

Land North of 129 Croft Lane, Bury, BL9 8QH

UPDATED ECOLOGICAL SURVEY AND ASSESSMENT

December 2021

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Document Control

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SUMMARY

- i. This updated ecological survey and assessment presents the ecological, biodiversity and nature conservation status of the land to the north of 129 Croft Lane, Bury BL9 8QH. The assessment was requested in connection with proposals to develop the site to a nursery with associated parking area, forest school and outdoor play area.
- ii. This report presents the results of an updated desktop study and extended Phase 1 Habitat Survey carried out in July 2020. The scope of the survey undertaken is appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.
- iii. The site comprises hard-standing and gravel, colonising ruderal herbs and planted vegetation, rank grassland and bramble scrub.
- iv. The proposals will have no adverse effect on statutory or non-statutory designated sites for nature conservation.
- v. The site lies within the Roch River Valley and Wildlife Links and Corridors designation.
- vi. The habitats within the site do not provide any wildlife corridors or links and lie adjacent to roads and existing development at their northern, eastern, and southern boundaries. As such, it is considered that the habitats within the site do not contribute to the Wildlife Links and Corridors designation and the site does not provide wildlife links either north to south or west to east.
- vii. It is concluded that, provided the proposals are conducted in accordance with recommendations at **Section 5.0** of this report, the proposals will have no adverse effect on the Roch River Valley and Wildlife Links and Corridors designated land.
- viii. None of the habitats within the site are representative of Priority Habitat. No species-rich or semi-natural habitats are present within the site.
- ix. Japanese Knotweed and Indian Balsam, both plant species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected within the site; recommendations to eradicate the invasive species at the site is presented at **Section 5.3**.
- x. The young trees and shrubs within the site are suitable for use by nesting birds; measures for the protection of nesting birds are presented at **Section 5.4**.
- xi. No other protected species have been detected.
- xii. The recommendations in **Section 5.0** address all the mandatory measures and ecological recommendations to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.
- xiii. The proposals will secure an opportunity to implement beneficial measures such as habitat management and habitat creation that will safeguard habitats for wildlife such as birds and bats, with the aim of providing a net gain in biodiversity in accordance with the principles of the NPPF.
- xiv. It is concluded that the proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy. Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife associated with an educational development.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Studio KMA to carry out an ecological survey and assessment of land north of 129 Croft Lane, Bury, BL9 8QH (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 8128 0857. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (Source image: ESRI World Imagery).
- 1.1.2 The survey and assessment was requested in connection with a planning application develop the site to a nursery with associated parking area, forest school and external play area.

1.2 Scope of Works

- 1.2.1 The results of the previous ecological survey and assessment at the site are presented at *2016-352 Croft Lane, Bury: Ecological Survey and Assessment* (ERAP Ltd, 2016), hereafter the '2016 report'.
- 1.2.2 The findings of the previous report are included within the results of this updated report for ease of reference.
- 1.2.3 The scope of ecological works undertaken in July 2020 comprised:
- An updated desktop study for known ecological information at the site and the local area;
 - An updated Extended Phase 1 Habitat Survey and assessment;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including badger (*Meles meles*), bat species, bird species and reptiles;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required prior to the commencement of any development activities.

2.0 METHOD OF SURVEY

2.1 Desktop Study

- 2.1.1 The following sources of information and ecological records were consulted:
- MAGiC: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;

¹ In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no ponds within an unobstructed 500 metres of the site, and no ditches or watercourses within or in proximity to the site; there has therefore been no requirement to consider great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) as part of this assessment.

- b. The 2016 report (which includes results of a data search completed with Greater Manchester Local Records Centre);
- c. Greater Manchester Local Records Centre (GMLRC); and
- d. The Greater Manchester Biodiversity Action Plan (BAP).

2.2 Vegetation and Habitats

- 2.2.1 An updated Extended Phase 1 Habitat Survey of the site was carried out by Catie Haworth on 28th July 2020. The weather was overcast with occasional showers, a moderate breeze (Beaufort scale 4) and 14°C at midday. The conditions and time of year were favourable for the ecological survey.
- 2.2.2 A habitat and vegetation map was produced for the site and the immediate surrounding area at a scale of 1:500 (refer to **Figure 2**). The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.
- 2.2.4 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.
- 2.2.5 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.6 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 The survey area for badger covered the site (as annotated on **Figures 1 and 2**) and extended to accessible land within a radius of 50 metres from the site boundary. Private gardens / land were excluded from the survey.
- 2.3.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: surveys and mitigation for development projects* (Natural England, 2015).
- 2.3.3 The following signs of badger activity were searched for:
 - a. Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - b. Large spoil heaps outside sett entrances;
 - c. Bedding outside sett entrances;
 - d. Badger footprints;

- e. Badger paths;
- f. Latrines;
- g. Badger hairs on fences or bushes;
- h. Scratching posts; and
- i. Signs of digging for food.

