



PRELIMINARY ECOLOGICAL APPRAISAL

FOR

PROPOSED STOR GENERATORS

AT

BRIDGE ROAD, WREXHAM

109191

16 JULY 2020

Prepared For

St Land Holdings Limited

Prepared By

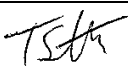
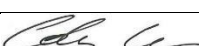
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EXECUTIVE SUMMARY

Site Address	Bridge Road, Wrexham
Grid Reference	SJ381495
Site Area	Approximately 0.6 hectares
Current Site Use	Vacant
Proposed Development	STOR Generators
Adjacent Site Use	Active industrial premises to east and west
Designated Sites	No ecological designations were identified within or adjacent to the site. The closest identified ecological designation is Wrexham Industrial Estate Wildlife Site, located approximately 200 m south-east of the site.
Habitat Features	The site is dominated by young Alder woodland, part of which has recently been felled and is beginning to regenerate. Two watercourses run along the site margins, whilst a hedgerow forms the northern site boundary. Other habitats comprise tall-sward grassland and tall ruderal vegetation at the site margins. The site is likely to provide suitable habitat for a number of protected species including foraging bats, Great Crested Newt (in their terrestrial phase), nesting birds, and potentially reptiles and Otter.
Conclusions & Recommendations	Woody habitats, including the young woodland and hedgerow, should be retained where possible. The grassland and watercourses along the site margins should be retained and protected with appropriate buffers. Safeguards are provided for Great Crested Newt prior to any site clearance within the vegetated areas, under a licence from Natural Resources Wales. Clearance safeguards are also recommended for nesting birds and Otter, in the form of sensitive clearance or pre-clearance surveys. Ecological enhancements could be provided through favourable ecological management of retained habitats, new planting and specific faunal enhancements such as bird and bat boxes.

1.0 INTRODUCTION

1.1. Background

Ensafe has been commissioned by St Land Holding Limited, to provide a Preliminary Ecological Appraisal to support a planning application for the construction of new STOR Generators and associated works on land at Bridge Road Wrexham, to be referred to hereafter as “the site”.

The Preliminary Ecological Appraisal was undertaken in line with methodology set out by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). The assessment included a desk study and an Extended Phase 1 Habitat Survey.

1.2. Objectives

The purpose of the Preliminary Ecological Appraisal was to identify:

- the major habitat types present on the site and within the surrounding area;
- evidence/potential for legally protected and notable species to be present;
- potential ecological constraints associated with the proposals;
- whether additional ecological surveys are likely to be required;
- the need for mitigation and compensation; and,
- opportunities for enhancement of the natural features identified on the site and habitat creation.

1.3. Proposed Development

The development proposals include the construction of new STOR generators and associated works.

1.4. Site Description

The site is a vacant derelict area of land in Wrexham Industrial Estate, which comprises young trees and regenerating trees following recent felling along with ruderal vegetation. Two watercourses lie along the margins of the site, which converge in the south-east corner of the site. The site is bounded by Bridge Road North to the north, a small area of woodland adjoining Redwither Road to the south, and active industrial premises to the east and west.

1.5. Confidentially

Ensafe has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Ensaf; a charge may be levied against such approval.

2.0 METHODOLOGY

2.1. Desk Study & Consultation

The desk study involved conducting database searches for statutory and non-statutory designated sites and priority habitats within a 1 kilometre (km) search radius. A search for statutory European designated sites within 10 km of the site was also conducted. The perimeter of the site was used as the border for all searches. The following resources were used:

- Multi-Agency Geographical Information for the Countryside (Magic) website;
- Ordnance Survey (OS) mapping (to identify potentially notable habitats e.g. ponds);
- A data request to Cofnod for protected and notable species and designated sites;
- Aerial photography (e.g. Google mapping); and,
- Priority habitats and species derived from section 41 of the natural environment and rural communities act (NERC Act, 2006).

