



Preliminary Ecological Appraisal

at

Vauxhall Industrial Estates, Wrexham

on behalf of

Neptune Architectural

by



March 2023

EXECUTIVE SUMMARY

- Heatons have been commissioned to undertake a Preliminary Ecological Appraisal (PEA) to determine the ecological status of the land to the south of Johnstown, Wrexham. The site is located within a well-established industrial estate, within the Brother Industries land. The site purely comprises hard standing tarmac.
- Planning permission is being sought for the erection of a ground mounted warehouse within the existing yard area. The client applied for planning permission in November 2022. A consultation response was received from Natural Resources Wales which stated that further information was required.
- The Phase 1 Habitat Survey was undertaken on the 23rd February 2023, by Senior Ecologist, Amy Tose MSc BSc (Hons). The weather conditions were sunny with low cloud, light breeze, and a starting temperature of 8°C.
- Four internationally important statutory designated sites were located within 10km of the site boundary. The closest being Johnstown Newt Sites (SAC), located approximately 170m to the east of the site boundary. Due to the lack of functionally linked habitats from the SAC sites to the site boundary, significant dispersal barriers and small scale nature of the works, **direct and indirect impacts are not anticipated.**
- One statutory designated site for nature conservation was returned within 2km of the site boundary. Stryt Las a'r Hafod (Site of Special Scientific Interest (SSSI)), located approximately 170m to the east of the site boundary. Due to the lack of functionally linked habitats, significant dispersal barrier and small-scale nature of the works, **direct and indirect impacts are not anticipated.**
- Five non-statutory designated sites were located within the 2km search radius of the site. The closest being Stryt Las Park (County Wildlife Site (CWS)), located approximately 460m to the north-west of the site boundary.
- The habitats within the site boundary comprise of hard standing only.
- Due to the limited value of the ecological habitats on site, it was not considered likely to support any protected or notable species.
- However, due to the close proximity of the site to known GCN breeding ponds, further recommendation should be adhered to during the works to further minimise the risks. These recommendations can be found in paragraph 5.3.3.

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1 INTRODUCTION

1.1 Scope of works

1.1.1 Heatons have been commissioned to undertake a Preliminary Ecological Appraisal to determine the ecological status of the land to the south of Johnstown, Wrexham, hereafter referred to as the site.

1.1.2 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey and a preliminary protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal (PEA) Report in accordance with CIEEM (2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Impact Assessment (EclA) which supports a planning application.

1.1.3 This PEA aims to:

- Undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- Map and assess the habitats present on site;
- Assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work, if necessary;
- Provide outline options for mitigation measures as appropriate; and
- Make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.

1.1.4 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of Heatons. The survey and desk-based assessment undertaken as part of this review are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 Site Location and Description

1.2.1 The site is located to the south of Johnstown, Wrexham, found at grid reference SJ 30397 45523. The site is comprised purely of tarmac hardstanding, surrounded by a well-established industrial estate within the Brother Industries land.

1.2.2 The site is accessed to the east of Ruabon Road, within the industrial estate.

1.3 Proposed Development

1.3.1 Planning permission is being sought for the erection of a ground mounted warehouse within the existing yard area of the premises. The proposed warehouse will be 25m by 15m in area, with an overall height of 7.4m. The building will not have traditional foundations and will be ground mounted.

1.4 Planning History

1.4.1 The client applied for planning permission in November 2022. A consultation response was received from Natural Resources Wales which stated:

'...We have concerns with the application as submitted because inadequate information has been provided in support of the proposal. To overcome these concerns, you should seek further information from the applicant regarding protected sites and protected species. If this information is not provided, we would object to this planning application...'

2 NATIONAL LEGISLATION AND PLANNING POLICY

2.1 Introduction

- 2.1.1 This section summarises the legislation and planning policy in relation to ecology and biodiversity within the UK.

2.2 Legislation

- 2.2.1 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended).
- 2.2.2 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA), 1981 (as amended) and Countryside and Rights of Way (CROW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).
- 2.2.3 Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales. The S6 duty requires that public authorities 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.
- 2.2.4 Section 7 goes on to deal with biodiversity lists and duty to take steps to maintain and enhance biodiversity. This section replaces the duty in Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006 in Wales. The Welsh Ministers publish, review and revise lists of living organisms and types of habitats in Wales that they consider are of key significance to sustain and improve biodiversity in relation to Wales. These are known as Priority Species and Priority Habitats.

- 2.2.5 Finally, Planning Policy Wales (PPW 2021) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales.
- 2.2.6 The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation.
- 2.2.7 The Environment (Wales) Act 2016 also introduces the Sustainable Management of Natural Resources (SMNR) and sets out a framework to achieve this as part of decision-making. The relevant key features of the SMNR approach to which the planning system can contribute are:
- Improving the resilience of ecosystems and ecological networks;
 - Halting and reversing the loss of biodiversity;
 - Maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits and solutions; and
 - Ensuring resilient locational choices for infrastructure and built development, taking into account water supplies, water quality and reducing, wherever possible, air and noise pollution and environmental risks, such as those posed by flood risk, coastal change, land contamination and instability.

3 ASSESSMENT METHODOLOGY

3.1 Desktop Study

- 3.1.1 Data regarding statutory and non-statutory designated sites, plus any records of protected or notable species and habitats was obtained from North Wales Environmental Information Service and online resources, details of which are provided in Table 3.1 below.

