryfield Lane, Melksham, SN12 6EF

Client:

David Guley

Report date:

25/07/2025

Project:

This report has been produced to support a planning application with Wiltshire Council. The proposal is described as: *'Redevelopment of existing pasture into a lake and wildlife-focused recreational area for residential use.'*

PEA Survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

PRA survey methodology and legislation can be found in the Arbtech Supplement: [PRA Methodology and Legislation - 2024.](#)

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The field survey was undertaken by Laurence Wills ACIEEM, BSc (Hons), Senior Ecologist. Laurence has 4 years' experience completing Preliminary Ecological Appraisal and Preliminary Roost Assessments and holds a Natural England Class 2 bat licence (licence number available on request).					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
24/07/2025	16	63	50	2.66	None
Report Validity					
This report is considered valid for a period of 18 months in accordance with CIEEM guidance in the lifespan of Ecological Reports and Surveys.					
Limitations					
It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records. A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.					
Executive Summary					
<i>Further Surveys required to inform the planning application</i>					
None.					
<i>Recommended Mitigation/Compensation Requirements</i>					
Bats	Lighting mitigation proposed.				
Birds	Enhancement habitat proposed.				

Ecological Survey Factor Conclusion, Impact or Recommendations	Detailed using desk study and site survey. Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the Project Ecologist for advice. A site location plan in Appendix A, a site habitat plan in Appendix B, and site photographs in Appendix C. Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).
Site context	
	The site is situated on the outskirts of Melksham, Wiltshire (national grid reference: ST 89718 62831). The site comprises an open pasture field with limited structural diversity. Adjacent to the southern boundary are field margins supporting ruderal vegetation, with an industrial area also located to the south and a residential building to the southeast. Additional agricultural fields surround the site in all directions, with a well-connected network of hedgerows extending across the wider landscape. While the site itself is considered to provide limited opportunities for wildlife, the wider environment is assessed as offering moderate potential due to the presence of hedgerows and surrounding agricultural habitats. The site does not contain any habitats listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Other habitats within the site have low ecological value. Notable habitats are present within 2km.
Habitats and flora	
<i>Survey Results</i>	Habitats recorded on site include: g4 (101,81) – Modified grassland, with cattle grazing and ruderal/ephemeral. A description of each habitat type is provided below with photos shown in Appendix C and locations of the habitats illustrated on the site plan in Appendix B:

	<u>g4 (101.81) – Modified grassland, with cattle grazing and ruderal/ephemeral</u> The site is dominated by modified grassland which is currently being used as pastoral land for cattle. The site was previously utilised as an arable field, however the exact timing on this is unknown. The habitat is fenced off towards the south, which has allowed for self-colonising species to occur along the boundary, however, these are of low ecological value. The habitat is bordered by a residential property to the southeast and an industrial unit to the south. Areas of the arable field are present offsite to the north. Although colonising species are present along the southern border, the plant species per m² within the majority of the grassland is low, approximately 3 vascular species. The sward height of the grassland is consistently low due to grazing pressure with little variability. No scrub species are present within the grassland. Physical damage is evident in approximately 10% of the overall habitat due to the present of poaching from cattle and vehicle tracks. Some bare ground is present, however this is approximately less than 5% of the area. Species recorded within the habitat include perennial ryegrass <i>Lolium perenne</i> (D), annual meadow-grass <i>Poa annua</i> (A), cock's foot <i>Dactylis glomerata</i> (F), wall barley <i>Hordeum murinum</i> (F), dandelion spp. <i>Taraxacum</i> spp. (F), small-leaved dock <i>Rumex acetosella</i> (F), mayweed spp. <i>Matricaria</i> spp. (O), field thistle <i>Cirsium arvense</i> (O), spear thistle <i>Cirsium vulgare</i> (O), common nettle <i>Urtica dioica</i> (O), herb Robert <i>Geranium robertianum</i> (O), bristly ox-tongue <i>Helminthotheca echioides</i> (O), and creeping buttercup <i>Ranunculus repens</i> (O). <i>The Surrounding Landscape</i> A review of the Multi Agency Geographic Information for the Countryside (MAGIC) database was completed to determine the presence of protected and/ or notable habitats within 2km of the site. Protected and/ or notable habitats recorded within 2km and their nearest distance from the site are detailed below. • UK Priority Habitat: Deciduous Woodland – ~225m northeast. • National Forest: Broadleaved Woodland – ~225m northeast.
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	• UK Priority Habitat: Traditional Orchids – ~1.5km northwest.
<i>Foreseen Impacts</i>	The Site The habitats within the site are considered to be of low ecological value. It is not anticipated that the removal of the species present will result in any detrimental loss to the site or the local environment. The Surrounding Landscape Due to the distance between the site and nearest protected/notable habitat and the localised impacts of the proposed development, no impacts to protected/notable habitats in the wider landscape are anticipated.
<i>Recommendations</i>	Further Surveys While the development will not result in a net increase in dwellings on the site, a Biodiversity Net Gain (BNG) assessment may be required subject to Wiltshire Council's discretion. Enhancements To enhance the site for biodiversity in line with the National Planning Policy Framework (NPPF), native species of local importance should be selected for landscaping within the development. Mature trees should be included, as well as scrub/grassland species to create opportunities for small mammals and invertebrates. These enhancements should be situated, wherever possible, as close to existing habitats within the environment.
Designated Sites	
<i>Survey Results</i>	Statutory designated sites A 2km radius data search for the presence of statutory designations has been undertaken using the MAGIC database, however no statutory sites were recorded. The data search indicates that the site is not subject to any statutory or non-statutory designations.