2.2. Planning Policy

As well as being under the remit of national legislation with regards to species and habitat protection, local plans often have personalised policies regarding the environment which are used to assess the suitability of a development. The proposed development has been assessed in regard to the following policies from Wrexham County Borough Council's adopted Unitary Development Plan 1996-2011.

Policy EC4 sets out that proposals should provide for the 'conservation and management of hedgerows, trees, orchards, woodland, wildlife and other natural landscape and water features'. The policy also requires new planting and protection to valuable trees, important hedgerows and ancient woodland.

Policy EC6 relates to proposals within or close to 'sites of biodiversity interest' and sets out a mitigation hierarchy for such cases.

In addition, Policy SP15 of the emerging Local Development Plan 2013-2028 relates to the natural environment, and requires that proposals protect, conserve and enhance the natural environment, including designated sites, protected and priority species, and natural landscape features such as trees, hedges and woodland.

Further, Local Planning Guidance (LPG) Note 29 relates to Employment Development and Nature Conservation within Wrexham Industrial Estate, which is therefore of relevance to the site.

2.3. Habitat Survey

The Extended Phase 1 Habitat Survey of the site was carried out on the 8th July 2020 by suitably qualified ecologist Tom Staton BSc (Hons) MSc MCIEEM. Weather conditions during the survey were overcast, 14 to 16 °C with light wind. The field survey comprised a walkover of the land and habitats present, with a classification of the habitats to Phase 1 Habitat Survey standard (Joint Nature Conservation Committee, 2010). The Extended Phase 1 Habitat Survey provides information on the habitats in the survey area and identifies actual or potential presence of legally protected species, or otherwise notable species/habitats in or where appropriate, adjacent to the site

Plant species occurrence on site was estimated using the DAFOR scale: D = Dominant, A = Abundant, F = Frequent, O = Occasional, and R = Rare. An Extended Phase 1 Habitat Map is available at an appropriate scale as appended. Accompanying target notes and photographs are included within **Appendix I**. A plant species list can be found in **Appendix II**.

2.4. Bats

During the Extended Phase 1 Habitat Survey, any structures or trees that had the potential to be used by bats for roosting were assessed. Any linear features on site, with good habitat connectivity to the wider landscape and potential foraging areas, were also assessed. Habitats were classified into categories depending on potential roost features and habitat connectivity. These categories (adapted from Collins 2016) can be found in **Appendix III**.

2.5. Great Crested Newt

Habitats, including any waterbodies, were assessed for their potential to support great crested newt (*Triturus cristatus*). In addition, a search for ponds within 250 metres (m) was undertaken at an appropriate scale using an OS Map. Where possible, these ponds were assessed for their suitability to support great crested newt by undertaking a Habitat Suitability Index (HSI) Assessment.

2.6. Habitat Survey

The potential of the site to support legally protected or national/local priority species (Natural Environment and Rural Communities (NERC) Act 2006) was assessed from field observations carried out during the site walkover and combined with the results of the desk study. The site was also inspected for indications of the presence of protected species. These included:

- the presence of nesting habitat for breeding birds, such as mature trees, dense scrub, hedgerows and buildings and/or field margins suitable for ground nesting birds, and evidence of bird nesting including bird song, old nests, faecal marks etc.;
- evidence of badger (*Meles meles*), including setts, runs, snuffle holes and hairs on site and 30 m outside the site boundary;
- scrub/grassland mosaic and potential hibernation sites for reptiles; and,
- assessment of water bodies, such as ditches and streams as to their potential to support water vole (*Arvicola amphibius*) and/or otter (*Lutra lutra*); and,
- an assessment of the site's potential to contain notable flora and invertebrates.

The likelihood of occurrence of any protected and/or invasive species is ranked according to habitat suitability and an evaluation of existing data. The criteria can be found in **Table 2.1**, below.