2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Bat Species

- 2.3.5 No buildings or mature trees are present within the site; the presence of roosting bats is reasonably discounted.
- 2.3.6 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016). Reference has been made to the categories and descriptions / examples, presented at **Table 2.1**, below.

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats

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

Bird Species

- 2.3.7 Bird species observed and heard during the survey were recorded.
- 2.3.8 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

Great Crested Newt

- 2.3.9 In accordance with current Natural England guidance (Natural England, 2015), all ponds within an unobstructed 500 metres of a site should be considered for their suitability to support breeding great crested newts. The potential of the proposed development to impact upon any great crested newt population(s) whose breeding ponds are within 500 metres must be considered.

- 2.3.10 There are no ponds within an unobstructed 500 metres radius from the site boundary; no further surveys for amphibian species are necessary.

Reptile Species

- 2.3.11 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document '*Reptile Mitigation Guidelines*' (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined in **Table 2.2**, below.

Table 2.2: Important Habitat Characteristics for Reptiles

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

Water Vole and Otter

- 2.3.12 The site does not support any ditches, ponds or other suitable habitats for water vole and other fauna associated with such waterbodies. No waterbodies lie within 50 metres of the site boundary. Therefore, the presence of water vole and other riparian fauna is reasonably discounted. No further survey is required.

2.4 Survey and Reporting Limitations

- 2.4.1 The surveys were completed under suitable conditions and at a favourable time of year. No survey limitations were experienced.
- 2.4.2 All measurements have been either estimated whilst on site or measured using QGIS or internet-based mapping software (such as MAGiC Map and Google Earth).

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977) and *Guidelines for the Selection of Biological SSSIs* (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present have been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).
- 2.5.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2019) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species Regulations 2017*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value

for these species. The presence of habitats and/or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study

Designated Sites for Nature Conservation

- 3.1.1 The site has no statutory designation for nature conservation. One statutory and two non-statutory sites lie within one kilometre of the proposed development. Details of each designated site are provided in **Table 3.1**, below.
- 3.1.2 The site lies within a Site of Scientific Interest (SSSI) Impact Risk Zone for Ashclough SSSI and Nob End SSSI which are situated approximately 5.2 and 6.5 kilometres from the site, respectively. The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2020):
- a. Infrastructure: Airports, helipads and other aviation proposals;
 - b. Air pollution: Livestock and poultry units with floorspace greater than 500m², slurry lagoons greater than 4000m²; and
 - c. Combustion: General combustion processes greater than 50 megawatt energy input including energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works, other incineration / combustion.
- 3.1.3 The proposals do not meet these criteria, therefore further consultation with Natural England is not required.

Table 3.1: Designated Sites within One Kilometre of the Site

Name and Designation	OS Central Grid Reference	Distance and Direction from Site	Description
Statutory Sites			
Hollins Vale Local Nature Reserve (LNR)	SD 818 083	140 metres to the east	A farmland reserve comprising woodland and wetland which supports a diversity of plant and bird species.
Non-statutory Sites			
Hollins Vale Site of Biological Interest (SBI)	SD 818 085	200 metres to the east	Surrounds Hollins Brook and adjacent reservoirs and supports a diversity of plant and bird species.
Hollins Plantation SBI	SD 820 080	900 metres to the south-east	Comprises deciduous woodland and is part of the Hollins Vale LNR

- 3.1.4 Further consideration on potential impacts of the proposed development to statutory and non-statutory designated sites within the wider area are considered further at **Section 4.2**.

Local Planning Policy Designations

- 3.1.5 The site lies within the River Roch Valley Wildlife Link and Corridor. The suitability of this designation is considered further at **Section 4.2**, with reference to *Adopted Bury Unitary Development Plan OL5/2*

Development in River Valleys (Bury Council, 1997) and EN6/4 Wildlife Links and Corridors policies (Bury Council, 1997).

Protected and Notable Species

- 3.1.6 GMLRC hold no records of protected or notable species for the site. Details of the protected and notable species records within one kilometre are provided at **Table 3.2** below.

Table 3.2: Records of Protected and Notable Species from the Wider Area (updated 2020 results)

