

Preliminary Ecological Appraisal

Survey site:

Barnsley Academy, Farm Road, Kendray, S70 3DL

Client:

United Learning Trust

Survey date:

8th July 2024

Project:

This report is prepared to inform a planning application with Barnsley Metropolitan Borough Council. The proposal is described as:

Installation of 5nr Air Source Heat Pumps

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

The site survey was undertaken by Gareth Hey BSc (Hons), MSc, ACIEEM (Natural England Protected Species Licence Numbers: [Bats] (2021-51195-CLS-CLS) [Great Crested Newts] (2017-30374-CLS-CLS))					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
08/07/2024	17	77	20	7	None

Ecological Survey Factor	Detailed using desk study and site survey (carried out under good weather conditions). 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 lead surveyor for advice.
Conclusion, Impact or Recommendations	
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, proposal plans in appendix 3 and photos in appendix 4).	
Summary of Survey Findings (UKHab codes used)	<p>Two locations are currently being considered for the location of the heat pumps, however, this report will compile the findings of both areas into one report, given their proximity to each other. The survey comprises two small areas of land, one centred on National Grid Reference SE 36391 04538 and the other SE 36308 04481. Both sites have a size of 0.01ha.</p> <p>The sites comprise two small areas of land, situated within the grounds of Barnsley Academy. The eastern most parcel entirely comprises an area of hardstanding, present within an area of carparking, with the western most parcel comprises a small area of grassland, that forms part of a wider area of recreational ground. The school itself is situated within a highly urbanised environment, been surrounded by residential development and a variety of urban infrastructure. The wider landscape comprises further urban development, with some agricultural land also present.</p>

	<p><u>Modified grassland [g4]</u></p> <p>The western parcel comprises a small (100m²) area of modified grassland. This area of grassland is subject to routine mowing, to maintain its amenity value for use by the school. The sward is extremely short and species poor, with an approximate height of 7cm, with species primarily dominated by perennial ryegrass, with some herbaceous species such as white clover, creeping buttercup and dandelion present.</p> <p><u>Other developed land [u1b6]</u></p> <p>The eastern parcel comprises an area of hardstanding that is currently utilised as an area of carparking by the school. There is no vegetation associated with this area.</p> <p><u>Local habitats</u></p> <p>There are occurrences of priority habitat present within a 2km radius of the sites, including deciduous woodland and good quality semi-improved grassland. The closest of these is a small area of deciduous woodland, located 400m south-west of the sites, and are separated from the site by an extensive area of extensive residential development.</p>
<i>Foreseen Impacts</i>	<p>Development in the eastern parcel will have no impact on biodiversity, given the low value of the habitats present.</p> <p>Although the habitats present within the western site are of low value for biodiversity, the loss of such habitat could result in a net loss to biodiversity.</p> <p>No impacts to any notable habitats are anticipated due to the small scale and distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.</p>

Recommendations	If development is proceeded in the western parcel, more than 25m ² of habitat will be removed for the development. As the proposals are not a householder application or a self-build scheme, a biodiversity net gain (BNG) will be required as the proposals do not fall under any of the exemption.		
Locality and Designated Sites			
Summary of Survey Findings	Statutory designated sites within a 2km radius of the site are detailed below:		
	Site name	Distance from site	Reason for designation
	Worsborough Country Park Local Nature Reserve (LNR)	1km south	The site is good for water fowl. Habitats include a reservoir, willow carr, managed grassland/meadowland, reed bed and woodland.
	Dearne Valley Wetlands Site of Special Scientific Interest (SSSI)	1km south	Dearne Valley Wetlands SSSI is of special interest for the following nationally important features: <ul style="list-style-type: none">Breeding gadwall Mareca strepera, shoveler Spatula clypeata, garganey Spatula querquedula, pochard Aythya ferina, bittern Botaurus stellaris, black-headed gull Chroicocephalus ridibundus and willow tit Poecile montanus klienschmidtii.Non-breeding gadwall Mareca strepera and shoveler Spatula clypeata.Diverse assemblages of breeding birds of Lowland damp grasslands, Lowland scrub and a mixed assemblage of