	The site is not situated within any Site of Special Scientific Interest (SSSI) impact zone. <i>Non-statutory designated sites</i> The presence of non-statutory designated sites within 2km of the site cannot be established without data from the Local Records data centre. However, due to the small-scale impacts of the development on site and surrounding habitats, a local search is not deemed necessary.
<i>Foreseen Impacts</i>	<i>Statutory and non-statutory designated sites</i> No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the location of the site with surrounding physical barriers.
<i>Recommendations</i>	None.
Invasive / non-native species	
<i>Survey results</i>	No invasive/non-native species were recorded within the site.
<i>Foreseen impacts</i>	None
<i>Recommendations</i>	Remain vigilant for any colonising non-native invasive species.

Invertebrates																				
Survey Findings	The modified grassland present on-site is of low ecological value and is considered to provide very low ecological benefits for invertebrate species due to a lack of available niches and pollinating species. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.																			
Foreseen Impacts	The artificial surfaces and scattered plants will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.																			
Recommendations	No further surveys.																			
Bats																				
Survey Findings	Desk Study A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. The development of the site is not considered to have an impact on previous developments/displaced bat roosts within the area. The results are displayed below: <table><tr><th>Bat species</th><th>Year licence obtained</th><th>Licence Activity</th><th>Distance from site</th></tr><tr><td>Brown long-eared bat (<i>Plecotus auritus</i>), common pipistrelle (<i>Pipistrellus pipistrellus</i>)</td><td>2017</td><td>Roost destruction</td><td>~470m southeast</td></tr><tr><td>Brown long-eared bat, common pipistrelle, serotine (<i>Eptesicus serotinus</i>)</td><td>2015</td><td>Roost destruction</td><td>~630m east</td></tr><tr><td>Brown long-eared bat, common pipistrelle, serotine, soprano pipistrelle (<i>Pipistrellus pygmaeus</i>),</td><td>2011</td><td>Roost destruction</td><td>~1.5km north</td></tr></table>				Bat species	Year licence obtained	Licence Activity	Distance from site	Brown long-eared bat (<i>Plecotus auritus</i>), common pipistrelle (<i>Pipistrellus pipistrellus</i>)	2017	Roost destruction	~470m southeast	Brown long-eared bat, common pipistrelle, serotine (<i>Eptesicus serotinus</i>)	2015	Roost destruction	~630m east	Brown long-eared bat, common pipistrelle, serotine, soprano pipistrelle (<i>Pipistrellus pygmaeus</i>),	2011	Roost destruction	~1.5km north
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	Brown long-eared bat, soprano pipistrelle	2018	Roost destruction	1.1km northeast	
	A search was undertaken for any Special Areas of Conservation (SAC) designated for bats within 10km of the site, and it is noted that Bath & Bradford On Avon Bats SAC is located ~8km to the northwest of the site. Foraging and commuting habitat Habitats recorded on site were assessed and considered to provide little opportunities for foraging and commuting bats due to the lack of developed habitats that would support invertebrates that could be utilised as a feeding source, or tall linear features that could be utilised for commuting. There is also a lack of linear features within the adjacent landscape. Roosting bats – buildings There are no buildings on site and therefore impacts to roosting bats within buildings/structures can be discounted. Roosting bats – trees There are no mature trees on site and therefore no trees have been deemed suitable for roosting bats due to a lack of suitable features.				
Foreseen Impacts	Foraging and commuting bats Due to a lack of optimal onsite habitats and adjacent offsite habitats, the site is considered to hold negligible potential for foraging and commuting bats. Bath & Bradford On Avon Bats SAC The site is located ~8km southeast of Bath & Bradford-on-Avon Bats SAC, which is designated as a key hibernation location for greater horseshoe (<i>Rhinolophus ferrumequinum</i>) and Bechstein's (<i>Myotis bechsteinii</i>) bats. Due to the large commuting distances				