Group	Species	Notes (all measurements are approximate)
Amphibians	Common toad (<i>Bufo bufo</i>) PS	Nine records, the closest being 180 metres to the south-east.
Birds	Bullfinch (<i>Pyrrhula pyrrhula</i>) PS	Four records, the closest being 450 metres to the east.
	Dunnock (<i>Prunella modularis</i>) PS	Four records, the closest being 230 metres to the east.
	Grey partridge (<i>Perdix perdix</i>) PS	Two records, the closest being 340 metres to the south-west.
	House sparrow (<i>Passer domesticus</i>) PS	One record, 780 metres to the north-east.
	Kingfisher (<i>Alcedo atthis</i>) WCAs1	One record, 920 metres to the west.
	Lapwing (<i>Vanellus vanellus</i>) PS	Two records, the closest being 450 metres to the north-east.
	Linnet (<i>Linaria cannabina</i>) PS	Two records, the closest being 270 metres to the east.
	Little ringed plover (<i>Charadrius dubius</i>) WCAs1	One record, 480 metres to the north-east.
	Reed bunting (<i>Emberiza schoeniclus</i>) PS	Two records, the closest being 230 metres to the east.
	Song thrush (<i>Turdus philomelos</i>) PS	Three records, the closest being 420 metres to the east.
	Starling (<i>Sturnus vulgaris</i>) PS	One record, 500 metres to the north-east.
Fish	Brown trout (<i>Salmo trutta</i>) PS	One record 950 metres to the north, at the River Roch.
Mammals	Badger (<i>Meles meles</i>) PBA	One record of evidence of badger 850 metres from the site to the south-west.
	Bat species (Order <i>Chiroptera</i>) EPS, WCAs5 and GMBAP	Four records of activity, the closest being 520 metres to the west
	Daubenton's bat (<i>Myotis daubentonii</i>) EPS, WCAs5 and GMBAP	Three records of activity, the closest being 450 metres to the north-east.
	<i>Myotis</i> species EPS, WCAs5 and GMBAP	One record of activity 570, metres to the south-west.
	Noctule (<i>Nyctalus noctula</i>) EPS, WCAs5, PS and GMBAP	Three records of activity, the closest being 600 metres to the north-east.
	Common pipistrelle (<i>Pipistrellus pipistrellus</i>) EPS, WCAs5 and GMBAP	Twelve records of roosts, the closest being 50 metres to the north-east, and a further 29 records of activity within one kilometre.
	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>) EPS, WCAs5, PS and GMBAP	Two records of a activity, the closest being 500 metres to the north-east.
	Pipistrelle species EPS, WCAs5 and GMBAP	Five records of a roost the closest being 530 metres to the south-west and a further 8 records of activity.
	European water vole (<i>Arvicola amphibius</i>) WCAs5, PS and GMBAP	One record of presence 650 metres to the east.

Key:

EPS = European Protected Species under *The Conservation of Habitats and Species Regulations 2010* (as amended)

GMBAP = Greater Manchester Biodiversity Action Plan Priority Species

PBA = Legally protected under the *Protection of Badgers Act 1992*

PS = Priority Species, of principal importance for conservation, as listed under Section 41 of the *NERC Act 2006*

WCAs1 = Legally protected under Schedule 1 of the *Wildlife and Countryside Act 1981* (as amended)

WCAs5 = Legally protected under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended)

- 3.1.7 The presence of these protected and notable species present within the wider area is considered within this report.

2016 Report

- 3.1.8 The site is located in a suburban area at the southern extremity of Bury. The site comprised a hard-standing car park area, rank grassland, a slope leading towards the River Roch and former amenity grass verges.
- 3.1.9 Japanese Knotweed and Indian Balsam, both invasive species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), were present at the site.
- 3.1.10 The River Roch which lies beyond the western site boundary provides habitat of moderate quality for foraging and commuting bats. Otherwise the presence of protected species was reasonably discounted. No habitats within the site were considered suitable for use by nesting birds and therefore the presence of nesting birds at the site was reasonably discounted.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.2 hectare site is located in a suburban area at the southern extremity of Bury. The site comprises a hard-standing car park (**Photos 1 and 2**), gravelled areas with colonising and planted vegetation (**Photos 3 to 5**), rank grassland (**Photos 6 and 7**) including a slope leading towards the River Roch (**Photos 8 and 9**), colonising ruderal herbs and bramble scrub (**Photos 10 and 11**).
- 3.2.2 The northern site boundary is undefined and is adjacent to a gardening plot, beyond which is a medical centre and car park. The western boundary is undefined and supports rank grassland and a gravel path, beyond which is woodland and scrub; the land slopes downwards towards the River Roch (**Photos 12 and 13**), which lies 53 metres beyond the site's western boundary. The southern boundary lies immediately adjacent to the Roach Bank Public House and car park, beyond which lies existing development. The eastern site boundary is defined by temporary wire fencing and is associated with Croft Lane, beyond which lies existing housing.
- 3.2.3 For all habitat descriptions, refer to the Phase 1 Habitat Survey map appended at **Figure 2**. Photographs are appended at **Table 8.4**.

Hard-standing

- 3.2.4 A car park occupies 0.08 hectares of the site and comprises hard-standing with no associated vegetation.

Gravel with Colonising and Planted Vegetation

- 3.2.5 Two small verges of former amenity grasses that have since been gravelled over are associated with the hard-standing car park within the site. One area is associated with the pavement at Croft Lane and another is associated with a lamp post in the centre of the car park.
- 3.2.6 The vegetation at the two verges is characterised by very locally abundant Field Horsetail (*Equisetum arvense*) and Cock's-foot (*Dactylis glomerata*), locally frequent Creeping Thistle (*Cirsium arvense*) and Wavy Bitter-cress (*Cardamine flexuosa*).
- 3.2.7 A third area of gravel occupies land between the Roach Bank Public House and the car park and comprises colonising and planted vegetation.
- 3.2.8 The vegetation is characterised by frequent and very locally abundant Perennial Sow-thistle (*Sonchus arvensis*), frequent and locally abundant Common Ragwort (*Senecio jacobaea*), False Oat-grass (*Arrhenatherum elatius*), Smooth Sow-thistle (*Sonchus oleraceus*) and Lesser Trefoil (*Trifolium dubium*).

with very locally abundant Cypress Spurge (*Euphorbia cyparissias*), Rosebay Willowherb (*Chamerion angustifolium*) and occasional and very locally abundant Colt's-foot (*Tussilago farfara*).