Table 2.1: Habitat Evaluation Criteria

Rank	Evaluation
Negligible	Presence highly unlikely based on habitat suitability and local records.
Low	Some limited potential but presence unlikely, or likely to be sporadic and of low importance to population.
Moderate	Some potential for presence based on habitat suitability and/or local records, but a significant population is unlikely.
High	Habitat is highly suitable, and/or local records suggest presence is likely.
Confirmed Presence	Presence confirmed by visual observation or field signs (such as droppings or footprints) during survey.

2.7. Impact Assessment Methodology

The CIEEM Ecological Impact Assessment (EclA) guidelines (2018) recommend that the value or potential value of an ecological resource or feature should be determined within a defined geographical context. They recommend that the following frame of reference be used (or adapted to meet local circumstances):

- international and European;
- national;
- regional;
- county (or metropolitan);
- local; and,
- site.

The purpose of this assessment is to identify whether sufficient information is available to accurately assess the nature conservation value of a site for a given protected species/habitat or whether more comprehensive surveys are necessary.

The assessment of ecological impacts follows the process described by CIEEM (2018), which can be summarised as:

- identification of the range of potential impacts that may arise resulting from the proposed development;
- consideration of the systems and processes in place to avoid, reduce or mitigate the possible effects of these impacts;
- assessment of the residual impacts, following consideration of the success of avoidance and mitigation; and,
- where necessary, identification of compensation required to offset any significant residual effects; and,
- identification of the opportunity for ecological enhancement and habitat creation associated with the proposals.

2.8. Constraints

Ecological surveys are limited by a variety of factors which affect the presence of flora and fauna (e.g. climatic variation, season and species behaviour). A lack of evidence of a protected species during a survey does not mean that the species is absent; hence the survey also records and assesses the suitability of habitats to support such species. The time frame in which the survey is implemented provides a snapshot of activity within the survey area and cannot necessarily detect all evidence of use by a species. The survey was completed in July 2020. The timings of the habitat surveys did not present any issues when classifying habitats in this circumstance. The surveyor undertaking the habitat surveys was suitably skilled at classifying habitats and identifying plants outside of the core flowering season.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. The Phase 1 Habitat Survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable or not visible due to a number of factors including the time of year the survey was carried out.

The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area and any direct evidence within the survey area. It should not be taken as providing a full and definitive survey of any protected species group. It is only representative of the time the survey was carried out. Desk study data is not likely to be exhaustive and it is therefore possible that protected species not identified during the data search do in fact occur within the vicinity of the site.

3.0 SURVEY FINDINGS

3.1. Aerial Photography & OS Maps

OS maps show the site as comprising woodland or scrub with watercourses bounding the site to the east and south, converging in the south-east. Aerial photography appears to show young woodland or scrub covering much of the site, with some more open areas. Historical imagery on Google Earth appears to show clearance of the woody vegetation between 2007 and 2009, following which the woody vegetation appears to have largely re-established by the most recent imagery in 2018.

3.2. Designated Sites

The nearest identified statutory ecological designation was the River Dee SSSI, located approximately 3 km east of the site, whilst the boundary of an associated SAC lies 3.4 km east of the site. Two other SSSIs and a Ramsar Site were identified within 5 km of the site boundary.

The details of these sites can be viewed below in **Table 3.1**, and the location of the sites can be seen in **Appendix IV**.

Table 3.1: European/International Statutory Sites Designated for Ecology

Site	Designation	Approx Distance	Details
Afon Dyfrdwy (River Dee)	SSSI	3.0 km	Nationally important transition through a range of river types, supporting important wetland fauna.
River Dee and Bala Lake	SAC	3.4 km	Notified for watercourse habitat, Atlantic Salmon <i>Salmo salar</i> , Floating Water-plantain <i>Luronium natans</i>
Sontley Marsh	SSSI	4.2 km	No information available
Vicarage Moss, Midland Meres & Mosses Phase 2	SSSI Ramsar Site	4.6 km	No information available Diverse range of wetland habitats, supports a number of rare wetland plant and invertebrate species.