			Lowland open waters and their margins and Lowland fen.
	Stairfoot Brickworks SSSI	1.7km east	<p>The site contains exposures of the Aegiranum Marine Band which marks the Duckmantian- Bolsovian stage boundary of the Westphalian Series. The marine band is about 4 metres thick, and consists of black and blue-grey shales and mudstones which overlie a thin coal and seat earth. While the lower and upper parts of the marine band only contain fish fragments and <i>Naiadites</i> bivalves, the middle part of the marine band contains a fauna which includes an assemblage of ammonoids (including the index species <i>Donetzoceras aegiranum</i>, as well as numerous nautiloids, pectinoid bivalves, gastropods and crinoids.</p> <p>The site provides the best available exposure of the Aegiranum Marine Band within the Pennine Basin as well as the best known exposure of the ammonoid bearing part of the marine band in the world. The site is particularly good for the study of the index species <i>Donetzoceras aegiranum</i> and numerous well-preserved adults and juveniles are preserved.</p> <p>The Aegiranum Marine Band at Stairfoot Brickworks is an internationally important horizon for the stratigraphical</p>

			correlation of the Westphalian Series across much of north-west Europe.
	The site lies within a SSSI Impact Risk Zone, however, the proposed development type is not listed as a possible high risk for this designation.		
Foreseen Impacts	No impacts foreseen.		
Recommendations	None required		
Invasive / Non-native species			
Summary of Survey Findings	No problematic invasive and non-native species recorded on site.		
Foreseen Impacts	N/A		
Recommendations	No further surveys but remain vigilant.		
Invertebrates			
Summary of Survey Findings	No habitat for protected or notable invertebrates is found on site.		
Foreseen Impacts	None foreseen.		
Recommendations	No further surveys.		
Bats			
Summary of Survey Findings	There are no bat roosting habitats on site. Low numbers of bats could utilise the grassland within the western parcel, with wooded areas located nearby, for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site and commuting around the area.		

	There is one bat European Protected Species License (EPSL) within 2km. The EPSL (2017-32557-EPS-BDX) is located 1km south of the site and relates to the damage and destruction of a breeding site and resting place for soprano pipistrelle.
<i>Foreseen Impacts</i>	The proposed development may lead to an increase in the amount of current lighting of surrounding habitats, without mitigation. This may disturb commuting bats.
<i>Recommendations</i>	No further surveys are required. A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2
Birds	
<i>Summary of Survey Findings</i>	No evidence of nesting birds was found on site during the surveys. The habitats present at the site are unsuitable for nesting birds as they comprise highly disturbed areas.
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	None required.
Reptiles	
<i>Summary of Survey Findings</i>	There is no suitable habitat present on site for reptiles due to a lack of habitats such as scrub and rank grassland which would offer refuge for these species. Further, the site is surrounded by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration and therefore reptiles are 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. There are no EPSLs for reptiles within 2km of the site.
<i>Foreseen Impacts</i>	None foreseen.

<i>Recommendations</i>	None required.
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Amphibians	
<i>Summary of Survey Findings</i>	<p>No ponds are present on site or within 500m of the site. The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and modified grassland offer sub-optimal habitat for terrestrial amphibians. In addition to the above, given the urban nature of the surrounding landscape (i.e. dominated by roads and hard standing which are sub-optimal for amphibians) it is unlikely that amphibians will migrate on to site. Further, there is limited suitable terrestrial habitat across the wider landscape reducing the likelihood of amphibians being present on site and across the surrounding areas.</p> <p>A review of the MAGIC database returned no granted EPSL records for great crested newts within 2km of the site. Further, no positive class survey licence return or DLL historic survey data (2017 – 2019) were present within 2km of the site.</p>
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys are required.
Badger	
<i>Summary of Survey Findings</i>	No evidence of badgers was found on or within 30m of the site.
<i>Foreseen Impacts</i>	None foreseen, however any commuting badgers present at time of works may be impacted.
<i>Recommendations</i>	<p>Basic precautionary mitigation during works is recommended:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to habitats which badgers could use. South and west boundaries.

	<ul style="list-style-type: none">Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>In the unlikely event that a badger sett is identified within 30m, works must cease and advice must be sought from a suitably qualified ecologist.</p>
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Riparian animals	
<i>Summary of Survey Findings</i>	There are no watercourses on or connected to the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	N/A
Hazel dormouse	
<i>Summary of Survey Findings</i>	<p>The site lies outside of the know current range for hazel dormice and there are no suitable habitats within the development area. As such it is considered likely that hazel dormice are absent from site.</p> <p>There are no dormouse European Protected Species License (EPSL) within 2km.</p>
<i>Foreseen Impacts</i>	No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	Hedgehogs are known to use gardens and areas of grassland within urban environments. As such, they may utilise the modified grassland within the western parcel. However, the site is entirely surrounded by roads and footpaths, and high levels of lighting, resulting in high levels of disturbance at the site, which provides sub-optimal conditions for hedgehogs. However, it is possible that hedgehog may utilise the site occasionally.
<i>Foreseen Impacts</i>	It is likely that the proposals will result in the removal of the modified grassland at the site. The loss of such habitat is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.
<i>Recommendations</i>	<p>A precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.