- 3.2.9 The vegetation is not characteristic of any NVC community. Plant species lists are appended at **Tables 8.1** and **8.2**.

Rank Grassland, Colonising Ruderal Herbs and Bramble Scrub

- 3.2.10 The rank grassland within the site is not managed and occupies the northern and western edges of the site, including the western slope that leads to the River Roch.
- 3.2.11 The rank grassland is characterised by constant and frequent False Oat-grass, Cock's-foot and Yorkshire-fog (*Holcus lanatus*), frequent and very locally abundant Mugwort (*Artemisia vulgaris*), Lesser Burdock (*Arctium minus*) and Greater Burdock (*A. lappa*), frequent and locally abundant Creeping Thistle, frequent Indian Balsam (*Impatiens glandulifera*) and very locally abundant Japanese Knotweed (*Fallopia japonica*).
- 3.2.12 Vegetation has colonising the northernmost portion of the hard-standing car park forming an area of sparse colonising ruderal herbs with vegetation representative of the rank grassland as described above.
- 3.2.13 The bramble scrub occupies the south-westernmost corner of the site and extends outside the boundary. The vegetation is characteristic of the rank grassland and has developed into dense scrub with constant and dominant Bramble, occasional and locally frequent Hawthorn (*Crataegus monogyna*) shrubs and a shrub of Garden Privet (*Ligustrum ovalifolium*).
- 3.2.14 The rank grassland and colonising ruderal herbs has similarities with an *MG1 False Oat-grass – Cock's-foot* community of the NVC (Rodwell, 1992). The Bramble scrub has affinities with the *W24 Bramble – Yorkshire-fog* underscrub community of the NVC (Rodwell, 1992).
- 3.2.15 A plant species list is appended at **Table 8.3**.

Invasive Plant Species

- 3.2.16 Japanese Knotweed (**Photos 14** and **15**) and Indian Balsam, both invasive species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), are present at the site. It is an offence to cause the spread of these species in the wild. Further guidance is described in **Section 5.3**.

3.3 Animal Life

Badger

- 3.3.1 No setts or signs of badger were detected during the survey.
- 3.3.2 No evidence of badger was observed within the site or its surrounds and the habitats within the site are of poor suitability for use by foraging badger. The presence of badger is reasonably discounted.

Bat Species

Habitat Assessment for Commuting and Foraging Bats

- 3.3.3 The habitats within and immediately surrounding the site are generally of poor suitability for use by foraging or commuting bats; the well-lit hard standing which comprises the majority of the site will not support a diversity of invertebrate prey species.
- 3.3.4 Habitats in the wider area and within 53 metres of the site (i.e. the River Roch), are considered to have moderate suitability for commuting and foraging bats in accordance with the criteria listed in **Table 2.1**. This is considered further at **Section 4.4** below.

Bird Species

- 3.3.5 One grey heron (*Ardea cinerea*) was detected flying over the site during the survey, no other birds were detected using the site.
- 3.3.6 The habitats at the site are of low suitability for use by nesting birds. The young trees and bramble scrub support features suitable for use by nesting passerine (perching) birds.
- 3.3.7 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) whilst they are breeding. This is considered further at **Section 4.4**, below.

Reptiles

- 3.3.8 The site is currently in use as a car park.
- 3.3.9 The hard standing and vegetated margins within the site provide poor quality habitat for sheltering, basking and hibernating reptiles. The site supports an even topography and the homogenous vegetation supports little variation in its physiognomy.
- 3.3.10 The species-poor habitats within the site are reasonably unlikely to support a large population or a variety of invertebrate prey. The site is not adjacent or linked to any areas of favourable habitat for reptile species, and there are no records of reptile for the site or the wider area. The presence of reptiles within the site is reasonably discounted and no further survey is required.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 In accordance with *Unsworth, Croft Lane, Preliminary Site Plan, Dwg. No. UCL-KMA-XX-XX-DR-A-9011 Rev. P1* (Studio KMA, 2021), hereafter referred to as the 'proposed layout', it is proposed to develop the site to a nursery with associated parking area, forest school and external play area.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site are evaluated at **Section 4.3**, and the presence of protected and notable species is considered at **Section 4.4**.
- 4.1.3 Impacts upon the habitats within (and surrounding) the site, and upon the protected and notable species associated with the site, are quantified and assessed at **Section 4.5**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 As habitats within the site are not complementary to any designated nature conservation sites in the wider area and as there are no wildlife corridors connecting the site to these areas, any adverse impact on any statutory or non-statutory sites is reasonably discounted.
- 4.2.2 The site lies within the River Valley and Wildlife Links and Corridors designation associated with the River Roch. The site is small in size (0.2 hectare) and comprises habitats which are not complementary to the River Valley and Wildlife Links and Corridor designation such as hard-standing, rank grassland, gravel with planted and colonising vegetation and Bramble scrub.
- 4.2.3 Further, the site is bound by existing developments to its north, south and east (comprising a medical centre, public house and road); the site does not provide (of itself) any links to habitats to its north or south, or west or east.