The closest identified non-statutory ecological designation to the site is Wrexham Industrial Estate Wildlife Site, which lies approximately 200 m south-east of the site boundary at its closest point. The Wildlife Site comprises a mosaic of habitats including species-rich grassland and ancient woodland. Two other designations were identified within 1 km of the site, comprising ancient woodlands approximately 470 and 570 m north-west and south-west of the site, respectively.

3.3. Ecological Connectivity

Consultation with Natural England's 'Magic Map' website identified one priority habitat within 1 km of the site boundary, comprising broadleaved woodland according to the National Forest Inventory. The majority of the site itself, save for the northern extreme, is identified as such. This inventory is largely derived from aerial imagery.

The location of the priority habitats in relation to the site boundary can be found in **Appendix IV**.

Connectivity between the on-site and off-site habitats is limited given the predominantly built-up context of the surroundings. However, there is connectivity to a small off-site woodland to the south, while beyond Redwither Road to the south there is a further small area of woodland. The watercourses along the margins of the site feed into a larger watercourse which flows through Wrexham Industrial Estates Wildlife Site to the south-east.

3.4. Habitats

The approximate location of each habitat within the scope of works is shown on the Extended Phase 1 Habitat map (appended), with accompanying photos (**Appendix I**). A plant species list can be found in Appendix II. The habitats identified during the survey were:

- Scrub / woodland
- Young woodland
- Hedgerows
- Neutral grassland
- Tall ruderal vegetation
- Watercourses

In addition, a small area of woodland was recorded offsite adjacent to the south of the site.

3.4.1. Scrub / woodland

The northern part of the site is dominated by recently felled woody vegetation, which has been cut to near ground level with arisings deposited at the margins of the felled area. The stumps have been left in place, from which the vegetation is beginning to regenerate. Alder *Alnus glutinosa* was identified as the dominant woody species. A group of three young Wild Cherries *Prunus avium* (approximately 8 m tall) have been retained towards the north of the habitat. This habitat featured a high proportion of bare ground (up to around 50%), particularly in the south, with colonising ruderal vegetation comprising species typical of recently disturbed conditions (see Appendix II). No herbaceous species was noted to be dominant. The ground was noted to be level and compacted with some remnants of concrete.

This habitat is considered to be of **low to moderate** ecological value.

3.4.2. Young woodland

The southern part of the site was recorded to comprise young woodland, which presumably extended through the northern part of the site prior to felling. This habitat also extended along the eastern and western margins of the felled area. The woodland was recorded to be approximately 8 m in height, with a very dense structure. The canopy was dominated by Alder, over abundant Bramble *Rubus fruticosus* agg., with a range of other shrub species recorded such as Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa* and Elder *Sambucus nigra*. The field layer was recorded to either be dominated by bare ground and mosses where the canopy cast a heavy shade, or by dense Common Nettle *Urtica dioica*, Bramble and Cleavers below breaks in the canopy. Woodland ground flora species were very sparse, and largely comprised typical colonists of secondary woodland such as Wood Avens *Geum urbanum*, Wood Dock *Rumex sanguineus*, Lords-and-Ladies *Arum maculatum*, while Ramsons *Allium ursinum* was recorded along the bank of the watercourse to the south. The latter species is generally considered to be an ancient woodland indicator (according to most county lists), and is more abundant in the offsite woodland to the south (see below).

The young woodland within the site is likely to qualify as UK Priority Habitat, however it is a poor quality example of the habitat type, being young in nature with poor structural diversity and a very limited cover of woodland ground flora species.

This habitat is considered to be of **moderate** ecological value.

3.4.3. Hedgerow

A hedgerow was recorded along the northern boundary of the site, following the fence line along Bridge Road North, and was recorded to be approximately 6 m high with no evidence of any regular or recent management. The hedgerow was dominated by Blackthorn, with Hawthorn, Wild Cherry *Prunus avium*, Dog-rose *Rosa canina* agg., and a young Pedunculate Oak *Quercus robur* (approximately 8 m tall) towards the north-eastern end. A gap of approximately 1 m width was recorded just to the south-west of this Oak. The hedgerow does not appear to be important in terms of wider connectivity, as it is discontinuous to the north-east and south-west.