Table 3.1: Consulted Resources and Search Radius.

Consultee / resource	Data Obtained		Search Radius from Site Boundary
Cofnod - North Wales Environmental Information Service	Statutory and Non-statutory designated sites Protected and notable species		2km
Multi-Agency Geographic Information for the Countryside (MAGIC)	Statutory Designated Sites	International	10km
		National	2km
	Non-Statutory Designated Sites		2km
	Priority Habitats		2km

3.2 Phase 1 Habitat Survey

- 3.2.1 The PEA consisted of two components: a Phase 1 Habitat Survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.
- 3.2.2 The Phase 1 Habitat Survey was undertaken on the 23rd February 2023, by Senior Ecologist, Amy Tose BSc (Hons). The weather conditions were sunny with low cloud, light breeze, and a starting temperature of 8°C.
- 3.2.3 The Phase 1 Habitat Survey followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (CIEEM, 2012). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.

- 3.2.4 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat Survey. The site was assessed for its suitability to support protected species, in particular Great Crested Newts (GCN) *Triturus cristatus*, reptiles, birds, Badgers *Meles meles*, bats, and other species of conservation importance that could pose a planning constraint.
- 3.2.5 The surveyor looked for evidence of use including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted down and where possible followed. Fence boundaries were walked to establish any entry points or animals signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

3.3 Limitations

- 3.3.1 The desk study data is third party controlled data, purchased for the purposes of this report only. Heaton's cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.
- 3.3.2 The protected / notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected / notable species group.

4 RESULTS

4.1 Desk Study

Designated sites

- 4.1.1 Four internationally important statutory designated sites were located within 10km of the site boundary. The closest being Johnstown Newt Sites (SAC), located approximately 170m to the east of the site boundary.
- 4.1.2 One statutory designated site for nature conservation was returned within 2km of the site boundary. Stryt Las a'r Hafod (Site of Special Scientific Interest (SSSI)), located approximately 170m to the east of the site boundary.
- 4.1.3 Five non-statutory designated sites were located within the 2km search radius of the site. The closest being Stryt Las Park (County Wildlife Site (CWS)), located approximately 460m to the north-west of the site boundary.
- 4.1.4 A summary of these sites is provided in Table 4.1 below.

Table 4.1: Summary of Designated Sites within the 2km Search Radius.

Site name	Designation	Interest Features	Distance from site boundary
Internationally Important Statutory Designated Sites			
Johnstown Newt Sites	SAC	The area is designated for its GCN population. The population of GCN is one of the largest known in Great Britain and has been the focus of much conservation management over the last few years. Breeding sites are provided in part by a mining subsidence pool, and natural water-filled hollows on clay, whilst other ponds have been created as part of nature conservation management. Terrestrial habitat varies from marshy grassland, grazed farmland, and swamp through to scrub and broad-leaved woodland.	170m to the east

River Dee and Bala Lake	SAC	The area is designated for the water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. As well as the presence of Atlantic salmon <i>Salmo salar</i> and floating water-plantain <i>Luronium natans</i> .	3.5km to the south
Berwyn and South Clwyd Mountains	SAC	The area is designated for the European dry heaths (largest stands in Wales) and blanket bogs (most extensive tract in Wales).	4.2km to the west
Midland Meres and Mosses Phase 2 (Wales)	RAMSAR	A series of 18 areas made up of nutrient-rich open water bodies (meres) with fringing habitats of reed swamp, fen, carr and damp pasture, and peatlands. The wide range of habitats supports nationally important flora and fauna.	9.9km to the north-east
Statutory Designated Sites			
Stryt Las a'r Hafod ¹	SSSI	The area is of special interest for its amphibians. Of particular interest is the population of the GCN, supporting one of the largest known breeding populations in GB. The area also supports significant populations of other amphibians.	170m to the east
Non-statutory Designated Sites			
Stryt Las Park	CWS	It is an area of grassland, woodland and ponds. The area is within Stryt Las a'r Hafod (SSSI) and Johnstown Newt Sites (SAC).	460m to the north-west

¹ https://naturalresources.wales/media/663230/SSSI_1376_Citation_EN001202e.pdf

Gardden Fort Wood	Local Wildlife Site (LWS)	The woodland is located on the steep sides of an ancient fort. There is a semi-improved pasture at the centre of the fort which is species-poor. Additionally, there is a pond at the centre.	490m to the south-west
Northeast Wales	Important Invertebrate Area (IIA)	This IIA supports a nationally and internationally important population of various invertebrate species, from endangered to globally protected. These important invertebrate populations rely on the varied habitats found in this IIA, including rivers, streams, limestone grassland, cliffs, brownfield sites, parklands, woodlands and peat bogs.	510m to the north-east
Bonc yr Hafod	CWS	It is an area of woodland and grassland. The area lies on the site of Hafod Colliery.	920m to the north-east
Gardden Wood / Rocky Wood	LWS	Semi-natural broad-leaved woodland with large boulders and cliffs due to parts being disused quarries. A river intersects the LWS.	1.2km to the south-west

4.2 Veteran Trees

4.2.1 Seven veteran trees were returned within 2km of the site boundary, details of which can be found in Table 4.2.

Table 4.2: Summary of Veteran Trees within close proximity to the site.