- 4.2.4 It is considered that the site does not contribute to the wildlife links associated with the River Roch and does not provide any favourable or significant wildlife links across its area.
- 4.2.5 The habitats to the west of the site, comprising a 53 metre wide area of woodland and scrub between the site and the River Roch, will act as wildlife links which may contribute to the overall suitability of the River Roch as a wildlife link and corridor. Suitable measures for the protection of these habitats during the proposed construction period are presented at **Section 5.2**.
- 4.2.6 Whilst it is not considered that the site contributes to the River Valley and Wildlife Links and Corridors designations, the following policy points are relevant to the proposed development of the site:
- 'Within the River Valleys, new buildings or the change of use of existing buildings or the change of use of land will not be permitted. The only exceptions considered acceptable will be those where the development would not lead to the division of the open parts of the valleys into sections and it falls within the terms below: ... that the development represents limited infilling to an established valley settlement or industrial area' (Bury Council, 1997)*
- 4.2.7 It is considered that the proposed development of the car park will not lead to the division of the open parts of the valleys and represents limited infilling to an established valley settlement.
- 4.2.8 In relation to EN6/4 – Wildlife Links and Corridors:
- 'The Council will seek to consolidate and, where appropriate, strengthen wildlife links and corridors, and will not permit development which would adversely affect identified areas. In particular, the Council will seek to ensure that new development within or adjacent to identified links or corridors contributes to their effectiveness through the design, landscaping and siting of development proposals and mitigation works, where appropriate.'* (Bury Council, 1997).
- 4.2.9 The habitats within the site do not contribute to the value of the wildlife link and corridor associated with the River Roch.
- 4.2.10 In accordance with proposed layout, an area of undeveloped land which lies in the River Valley and Wildlife Links and Corridors is available for ecological enhancement. Appropriate enhancements will lead to an increase in the biodiversity value of the land in association with the River Valley and Wildlife Links and Corridors designated land; suitable enhancements are recommended at **Section 5.6**, below.
- 4.2.11 It is concluded that, provided the recommendations present at **Section 5.0** are adhered to, the proposals will have no negative impact upon the River Valley and Wildlife Links and Corridors or any designated sites in the wider area. Further, the recommendations presented in this report will secure ecological enhancements for these areas as a consequence of the proposed development.

4.3 Vegetation and Habitats

- 4.3.1 None of the habitats within the site are of significant interest in terms of their plant species composition. None of the habitats present are representative of semi-natural habitat. No vegetative communities are present within the site, the vegetation present is common, widespread and typical of the geographical area and conditions present. No Priority Habitats are present within the site. The site is considered to be of negligible ecological value.
- 4.3.2 Japanese Knotweed and Indian Balsam, both invasive species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) are present within the site. As such, it is illegal to cause the spread of these species in the wild. Measures for the eradication of these species as part of the proposed development are presented at **Section 5.3**.

4.4 Protected Species and Other Wildlife

- 4.4.1 The River Roch which lies beyond the western site boundary provides habitat of moderate quality for foraging and commuting bats. Recommendations relating to the incorporation of habitats for roosting bats at the site are presented at **Section 5.4**.
- 4.4.2 The young trees and shrubs provide favourable foraging and nesting habitat for the species of birds detected within the site and the wider area via the records search. Consideration of birds (including protection of breeding birds and recommended enhancements for Priority Species) are presented at **Section 5.5** of this report.
- 4.4.3 Otherwise the presence of protected species is reasonably discounted.

4.5 Assessment of Impacts

- 4.5.1 Inappropriate construction techniques and / or unsupervised dumping or storage of materials within the River Roch Wildlife Corridor could lead to direct negative impacts to the River Roch Wildlife Corridor. Recommendations for the protection of the Wildlife Corridor during the construction phase of the proposed development are presented at **Section 5.2**.
- 4.5.2 In the absence of suitable precautionary measures and mitigation, the proposed development may, as a consequence of an unsuitable lighting regime, have an adverse impact on the function and integrity of the Wildlife Corridor associated with the River Roch and its associated flora and fauna.
- 4.5.3 Recommendations for the suitable use of lighting at the site are presented at **Section 5.4** of this report.
- 4.5.4 The proposals present an opportunity to enhance the value of the River Valley and Wildlife Links and Corridors with appropriate management and landscape planting. The proposals also present an opportunity to enhance the wildlife potential of the site for foraging and commuting bats, Priority Species of bird associated with the habitats present within the site and for hedgehog by the planting of native species of trees and shrubs and by incorporating bat boxes and bird boxes into the design of the site.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