A narrow (0.5 to 1 m wide) verge was recorded on the northern side of the hedgerow, which did not appear to be regularly managed and was dominated by False Oat-grass *Arrhenatherum elatius* with a range of other typical verge species (see Appendix II).

This habitat is considered to be of **low to moderate** ecological value.

3.4.4. Neutral grassland

A grassy strip was recorded along the eastern margin of the site, which appears to comprise a former trackway. There was no evidence of any recent management, such that the sward was uniformly tall and dominated by False Oat-grass, but with a reasonably good diversity of other species including Common Knapweed *Centaurea nigra*, Ribwort Plantain *Plantago lanceolata* and Tufted Vetch *Vicia cracca* (see Appendix II). Creeping Thistle *Cirsium arvense* formed locally abundant stands.

This habitat is considered to be of **low to moderate** ecological value.

3.4.5. Tall ruderal vegetation

The southern end of the grassland described above meets a gate, beyond which the vegetation was recorded to abruptly change to a tall ruderal community. Grasses were much scarcer in this habitat, and Creeping Thistle was recorded to be dominant, with a range of other dicotyledon species recorded including Broad-leaved Dock *Rumex obtusifolius*, Bramble and Great Willowherb *Epilobium hirsutum*.

This habitat is considered to be of **low** ecological value.

3.4.6. Watercourses

Two watercourses were recorded within the site, at the eastern and southern margins, which converge in the south-east corner of the site and then pass into a culvert beneath Redwither Road to the south. The eastern watercourse enters the site via a culvert from Bridge Road North to the north of the site, and is fed by an offsite pond to the north. The eastern watercourse was contained within steep 2 to 4 m high banks, with a base width of approximately 1 m. At the time of survey, the watercourse supported a rapid southward flow of water, with an estimated maximum depth of approximately 20 cm. The banks of the watercourse were heavily vegetated and dominated by Common Nettle, with Great Willowherb, Hogweed *Heracleum sphondylium* and Hemlock Water-dropwort *Oenanthe crocata*. The channel itself appeared to support little aquatic vegetation, although it could not be safely accessed owing to the steep, high banks.

The southern watercourse was contained within 2 to 3 m high, moderate to steeply sloped banks with a base width of approximately 1 m. The channel supported a rapid eastward flow, with an estimated maximum depth of 20 cm. The lower banks were noted to be built with concrete. The upper banks were sparsely vegetated due to the heavy shade cast by the surrounding woodland, although some Ramsons was recorded. The channel itself supported a low coverage of aquatic vegetation, although it could not be safely accessed.

The survey was undertaken after a period of very wet weather, therefore it is possible that the watercourses are seasonally dry.

This habitat is considered to be of **moderate** ecological value.

3.4.7. Offsite woodland

A small area of woodland was recorded adjacent to the south of the site. The woodland comprised widely spaced mature trees, including Pedunculate Oak, Weeping Willow *Salix babylonica* and Hybrid Black Poplar *Populus x canadensis*. The field layer was recorded to be largely bare, with some Common Nettle and locally abundant Ramsons. Tall ruderal vegetation and dense shrubs were recorded below gaps in the canopy, with species recorded including Common Nettle, Bramble, Hawthorn and Blackthorn.

This habitat is considered to be of **moderate** ecological value.

3.5. Protected Species

3.5.1. Overview

The legislation that relates to the protected species referred to in this section is included in **Appendix V**. Additional species groups have been considered as part of this report, however, only those that occur within the same geographical range and where suitable habitats are present within or adjacent to the site are included below.

3.5.2. Bats

3.5.1.1. Bats Roosting

No features with bat roosting potential were recorded within the site. The trees within the site were recorded to be young in nature, and are therefore unlikely to support any such features.