Veteran Status	Details	Closest distance to site
Veteran	Tree ID: 97756 Species: Oak <i>Quercus spp.</i> Girth: 5.24m	1.3km to the south-west
Notable	Tree ID: 97765 Species: Oak Girth: 3.5m	1.3km to the south-west
Notable	Tree ID: 111829 Species: Lime <i>Tilia spp.</i> Girth: 5.29m	1.4km to the south-west
Notable	Tree ID: 111828 Species: Oak Girth: 4.53m	1.5km to the south-west
Notable	Tree ID: 97756 Species: Sweet Chestnut <i>Castanea sativa</i> Girth: 3.6m	1.7km to the south-west
Notable	Tree ID: 111841 Species: Hazel <i>Corylus avellana</i> Girth: 1m	1.7km to the south-east
Notable	Tree ID: 111826 Species: Oak Girth: 3.77m	1.8km to the south-west

4.3 Priority Habitats

4.3.1 The following areas of priority habitat were returned within the 2km search radius, see Table 4.3.

Table 4.3: Summary of the Priority Habitats within the 2km Search Radius (Welsh Government, n.d.)

Habitat type	Closest distance to site
Open Mosaic Habitat	188m to the east
Ancient Semi-Natural Woodland	450m to the west
Purple Moor Grass and Rush Pasture	580m to the north-west
Lowland Meadows	1.1km to the east
Ancient Replanted Woodland	1.4km to the south-east

4.4 Species Records

4.4.1 Records of protected species were obtained from the NWEIS. A number of species of conservation importance or otherwise notable were recorded within the 2km search radius of the site. A summary of these records is provided in Table 4.4.

4.4.2 In order to simplify the results, only recorded of species from the last 10 years are shown.

Table 4.4: Protected and Notable Species Records.

Species	Nearest distance from site (km)	Year of most recent record	Number of records	Conservation status
Amphibians				
Great Crested Newt <i>Triturus cristatus</i>	20m to the north	2022	62	European Protected Species (EPS). Priority Species (PS). WCA, 1981.

Common frog <i>Rana temporaria</i>	20m to the north	2022	45	WCA, 1981.
Common toad <i>Bufo bufo</i>	190m to the north-east	2022	37	PS. WCA, 1981.
Palmate newt <i>Lissotriton helveticus</i>	400m to the north-west	2022	40	WCA, 1981.
Smooth newt <i>Lissotriton vulgaris</i>	410m to the north-west	2022	52	WCA, 1981.
Reptiles				
Grass snake <i>Natrix Helvetica</i>	1.3km to the south-west	2016	1	PS. WCA, 1981.
Mammals				
Badger <i>Meles meles</i>	CONFIDENTIAL Within 2km of the site boundary	2021	5	PS. WCA, 1981. Endangered on both GB and England Red List for Mammals.
Common pipistrelle <i>Pipistrellus pipistrellus</i>	190m to the west	2021	5	EPS. WCA, 1981.
Noctule bat <i>Nyctalus noctula</i>	200m to the west	2021	3	EPS. PS. WCA, 1981.
Soprano Pipistrelle	200m to the west	2021	4	EPS. WCA, 1981.

<i>Pipistrellus pygmaeus</i>				
Pipistrelle species <i>Pipistrellus spp.</i>	570m to the north-west	2021	1	EPS. PS. WCA, 1981.
Hedgehog <i>Erinaceus europaeus</i>	760km to the north-west	2021	31	PS. WCA, 1981. Vulnerable to extinction on GB Red List for Mammals.
Polecat <i>Mustela putorius</i>	1.4km to the north-west	2014	1	PS. WCA, 1981.
Brown long-eared bat (BLE) <i>Plecotus auritus</i>	1.5km to the north-west	2016	1	EPS. PS. WCA, 1981.
Otter <i>Lutra lutra</i>	1.9km to the west	2019	1	EPS. PS. WCA, 1981.
Birds				
Iceland gull <i>Larus glaucoides</i>	70m to the east	2014	2	Amber List: Birds of Conservation Concern (BoCC). WCA, 1981.
Snipe <i>Gallinago gallinago</i>	410m to the west	2022	37	Amber List: BoCC. WCA, 1981.
Wren <i>Troglodytes troglodytes</i>	430m to the north-east	2022	27	Amber List: BoCC. WCA, 1981.

Mallard <i>Anas platyrhynchos</i>	450m to the north-west	2021	200+	Amber List: BoCC. WCA, 1981.
Sparrowhawk <i>Accipiter nisus</i>	480m to the north-east	2021	8	Amber List: BoCC. WCA, 1981.
Woodpigeon <i>Columba palumbus</i>	480m to the north-east	2022	200+	Amber List: BoCC. WCA, 1981.
Bullfinch <i>Pyrrhula pyrrhula</i>	490m to the north-west	2021	17	Amber List: BoCC. WCA, 1981.
Song thrush <i>Turdus philomelos</i>	490m to the north-east	2022	15	Amber List: BoCC. WCA, 1981.
House sparrow <i>Passer domesticus</i>	500m to the north-east	2022	200+	Red List: BoCC. WCA, 1981.
Black-headed gull <i>Chroicocephalus ridibundus</i>	530m to the north-east	2021	8	Amber List: BoCC. WCA, 1981.
Dunnock <i>Prunella modularis</i>	650m to the north-west	2021	58	Amber List: BoCC. WCA, 1981.
Greenfinch <i>Chloris chloris</i>	660m to the north-west	2021	31	Red List: BoCC. WCA, 1981.
Whitethroat <i>Curruca communis</i>	720m to the west	2021	17	Amber List: BoCC. WCA, 1981.
Willow warbler <i>Phylloscopus trochilus</i>	720m to the west	2021	19	Amber List: BoCC. WCA, 1981.
Swift <i>Apus apus</i>	780m to the west	2021	200+	Red List: BoCC. WCA, 1981.