	of these species and the sensitivity of the site, a precautionary lighting migration strategy will be provided to ensure no adverse impacts are experienced. However, due to the nature of the proposed plans, lighting is unlikely to be included.
<i>Recommendations</i>	<i>Bath & Bradford On Avon Bats SAC - Mitigation</i> Although external lighting is unlikely to be used on site, any lighting installed will be minimal and will adhere to the 'Bats and Artificial Lighting At Night' Guidance Note BN08/23 (BCT & ILP, 2023). These specifications include (but are not limited to): • External lighting will be positioned to ensure that no light spills onto nearby vegetation, including mature trees. • All lighting fixtures will be free of ultraviolet (UV) components. Metal halide and compact fluorescent lamps will not be utilised. • LED lighting will be exclusively employed, offering sharp cut-off, lower intensity, excellent colour rendering, and dimming capabilities. • A warm white light source with a colour temperature of 2700 Kelvin or lower will be used to minimise the blue light component.
Birds	
<i>Survey Findings</i>	There are no buildings on site and there are no habitats on site that have the potential to support nesting birds. This is due to the lack of mature habitats, such as scrub or mature trees, that would provide refuge or nesting opportunities.
<i>Foreseen Impacts</i>	No impacts anticipated
<i>Recommendations</i>	<i>Enhancement features</i> In line with the NPPF, habitat enhancements for nesting birds could be incorporated into the new development onsite. A minimum of two bird boxes will be installed on mature trees (once they have established). Suitable bird boxes include (but not limited to): • Vivara Pro Barcelona WoodStone Open Nest Box.

	Vivara Pro Seville 28mm WoodStone Nest Box
Reptiles	
<i>Survey Findings</i>	Desk Study A search of the Magic.gov.uk database indicates that there have been no granted EPSL pertaining to reptiles within 2km of the site. On site Habitats Although grassland is present on site, the habitat is not suitable for reptiles due to short sward height and areas of patchy/bare ground. Furthermore, the site is surrounded by industrial development to the south and agricultural fields, which are considered sub-optimal for reptile migration. Although hedgerows are located within the wider landscape, the area suffers from poor connectivity and as a result it is considered unlikely that this would therefore be optimal. Reptiles are therefore considered unlikely to migrate from any nearby suitable habitats to the development site. As such it is likely that reptiles are absent from the development site.
<i>Foreseen Impacts</i>	No impacts anticipated.
<i>Recommendations</i>	None.
Amphibians	
<i>Survey Findings</i>	Desk Study One EPSL record for great crested newts was recorded on the MAGIC within 2km of the site. This record is located ~1.2km southeast of the site. Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds

	(Langton et al. 2001). The urban development between this record from the application site include a well-used road and a trainline. Therefore, the connectivity is considered poor. Three Great Crested Newt Pond Surveys (2017 – 2019) have been undertaken ~1km west of the site, however, none recorded the presence of great crested newts. <i>Aquatic habitat suitability (including ponds within 500m)</i> There are no ponds on the site, and there are no recorded ponds within 500m of the site. <i>Terrestrial Habitat Suitability</i> Due to the short sward of the grassland onsite and the lack of developed vegetation present, the site is not considered suitable for great crested newts or other amphibians. There is no vegetation or growth that has the potential to provide refuge or foraging opportunities that are considered suitable or would attract species onto the site.
<i>Foreseen Impacts</i>	None.
<i>Recommendations</i>	None required.
Badger	
<i>Survey Findings</i>	No badger setts were noted on site or within a 30m radius of the site. The site is considered unsuitable for badgers due to the lack of food sources and vegetation for refuge. The site is also surrounding by habitat unsuitable for badgers and therefore reducing the likelihood of badgers being present within the areas around of the site. Commuting activities on site is therefore seen as negligible.

<i>Foreseen Impacts</i>	No impacts are anticipated on badgers as a result of the proposed development.
<i>Recommendations</i>	None.
Otters and Water Voles	
<i>Survey Findings</i>	The site contains no suitable habitat to support otters or water voles due to the lack of aquatic habitats on or adjacent the site.
<i>Foreseen Impacts</i>	None.
<i>Recommendations</i>	None.
Hazel dormouse	
<i>Survey Findings</i>	Desk Study A search of the Magic.gov.uk database indicates that there have been no granted EPSL pertaining to dormice within 2km of the site. Habitats The site is within an open grassland setting and there are no suitable habitats within the development area. As such it is considered highly likely that hazel dormice are absent from site.
<i>Foreseen Impacts</i>	None.
<i>Recommendations</i>	None.

Other species - hedgehog	
<i>Survey Findings</i>	No habitats are present onsite have the potential to support hedgehogs due to the shortly kept nature of the grassland. The surrounding habitats are also considered limited for hedgehogs due to the lack of developed grasslands mixed vegetation.
<i>Foreseen Impacts</i>	None.
<i>Recommendations</i>	None required.

Appendix A: Site Location Plan



Appendix B: UKHabs Habitat Plan



Appendix C: Site Photographs



Photo 1: Modified grassland.



Photo 2: Modified grassland.



Photo 3: Modified grassland with areas of ruderal along the borders.



Photo 4: Modified grassland.

Appendix D: Legal and Report Version**Legal**

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Final	1.0	Laurence Wills ACIEEM, BSc (Hons), Senior Ecologist	25/07/2025