3.5.1.2. Bat Foraging & Commuting

A number of bat species have been recorded in the vicinity of the site, according to data received by Cofnod, including Daubenton's Bat *Myotis daubentonii*, Brandt's Bat *M. brandtii*, Whiskered Bat *M. mystacinus*, Brown Long-eared Bat *Plecotus auritus*, Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *P. pygmaeus*. The habitats within the site, particularly the young woodland and watercourses, are likely to provide favourable foraging habitat for these bat species, albeit the habitats are limited in extent. These habitats, and particularly the eastern watercourse, provide some connectivity between the offsite pond area to the north and woodland to south, and could therefore be used as a commuting route. The hedgerow along the northern margin of the site is small in extent and does not connect to offsite habitats, and is therefore unlikely to be of significance for foraging or commuting.

The site is considered to be of moderate potential value to foraging and commuting bats at the **local level**.

3.5.3. Great Crested Newt

Recent records of this species were received from Cofnod relating to the offsite pond to the north (approximately 30 m from the site boundary), whilst the pond is identified as a breeding pond for Great Crested Newt within Local Planning Policy Guidance Note No. 29. The records received from Cofnod relate to a torch and bottle-trapping survey in spring 2012, which identified four adults. This pond was subject to a Habitat Suitability Index (HSI) during the Phase 1 survey, from the adjacent road. The pond is fed from a ditch to the north, and outflows into the watercourse along the eastern site margin via a culvert beneath Bridge Road North. The area around the pond comprises mown grassland set within a fenced enclosure. No other ponds were identified within 250 m of the site based on a search of OS maps, albeit a number of Great Crested Newt breeding ponds within the wider Wrexham Industrial area are highlighted within Appendix 1 of Local Planning Guidance note 29.

Table 3.2. Habitat Suitability Index (HSI) for the offsite pond.

Factor	Assessment	Score
Geographic location	Optimal	1
Pond area	> 2,000 m ²	N/A
Permanence	Likely to never dry based on water depth	0.9
Water quality	Likely to be good, taking a cautious approach, with a good and reasonably diverse coverage of vegetation	1
Shade	90%	0.4
Waterfowl	Absent (no evidence of waterfowl impact)	1
Fish	Unknown, assumed absent taking a cautious approach	1
Pond count	Nine ponds within 1 km (according to OS maps)	0.9

Terrestrial habitat	Poor (limited opportunities within 250 m)	0.33
Macrophyte cover	90%	0.9
Overall score		0.77

The HSI for the offsite pond was assessed as between 0.7 and 0.8, which represents 'good' suitability for Great Crested Newts. The pond is separated from the site by Bridge Road North, but a culvert passes beneath the road into the site, therefore the road represents a very minor barrier to dispersal.

The young woodland and grassland habitats within the site represent suitable terrestrial habitat for Great Crested Newts, although the suitability of the woodland is limited in places by the sparse field layer cover. The regenerating vegetation is considered to be of low suitability at present due to the low vegetation cover, but has future potential as the habitat redevelops (under a do-nothing scenario). The watercourses are highly unlikely to be suitable for breeding as they supported a rapid flow at the time of survey.

The site is deemed to have **high potential** to support great crested newts, and its value is at the **local level**.

3.5.4. Reptiles

Grass Snake *Natrix natrix* has been recorded from the offsite pond to the north of the site, according to data received from Cofnod. Slow-worm *Anguis fragilis* and Adder *Vipera berus* have also been recorded further afield, to the south of the site. The majority of the site is considered unlikely to support reptiles, being either too shaded in the case of the young woodland, or with insufficient vegetation cover in the regenerating woodland. The grassland along the eastern margin of the site is considered to have some reptile potential, particularly as part of a larger home range for Grass Snake, although its potential importance is limited by its small extent.

The site is deemed to have **moderate potential** to support reptiles, which is limited to the grassland habitat, and its potential value is at the **local level**.