Teal <i>Anas crecca</i>	790m to the west	2016	19	Amber List: BoCC. WCA, 1981.
Kestrel <i>Falco tinnunculus</i>	800m to the north-west	2022	7	Amber List: BoCC. WCA, 1981.
Starling <i>Sturnus vulgaris</i>	800m to the west	2021	200+	Red List: BoCC. WCA, 1981.
Greylag goose <i>Anser anser</i>	840m to the west	2021	21	Amber List: BoCC. WCA, 1981.
Skylark <i>Alauda arvensis</i>	840m to the west	2020	2	Red List: BoCC. WCA, 1981.
Marsh tit <i>Poecile palustris</i>	950m to the south	2020	1	Red List: BoCC. WCA, 1981.
Kingfisher <i>Alcedo atthis</i>	960m to the south	2021	2	WCA, 1981.
Fieldfare <i>Turdus pilaris</i>	980m to the south	2019	200+	Red List: BoCC. WCA, 1981.
Brambling <i>Fringilla montifringilla</i>	1km to the south	2022	7	WCA, 1981.
Herring gull <i>Larus argentatus</i>	1km to the east	2021	200+	Red List: BoCC. WCA, 1981.
Lesser black-backed gull <i>Larus fuscus</i>	1km to the east	2021	200+	Amber List: BoCC. WCA, 1981.
Wood warbler	1.1km to the south-west	2015	1	Red List: BoCC. WCA, 1981.

<i>Phylloscopus sibilatrix</i>				
Lapwing <i>Vanellus vanellus</i>	1.2km to the south-west	2019	6	Red List: BoCC. WCA, 1981.
Spotted flycatcher <i>Muscicapa striata</i>	1.2km to the south-west	2011	2	Red List: BoCC. WCA, 1981.
Stock dove <i>Columba oenas</i>	1.2km to the south-west	2021	13	Amber List: BoCC. WCA, 1981.
Barn owl <i>Tyto alba</i>	1.3km to the south-west	2016	2	WCA, 1981.
Grey wagtail <i>Motacilla cinerea</i>	1.3km to the south-west	2019	4	Amber List: BoCC. WCA, 1981.
Mistle thrush <i>Turdus viscivorus</i>	1.4km to the north-east	2020	5	Red List: BoCC. WCA, 1981.
Hobby <i>Falco subbuteo</i>	1.9km to the north	2014	1	WCA, 1981.
Tree sparrow <i>Passer montanus</i>	1.9km to the north	2011	10	Red List: BoCC. WCA, 1981.
Woodcock <i>Scolopax rusticola</i>	1.9km to the south	2021	1	Red List: BoCC. WCA, 1981.
Tawny owl <i>Strix aluco</i>	2km to the south	2013	2	Amber List: BoCC. WCA, 1981.
Invertebrates				
Alder signal <i>Stathmopoda pedella</i>	1.3km to the north-east	2017	1	Nationally scarce

Cinnabar <i>Tyria jacobaeae</i>	400m to the north-west	2020	6	Priority: UK BAP status.
Holly blue <i>Celastrina argiolus</i>	530m to the north-west	2022	1	Low: Butterfly Conservation Priority (BCP).
Scarce blue-tailed damselfly <i>Ischnura pumilio</i>	940m to the north-east	2017	6	Near threatened
Alder leaf beetle <i>Agelastica alni</i>	950m to the north-east	2017	50+	Nationally Rare
Silver-washed fritillary <i>Argynnis paphia</i>	1.3km to the north-east	2021	1	Low: BCP.
Flowering Plants				
Bee orchid <i>Ophrys apifera</i>	360m to the north-west	2020	1	WCA, 1981.
Bluebell <i>Hyacinthoides non-scripta</i>	790m to the west	2017	5	WCA, 1981.

4.5 Invasive Species Records

4.5.1 Records of notable invasive species were obtained from the NWEIS. A summary of these records is provided in Table 4.5.

4.5.2 In order to simplify the results only recorded of species from the last 10 years are shown.

Table 4.5: Summary of the notable Invasive Species returned within the 2km Search Area.

Species	Nearest distance from site (km)	Year of most recent record	Number of records	Conservation status
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Mammals				
American Mink <i>Neovison vison</i>	2km to the north	2015	1	WCA, 1981
Flowering Plants				
New Zealand pigmyweed <i>Australian swamp-stonecrop</i>	500m to the north-west	2018	10	WCA, 1981
Japanese knotweed <i>Fallopia japonica</i>	790m to the west	2018	31	WCA, 1981.
Giant hogweed <i>Heracleum mantegazzianum</i>	1km to the north-east	2017	1	WCA, 1981
Himalayan balsam <i>Impatiens glandulifera</i>	1.2km to the south-west	2014	1	WCA, 1981.
Rhododendron <i>Rhododendron ponticum</i>	1.2km to the north-west	2014	2	WCA, 1981.

4.6 Previous Ecological Surveys

2019 GCN Results

- 4.6.1 A GCN monitoring report survey was produced by Oakwood Ecology in 2019 where GCN population surveys were undertaken between April and May 2019 at the Hafod Quarry and Landfill, located approximately 170m to the east of the site boundary. See Oakwood Ecology (2019) for further information.