- 5.1.1 These recommendations aim to ensure that the development is implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF), local planning policy and best practice.
- 5.1.2 In accordance with Chapter 15, paragraph 175 point 'd' of the NPPF, when determining planning applications, local planning authorities should encourage opportunities to incorporate biodiversity improvements in and around developments, especially where this can secure measurable net gains for biodiversity.
- 5.1.3 Where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified, as required by the NPPF and other relevant planning documents.
- 5.1.4 All recommendations are appropriate to the geographical area, the habitats in the wider area, the wildlife present in the local area (and likely to use the site post-construction) and take into consideration the end use of the site as an educational facility.

5.2 Protection of Existing Vegetation

- 5.2.1 During the construction phase, temporary protective demarcation fencing will be used to protect the shrubs to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.
- 5.2.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012).

Protection of River Roch

- 5.2.3 The section of the River Roch running adjacent to the site should be protected during the construction and operational phase through implementation of best practice. Mitigation measures will be discussed and agreed with the Environment Agency. In particular, the following Pollution Prevention Guidelines (PPG) will be adhered to:
- a. PPG1: Basic good environmental practices (Environment Agency, 2013);
 - b. PPG5: Works in, near or over watercourses (Environment Agency, 2014);
 - c. PPG6: Construction and demolition sites (Environment Agency, 2012); and
 - d. PPG7: Operating refuelling sites (Environment Agency, 2011).

5.3 Invasive Species

- 5.3.1 All areas affected by Japanese Knotweed at the site must be treated in accordance with current Environment Agency recommendations.
- 5.3.2 It is recommended that all areas of Indian Balsam within the site are treated, in particular the area of retained land within the River Valley and Wildlife Links and Corridors.
- 5.3.3 It is recommended that a specialist Invasive Species contractor is contacted, and the preparation of an Invasive Species Mitigation Plan is recommended for the whole site.

5.4 Bats

Lighting

- 5.4.1 Paragraph 125 in Chapter 11 (conserving and enhancing the natural environment) of the National Planning Policy Framework (NPPF) states:

"By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation".

Construction Phase

- 5.4.2 Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within a Construction Environment Management Plan (CEMP), or similar.

Development Lighting Design

- 5.4.3 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the River Valley designated land, the Wildlife Links and Corridors designated land, the River Roch, areas of ecological enhancement and any landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.

5.4.4 The lighting scheme will be designed with reference to current guidance, namely:

- a. *Artificial lighting and wildlife. Interim Guidance: Recommendations to help minimise the impact of artificial lighting.* (Bat Conservation Trust, 2014); and
- b. *Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

Enhancing Habitats for Roosting Bats

5.4.5 It is recommended that the development incorporates the installation of a commercially available bat access panel at the new buildings.

5.4.6 The bat access panel should be sited at least four metres above ground level, ideally facing or close to areas of landscape planting or existing linear features. The access panel should not be positioned over windows or doorways where bat droppings may become a nuisance. Once the development layout has been finalised, an ecologist should advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology (www.nhbs.com) or Wild Care Shop (www.wildcareshop.com) and are presented at **Insert 1**:



Insert 1: Example of commercially available bat access panels.

5.5 Birds

Protection

5.5.1 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive (Natural England, 2015).

5.5.2 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

Enhancing Habitats for Nesting Birds

House Sparrow

5.5.3 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as halving in rural areas, and dropping by 60% in towns and cities since the mid-1970's (RSPB, 2018).

5.5.4 The installation of one house sparrow terrace nest box is recommended at the proposed new development. The house sparrow terrace nest box will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that nest boxes should ideally be sited

facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. An example of a suitable house sparrow bird box is given below at **Insert 2**:



Insert 1: Schwegler 1SP House Sparrow Nesting Terrace

- 5.5.5 Such bird boxes are available from the NHBS (www.nhbs.com) or Wild Care (www.wildcare.co.uk). ERAP (Consultant Ecologists) Ltd will advise on the siting of bird boxes.

5.6 Enhancement and Management of Retained Habitats and Landscape Planting

Enhancement and Management of Retained Habitats

- 5.6.1 It is recommended that the retained area of land within the River Valley and Wildlife Links and Corridors is brought into active management for biodiversity and to promote the longevity of the habitat. A Habitat Management Plan would be prepared to include the following:
- Specification of the removal/control and safe disposal of invasive species such as Indian Balsam;
 - Planting of low maintenance wildflower grassland;
 - Creation of dead wood habitat piles for colonisation by invertebrates, fungi and small mammals including hedgehog (a Priority Species); and
 - Inclusion of trellis at the plot boundary fences (on the aspect associated with the retained land and not the proposed building) and the planting of climbing plants such as Ivy, *Lonicera*, *Jasminum*, Climbing Hydrangea (*Hydrangea anomala*) etc.
- 5.6.2 It is accepted that the wildflower grassland planted at the slope will not be accessible for maintenance, however the connectivity of the River Valley and Wildlife Links and Corridors designated land will not be affected by an absence of maintenance. It is concluded that an absence of maintenance will allow the wildflower planting to naturally succeed to self-seeded trees and shrubs.