	<ul style="list-style-type: none">• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.</p>
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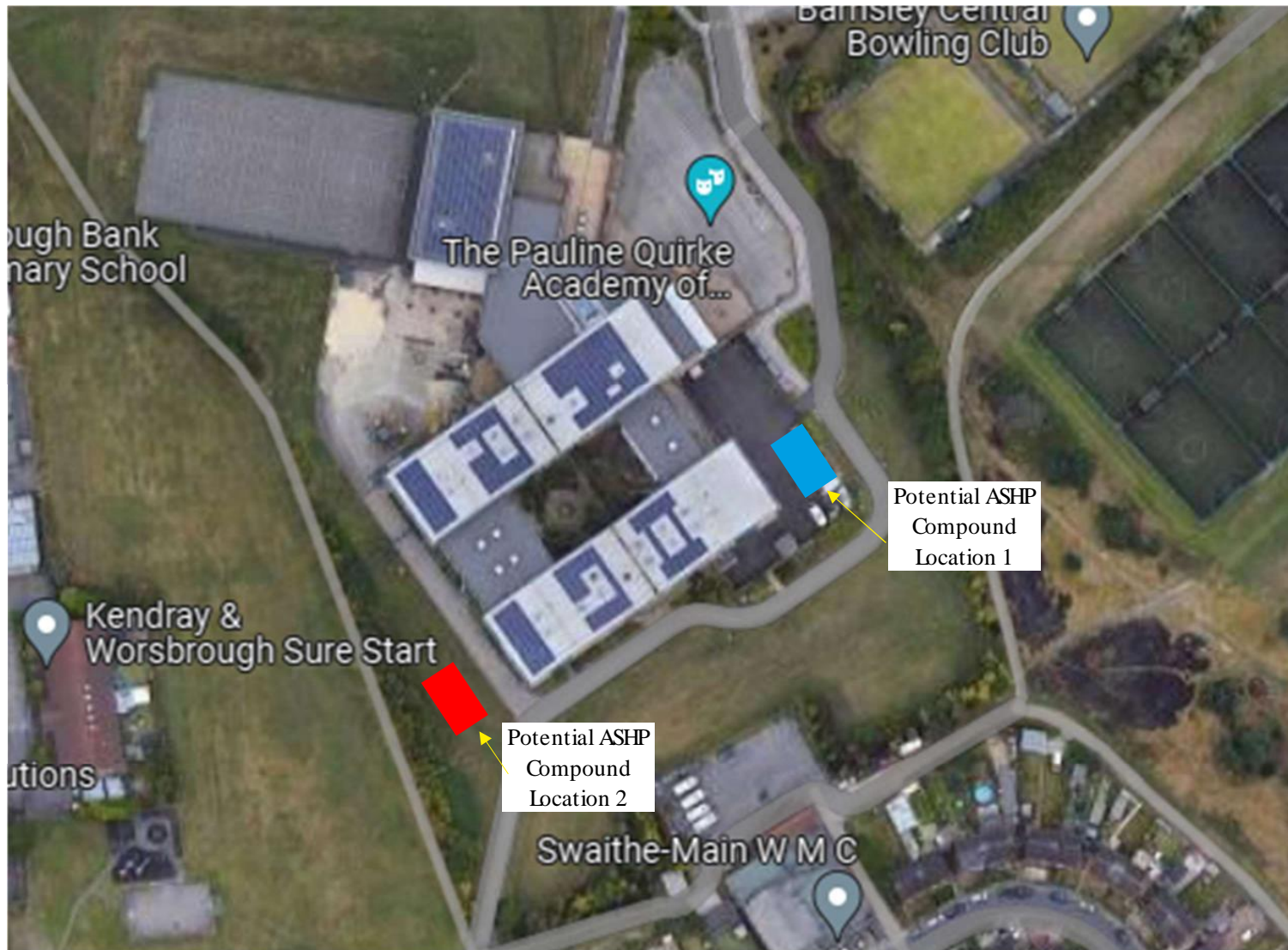
Appendix 1: Survey/Habitat map



Appendix 2: Location map



Appendix 3: Proposed plan



Appendix 4: Photos



Photo 1: The western parcel comprises a small area of modified grassland, situated on top of a raised bank.



Photo 2: The eastern location comprises an area entirely of hardstanding.

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