The R1 and R2 Sites

- 4.6.2 The spring torch surveys yielded a peak count of 176 adult GCN's across these two sites (on visit #2).
- 4.6.3 A total of 18 ponds were found to contain GCN larvae.

The Hafod Lagoons

- 4.6.4 The night of the combined peak count for all sites (Visit #2) was also the peak count for the Lagoons, with 12 GCN recorded. Both lagoons contained GCN larvae in August.

- 4.6.5 The lagoons host a range of wild-fowl species that are known predators of newt larvae, and the ponds may consequently be acting as an ‘ecological trap’ whereby the adult newts keep returning to breed despite the unsuitability of the ponds for successful larval maturation. However, the utilitarian function of these ponds as settling lagoons for the surface water drainage of the site takes precedence over newt conservation.

Overall Great Crested Newt Monitoring Surveys (2007 – 2019)

- 4.6.6 Figure 4.1 details the trend of GCN peak counts within Hafod Quarry. Overall, the trend is positive, and the peak count has recovered from the low numbers of 2011. The major fluctuations seen in the peak counts from year to year are most likely to be related to external factors such as weather conditions, because none of the site-specific factors appear to have changed that much on a similar timescale.

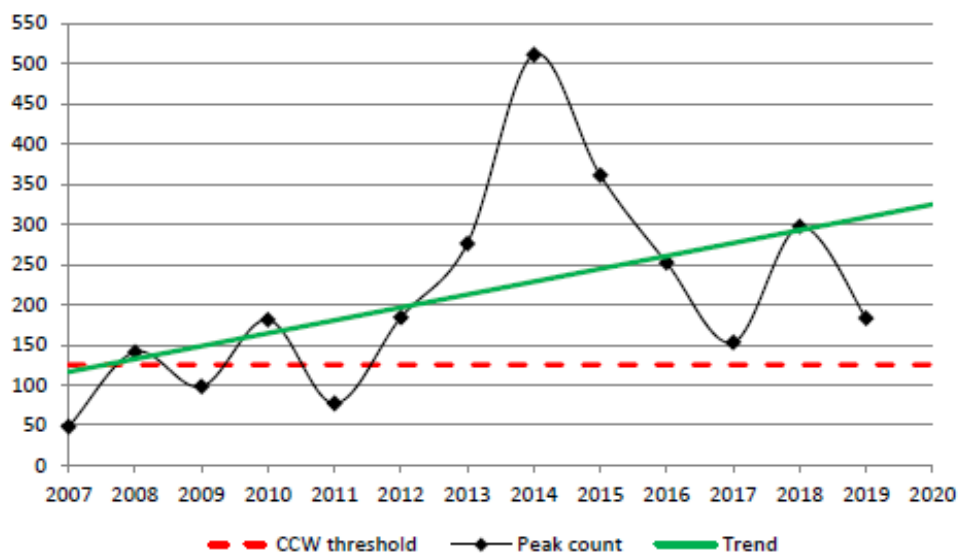


Figure 4-1: Medium-term trend of GCN peak counts on the R1 and R2 sites (2007 – 2019) (Oakwood Ecology, 2019).

4.7 Phase 1 Habitat Survey

- 4.7.1 The survey results are presented in the form of a map with the habitat types and boundary features marked which can be found at Drawing 1 (PEA.001).
- 4.7.2 Descriptions of the habitat types and boundary features are detailed below. Photographs can be found in Appendix B. Habitat descriptions are defined by broad habitat types (JNCC, 2010).

Habitats

Hardstanding

- 4.7.3 The site comprised only of a hardstanding tarmac within an existing car park area within the Brother's Industrial site.



Figure 4-2: hard standing within site boundary.

Species

Amphibians

- 4.7.4 Six waterbodies were located within 500m of the site boundary. These are all known to have GCN present, due to the statutory designated site Johnson Newt SAC and data records.
- 4.7.5 Drawing 2 indicates the location of each pond and shows a 500m buffer from the site.
- 4.7.6 Suitable terrestrial or aquatic habitat was not present within the site due to it comprising of hard standing only.

Reptiles

- 4.7.7 One record for grass snake was returned within the desk study data.
- 4.7.8 As the habitats on site provide negligible suitability for any reptile species, they will not be considered further within this report.

Bats

Roosting

- 4.7.9 No trees are set to be removed within the proposed works therefore it is anticipated there will be no impact to roosting bats and will not be considered further within this report.

Foraging/Commuting

- 4.7.10 Multiple records for bats were returned within the desk study data.
- 4.7.11 As the habitats within the site boundary, and within close proximity of the site are considered negligible to support foraging and commuting bats, they will not be considered further within this report.

Badgers

- 4.7.12 During the Phase 1 Habitat Survey, no badger setts were observed on- or within 30m of the site boundary. There were no signs of mammal paths through the surrounding habitat. As the site is considered sub-optimal to support badger, they will not be considered further within this report.

Otters

- 4.7.13 The habitats within the site boundary and within close proximity to the site are considered to provide negligible suitability for otters *Lutra lutra*. It is considered highly unlikely that the species will be absent from the site boundary. Therefore, this species is not considered any further within this report.

Water Voles

- 4.7.14 The habitats within and close proximity to the site provide negligible suitability for water voles *Arvicola amphibius*. It is considered to be highly likely that this species will be absent from the site boundary.