Landscape Planting

- 5.6.3 It is recommended that the landscape planting within the site is composed from native species and species known to be of value for the attraction of wildlife.
- 5.6.4 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented at **Table 5.1**, below.

Table 5.1: Suitable Native Species for Tree and Shrub Planting

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Gelder Rose

- 5.6.5 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.
- 5.6.6 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds.
- 5.6.7 For further plants suitable for the attraction of pollinators please refer to the *Perfect for Pollinators Plant List* (Royal Horticultural Society, 2012). It is recommended that the selection of plant species at the site ensures that a variety of flowering species are available throughout the year.

6.0 CONCLUSION

- 6.1 This updated ecological appraisal has demonstrated that the proposed development at the site is feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework.
- 6.2 It is possible to implement reasonable actions for the protection and long-term conservation of fauna such as roosting bats, nesting birds and commuting/foraging bats associated with the site.
- 6.3 Measures to conserve the habitat connectivity through the site are entirely feasible
- 6.4 Development at the site will provide an opportunity to secure ecological enhancement for fauna typically associated with suburban areas such as breeding birds and roosting bats.

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8.0 APPENDIX: TABLES, PHOTOGRAPHS AND FIGURES

8.1 Plant Species Lists

Table 8.1: Plant Species Composition, Frequency and Abundance for Gravel with Colonising Vegetation at Former Amenity Verges

Scientific Name	Common Name	DAFOR	% Cover
Woody Species			
<i>Acer campestre</i>	Field Maple sapling	O	<1%
Herb Species			
<i>Artemisia vulgaris</i>	Mugwort	O	<1%
<i>Bellis perennis</i>	Daisy	O	<1%
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	LF	2%
<i>Cirsium arvense</i>	Creeping Thistle	LF	5%
<i>Dactylis glomerata</i>	Cock's-foot	VLA	5%
<i>Epilobium hirsutum</i>	Great Willowherb	O	<1%
<i>Epilobium montanum</i>	Broad-leaved Willowherb	O	<1%
<i>Equisetum arvense</i>	Field Horsetail	VLA	10%
<i>Euphorbia cyparissias</i>	Cypress Spurge	O/VLA	1%
<i>Galium aparine</i>	Cleavers	O	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	O	<1%
<i>Senecio jacobaea</i>	Common Ragwort	O/LA	2%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Trifolium repens</i>	White Clover	O/LF	2%
<i>Urtica dioica</i>	Common Nettle	O	<1%

¹**Key to DAFOR:** D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

Table 8.2: Plant Species Composition, Frequency and Abundance for Gravel with Colonising and Planted Vegetation at South-west corner of Site

Scientific Name	Common Name	DAFOR	% Cover
Woody Species			
<i>Acer campestre</i>	Field Maple sapling	O	1%
<i>Betula pendula</i>	Silver Birch sapling	O	<1%
<i>Ligustrum ovalifolium</i>	Garden Privet	VLA	2%
Herb Species			
<i>Alchemilla mollis</i>	Garden Lady's-mantle	O/LA	1%
<i>Arrhenatherum elatius</i>	False Oat-grass	F/LA	5%
<i>Centranthus ruber</i>	Red Valerian	LA	2%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VLA	2%
<i>Dactylis glomerata</i>	Cock's-foot	LA	2%
<i>Epilobium hirsutum</i>	Great Willowherb	LA	1%
<i>Euphorbia cyparissias</i>	Cypress Spurge	VLA	2%
<i>Geranium</i> sp	Non-native Geranium species	LA	1%
<i>Holcus lanatus</i>	Yorkshire-fog	O/LA	2%
<i>Impatiens glandulifera</i>	Indian Balsam	O/LA	1%
<i>Lapsana communis</i>	Nipplewort	O/LA	1%
<i>Melilotus officinalis</i>	Ribbed Melilot	VLA	2%
<i>Persicaria bistorta</i>	Common Bistort	LF	<1%
<i>Rubus fruticosus</i> agg.	Bramble	LA	2%
<i>Rumex crispus</i>	Curled Dock	O	1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O/LA	1%
<i>Senecio jacobaea</i>	Common Ragwort	F/LA	5%

Scientific Name	Common Name	DAFOR	% Cover
<i>Sonchus arvensis</i>	Perennial Sow-thistle	F/VLA	10%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	F/LA	10%
<i>Taraxacum officinale</i> agg.	Dandelion	O	1%
<i>Trifolium dubium</i>	Lesser Trefoil	F/LA	2%
<i>Trifolium medium</i>	Zigzag Clover	LA	1%
<i>Tussilago farfara</i>	Colt's-foot	O/VLA	2%
<i>Urtica dioica</i>	Common Nettle	O	<1%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