Other Mammals

- 4.7.15 No signs of other mammals were noted within the site boundary. Additionally, as the habitat dominated the site boundary is hard standing, it is not considered to support any mammal species. Therefore, they will not be considered further within this report.

Birds

- 4.7.16 There are no suitable onsite habitats that are suitable for breeding birds or wintering birds.
- 4.7.17 Multiple records for birds were returned within the desk study data, including red list species of BoCC.

Invasive species

- 4.7.18 No invasive species were noted during the Phase 1 Habitat Survey. Due to the likely absence of invasive species within the site boundary, they will not be considered further within this report.

Invertebrates

- 4.7.19 Due to the onsite habitats, there is negligible suitability for invertebrates within the site boundary. Therefore they will not be considered further within this report.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Designated Sites

Statutory Designated Sites

5.1.1 There were four international statutory designated sites within 10km of the site boundary. The closest of which is the Johnson Newt SAC which is located 170m to the east. There is a lack of suitable newt terrestrial habitat within the site boundary and limited connectivity for newts. Due to the lack of functionally linked habitats from the SAC sites to the site boundary, significant dispersal barriers and small scale nature of the works, **direct and indirect impacts are not anticipated.**

5.1.2 One statutory designated site for nature conservation was returned within 2km of the site boundary, Stryt Las a'r Hafod (SSSI), which is located 170m to the east. There is a lack of suitable newt terrestrial habitat within the site boundary and limited connectivity for newts. Due to the lack of functionally linked habitats, significant dispersal barrier and small-scale nature of the works, **direct and indirect impacts are not anticipated.**

Non-Statutory Designated Sites

5.1.3 There were five non-statutory designated sites within the 2km search radius, with the closest record being found over 500m from the site boundary. Due to the distance away from the site boundary, small scale nature of the works, and significant barrier in place (Ruabon Road) **a direct or indirect adverse impact is not anticipated.**

5.2 Habitats

Priority Habitats

5.2.1 The closest area of priority habitat is Open mosaic Habitat located 188m to the east. All other areas of priority habitat are located over 450m away from the site. Due to the small-scale nature of the works and significant barriers (Ruabon Road, Bangor Road and an active railway line) an **indirect or direct adverse impact is not anticipated.**

Site Habitats

5.2.2 Table 5.1 below summarises the habitat types within the site and outlines ecological importance and impacts.

Table 5.1: Habitat Types within the Site Boundary

Habitat Type	Area / Length	Ecological Importance	Proposed Extension Impact
Habitats			
Hardstanding	0.037ha	Negligible	Set to be built upon as part of the proposed works.

- 5.2.3 The current proposals involve the erection of a ground mounted warehouse within the existing yard are. Based on current proposals it is considered that there will be very limited impacts due to the site consisting of only hardstanding. In order to reduce the risk of impacts to protected species appropriate mitigation measures are recommended.

5.3 Species

Amphibians

- 5.3.1 GCN are listed as a European Protected Species under Annex IV of the European Habitat Directive. The animals and their eggs, breeding sites and resting places are protected by law. Therefore, it is an offence to do the following:

- Capture, kill, disturb or injure a GCN deliberately;
- Damage or destroy a breeding or resting place;
- Obstruct access to their resting or sheltered places;
- Possess, sell, control or transport live or dead newts, or parts of them; and
- Take GCN eggs.

- 5.3.2 Six permanent waterbodies were noted within 500m of the site boundary, at the time of the survey. All of these waterbodies contain known GCN populations that are monitored on a regular basis.

- 5.3.3 Under current proposals, works will be restricted to habitat with negligible suitability for GCN (hard standing tarmac, with no fissures). However, due to the close proximity of current GCN breeding ponds, the following recommendations should be adhered to, to further minimise any risks occurring:

- Works should be restricted to hard standing at all times. If current proposals change and any suitable GCN habitat (grassland, hedgerows, scrub) is set to be removed, or effected, a suitably qualified ecologist should be contacted for further advice.
- All construction works must take place during daylight hours as amphibians are more likely to be commuting at nights
- During the construction phase of the works, it is essential that no materials are stockpiled on site as this would create further suitable GCN habitat.
- Ensure no materials are stored on suitable GCN habitat (grassland, hedgerows, scrub).
- Where excavations/ trenches are excavated it should be ensured that they are not left open overnight to avoid amphibians falling into them and becoming entrapped. If trenches cannot be filled after the working day for whatever reason, an escape mechanism, such as a wooden plank, should be place in them at a 45-degree angle to serve as an escape mechanism to small animals, including amphibians.
- In the unlikely event that a GCN is noted during site works, all works must cease, and a suitably qualified ecologist must be contacted immediately.

5.3.4 Provided the above recommendations are adhered too, an **adverse impact to GCN is not anticipated.**

5.3.5 Other amphibians are not protected under the same legal protection as GCN; however, it is good practice to avoid causing harm to these species and following the recommendations above will ensure this.

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DRAWINGS

Drawing 1 - Phase 1 Habitat Map



-  Site Boundary
-  Hard Standing
-  Ponds within 500m



Heaton's
Planning Environment Design

PROJECT

VAUXHALL INDUSTRIAL ESTATE

DRAWING TITLE

PHASE 1 HABITAT PLAN

DATE

MARCH 2023



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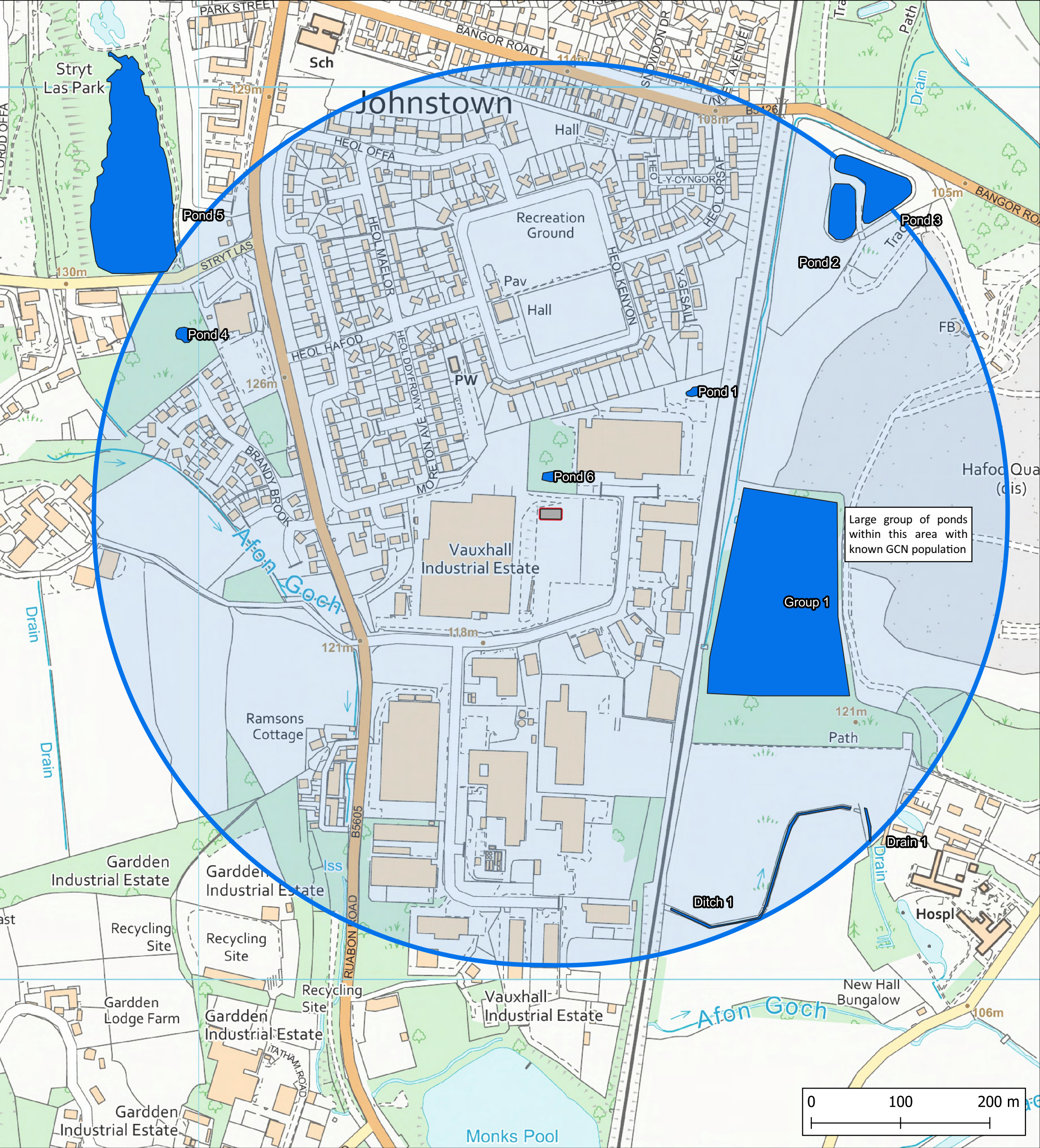
SCALE

1: 250 @ A3

STATUS

FINAL

Drawing 2 – Ponds within 500m Site Boundary



-  Ponds within 500m
-  500m Buffer
-  Site Boundary

Heatons

Planning Environment Design

PROJECT

VAUXHALL INDUSTRIAL ESTATE

DRAWING TITLE

PONDS WITHIN 500M OF THE SITE BOUNDARY

DATE	REFERENCE
FEB 2023	NEP-002-E (PEA.002)
	SCALE
	1: 4.000 @ A3
	STATUS
	FINAL

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Appendix

Appendix A - Wildlife Legislation

Badgers (*Meles meles*)

In the UK the relevant legislation pertaining to Badgers is the Protection of Badgers Act 1992 and the Wildlife and Countryside Act, 1981 (as amended). Under the Protection of Badgers Act it is an offence to:

- Wilfully kill, injure, take possession or cruelly ill-treat* a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill-treatment' of a Badger.

a sett is defined as 'any structure or place which displays signs indicating current use by a Badger', with 'current use' defined by Natural England under interim guidance as over the preceding few months prior to a likely interference/disturbance event.

Licences can be obtained from the SNCO for development activities that would otherwise be unlawful under the legislation.

Bats

All British bats are European protected species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats, including in particular any disturbance which is likely to:
 - impair their ability to survive, reproduce or to rear or nurture their young;
 - impair their ability to hibernate or migrate; or
 - significantly affect their local distribution or abundance.
- Damage or destroy a breeding site or resting place of a bat;
- Possess or control any live or dead specimen or anything derived from a bat;
- Sell, offer for sale, possess or transport a bat (live or dead, part or derivative) for the purpose of sale or advertise for buying or selling.