Table 8.3: Plant Species Composition, Frequency and Abundance for Rank Grassland, Colonising Ruderal Herbs and Bramble Scrub

Scientific Name	Common Name	DAFOR	% Cover
Woody Species			
<i>Betula pendula</i>	Silver Birch sapling	O	<1%
<i>Crataegus monogyna</i>	Hawthorn	O/LF	<1%
<i>Ligustrum ovalifolium</i>	Garden Privet	O/LF	<1%
<i>Prunus</i> sp.	Cherry species sapling	R	<1%
<i>Salix cinerea</i>	Grey Willow	O	<1%
Herb Species			
<i>Alchemilla mollis</i>	Garden Lady's-mantle	O	<1%
<i>Arctium lappa</i>	Greater Burdock	F/VLA	1%
<i>Arctium minus</i>	Lesser Burdock	F/VLA	5%
<i>Arrhenatherum elatius</i>	False Oat-grass	F*	30%
<i>Artemisia vulgaris</i>	Mugwort	F/VLA	10%
<i>Calystegia sepium</i>	Hedge Bindweed	LA	<1%
<i>Centranthus ruber</i>	Red Valerian	O/LA	1%
<i>Cerastium fontanum</i>	Common Mouse-ear	O	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VLA	5%
<i>Cirsium arvense</i>	Creeping Thistle	F/LA	15%
<i>Cirsium vulgare</i>	Spear Thistle	VLF	<1%
<i>Dactylis glomerata</i>	Cock's-foot	F*	20%
<i>Epilobium hirsutum</i>	Great Willowherb	VLA	<1%
<i>Fallopia japonica</i>	Japanese Knotweed	VLA	10%
<i>Festuca rubra</i>	Red Fescue	O/VLA	5%
<i>Galium aparine</i>	Cleavers	LF	<1%
<i>Geranium robertianum</i>	Herb-Robert	O	<1%
<i>Heracleum sphondylium</i>	Hogweed	O	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	F*	20%
<i>Impatiens glandulifera</i>	Indian Balsam	F	10%
<i>Juncus effusus</i>	Soft-rush	O	<1%
<i>Lapsana communis</i>	Nipplewort	O	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	O	5%
<i>Melilotus officinalis</i>	Ribbed Melilot	O	<1%
<i>Persicaria bistorta</i>	Common Bistort	O	<1%
<i>Phalaris arundinacea</i>	Reed Canary-grass	O/LA	1%
<i>Plantago lanceolata</i>	Ribwort Plantain	LF	<1%
<i>Plantago major</i>	Greater Plantain	O	<1%
<i>Prunella vulgaris</i>	Selfheal	VLF	1%
<i>Ranunculus repens</i>	Creeping Buttercup	LA	1%
<i>Rubus fruticosus</i> agg.	Bramble	O/VLA	5%
<i>Rumex acetosa</i>	Common Sorrel	VLF	<1%

<i>Rumex obtusifolius</i>	Broad-leaved Dock	F/LA	1%
<i>Senecio jacobaea</i>	Common Ragwort	O/LA	10%
<i>Sisymbrium officinale</i>	Hedge Mustard	VLF	<1%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	O	<1%
<i>Stachys officinalis</i>	Betony	O	<1%
<i>Stellaria media</i>	Common Chickweed	VLA	<1%
<i>Symphytum officinale</i>	Common Comfrey	O/LA	1%
<i>Taraxacum officinale</i> agg.	Dandelion	LA	<1%
<i>Trifolium dubium</i>	Lesser Trefoil	VLF	1%
<i>Trifolium pratense</i>	Red Clover	O/LA	<1%
<i>Trifolium repens</i>	White Clover	LA	<1%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	VLF	<1%
<i>Tussilago farfara</i>	Colt's-foot	O/VLA	2%
<i>Urtica dioica</i>	Common Nettle	LA	<1%
<i>Vicia sepium</i>	Bush Vetch	O/LA	2%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

Table 8.4: Table of Photographs



Photo 1: Hard-standing car park



Photo 2: Hard-standing car park



Photo 3: Gravel at former amenity verge with colonising ruderal herbs



Photo 4: Gravel at former amenity verge with colonising ruderal herbs



Photo 5: Gravel at south-western corner with planted and colonising vegetation



Photo 6: Rank grassland



Photo 7: Rank grassland



Photo 8: Rank grassland on western slope



Photo 9: Rank grassland on western slope



Photo 10: Bramble scrub



Photo 11: Bramble scrub



Photo 12: River Roch (image from 2016 report)



Photo 13: River Roch (image from 2016 report)



Photo 14: Stand of Japanese Knotweed



Photo 15: Stand of Japanese Knotweed (right), colonising ruderal herbs and hard standing in site (centre and left)

8.2 Figures

Figure 1: Aerial Image of the Site and its Surroundings



Figure 2: Phase 1 Habitat and Vegetation Map