In addition, all British bats are listed under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended), which contains further provisions making it an offence to intentionally or recklessly:

- Damage, destroy or obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation.

Water Vole (*Arvicola amphibius*)

Water Voles are listed under the Priority Species under the UK Post-201 Biodiversity Framework and protected under the Wildlife and Countryside Act 1981 (as amended), making it illegal to:

- Intentionally kill, injure or take a Water Vole;
- Possess or control a live or dead Water Vole, or any part of a Water Vole;
- Intentionally or recklessly disturb, destroy or obstruct access to any place that Water Voles use for shelter or protection;
- Sell, offer for sale or advertise any live or dead Water Voles.

Otter (*Lutra lutra*)

Otters are a European protected species, listed under the Priority Species under the UK Post-201 Biodiversity Framework and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence to:

- Deliberately kill, injure or capture an Otter;
- Deliberately disturb Otters, including in particular any disturbance which is likely to:
 - impair their ability to survive, reproduce or to rear or nurture their young;
 - impair their ability to hibernate or migrate; or
 - significantly affect their local distribution or abundance.
- Damage or destroy a breeding site or resting place of an Otter;
- Possess or control any live or dead specimen or anything derived from an Otter;
- Sell, offer for sale, possess or transport an Otter (live or dead, part or derivative) for the purpose of sale or advertise for buying or selling.

In addition, Otters are listed under Schedule 5 of the Wildlife & Countryside Act 1981 (as

amended), which contains further provisions making it an offence to intentionally or recklessly:

- Damage, destroy or obstruct access to any structure or place which an Otter uses for shelter or protection; or
- Disturb an Otter while occupying a structure or place which it uses for that purpose.

Amphibians

All British amphibian species receive a degree of protection under the Wildlife & Countryside Act 1981 (as amended). The level of protection varies from protection from sale or trade only, as is the case with species such as Common Toad (*Bufo bufo*) and Smooth Newt (*Lissotriton vulgaris*), to full protection afforded to species such as Great Crested Newt (*Triturus cristatus*).

Great Crested Newt is a European protected species and as such receives full protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence to:

- Deliberately capture, injure or kill a Great Crested Newt;
- Deliberately disturb Great Crested Newts, including in particular any disturbance which is likely to:
 - impair their ability to survive, reproduce or to rear or nurture their young;
 - impair their ability to hibernate or migrate; or
 - significantly affect their local distribution or abundance.
- Deliberately take or destroy eggs of Great Crested Newts;
- Damage or destroy a breeding site or resting place of Great Crested Newts;
- Possess or control any live or dead specimen or anything derived from a Great Crested Newt;
- Sell, offer for sale, possess or transport a Great Crested Newt (live or dead, part or derivative) for the purpose of sale or advertise for buying or selling.

Reptiles

All reptile species are listed under the Priority Species under the UK Post-201 Biodiversity Framework and receive protection under the Wildlife & Countryside Act 1981 (as amended), making it illegal to:

- Intentionally kill or injure reptiles;
- Sell, offer for sale, possess or transport reptiles (live or dead, part or derivative)

for the purpose of sale or advertise for buying or selling.

In addition, due to their status as scarce species both Smooth Snake (*Coronella austriaca*) and Sand Lizard (*Lacerta agilis*) are European protected species, protected under the Conservation of Habitats and Species Regulations, 2017 (as amended). This affords them additional protection, making it illegal to:

- Deliberately capture Smooth Snakes or Sand Lizards;
- Deliberately disturb Smooth Snakes or Sand Lizards, including in particular any disturbance which is likely to:
 - impair their ability to survive, reproduce or to rear or nurture their young;
 - impair their ability to hibernate or migrate; or
 - significantly affect their local distribution or abundance.
- Damage or destroy a breeding site or resting place of Smooth Snakes and Sand Lizards.
- Possess or control any live or dead specimen or anything derived from a Smooth Snake or Sand Lizard.

Birds

All wild birds, their nests and eggs are protected throughout the breeding season (typically late February to late August inclusive) under the Wildlife and Countryside Act, 1981 (as amended). This legislation makes it an offence to (with certain limited exceptions and in the absence of a licence) intentionally:

- Kill or injure any wild bird;
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- Take or destroy the egg of any wild bird;
- It is also an offence to possess any live or dead wild bird or egg, or anything derived from a bird or egg;
- Restrictions on trade and advertising also apply.

Schedule 1 of the Wildlife & Countryside Act 1981 is a list of the nationally rare and uncommon breeding birds for which all offences carry special (i.e. greater) penalties. These species also benefit from additional protection whilst breeding, as it is an offence to disturb adults or their dependent young when at a nest.

The RSPB categorise British bird species in terms of conservation importance based on a number of criteria including the level of threat to a species population status. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern, being either globally threatened and / or experiencing a high level of

population decline (e.g. a reduction in breeding population size greater than or equal to 50% over the past 25 years or since 1969, when the first species assessment was made).

In addition, Birds are listed under Protection of Birds Act 1954 (as amended), which contains similar protection to Wildlife and Countryside Act 1981 (as amended).

Appendix B - Site Photographs



A view of the site and northern site boundary.



A view of the site and the northwest site boundary.



A view of the northern site with amenity grass verge, that is located north of the site.



A view of the western site boundary and grass mound located outside the site.



A view of Pond 6 located approximately 25m to the north of the site boundary.



A view of Pond 1 located to the northeast of the site boundary.