3.5.5. Birds

A high number of bird species have been recorded in the wider vicinity of the site, according to data received from Cofnod, although no records were returned for the site itself. A number of common bird species typical of suburban habitats were incidentally recorded during the Phase 1 survey, but none are included on the RSPB's lists of species of conservation concern. The young woodland and hedgerow within the site represent suitable breeding bird habitat, although they are unlikely to be of high significance to any species of high conservation importance.

The site is deemed to have **high potential** to support breeding birds (in areas of woody vegetation), and is considered to be of moderate value for birds at the **local level**.

3.5.6. Badger

No Badger records were returned within 500 m of the site from Cofnod, although the species has been recorded further afield. No evidence of Badger was recorded during the Phase 1 survey. The site conditions were noted to be characterised by damp, flat and compacted soils, which are not typically favoured by Badger for setting or foraging.

The site is therefore deemed to have **negligible potential** for badgers.

3.5.7. Dormouse

No Dormouse records were returned for the vicinity of the site by Cofnod. The woody habitats within the site are likely to be too small in extent to support a viable Dormouse population, while there is limited connectivity to larger offsite habitats. The offsite woodlands adjacent to the north and south of Redwith Road, to the south of the site, are each less than 1 ha in extent, which again are unlikely to be sufficient in

size to support a viable population. The larger areas of woodland to the south-east within Wrexham Industrial Estate Wildlife Site are more separated from the site by existing buildings and hardstanding.

The site is therefore deemed to have **negligible potential** for Dormouse.

3.5.8. Otter

Recent records were returned for Otter relating to the offsite pond, approximately 30 m north of the site. This species is likely to use the watercourses along the site margins for commuting, although the watercourses are unlikely to be of foraging significance given their shallow depth. The tall-sward grassland and young woodland within the site could also be used by Otters as part of a much wider territory should they be present, as they provide dense vegetation cover with very low disturbance. However, the presence of holts is considered unlikely due to the scarcity of large tree root systems, the lack of naturally available holes in rock crevices and the compacted nature of the ground.

The site is deemed to have **high potential** for Otters as part of the wider habitats, specifically along the watercourses and potentially daytime resting places in the young woodland and grassland, and its value is at the **local level**

3.5.9. Water Vole

No records were returned for Water Vole within the vicinity of the site. The watercourse along the eastern site margin appears to provide some potentially suitable opportunities for this species. The southern watercourse is however highly unlikely to support Water Vole, because of its concrete lower banks and the scarcity of grassy vegetation on its banks.

The site is deemed to have **low potential** for Water Vole, confined to the eastern watercourse and its near vicinity, and its potential value is at the **local level**.

3.5.10. Hedgehog

The nearest Hedgehog record to the site was located approximately 250 m to the west of the site boundary, recorded in 2017, according to data received from Cofnod. The habitats within the site could be used by Hedgehog as part of a larger home range.

The site is deemed to have **moderate potential** for hedgehogs and its potential value is at the **local level**.

3.5.11. Flora

No rare or scarce plant species were recorded within the site during the Phase 1 habitat survey. A number of plant records were returned from Cofnod for the vicinity of the site, although none appear to relate to the site itself. The closest record was for Great Yellow-cress *Rorippa amphibia*, located adjacent to the north-east of the site within the vicinity of the offsite pond. The species could therefore occur along the watercourse which runs along the eastern site margin, although it was not recorded during the Phase 1 habitat survey. The next closest record was for Grass Vetchling *Lathyrus nissolia*, in the vicinity of the offsite pond to the north-east. This species could potentially occur in the grassland in the east of the site. Both of these species are widespread nationally but are of local interest.

The site is deemed to have **low potential** to support notable floral assemblages and the ecology value is at the **local level**.

3.5.12. Invertebrates

A number of invertebrate species were returned from Cofnod for the area around the site, although none appear to relate to the site itself. The closest records were for the UK Priority Species Dingy Skipper *Erynnis tages* and Grizzled Skipper *Pyrgus malvae*, which are represented by numerous records mainly to the east of the site. The site is considered unlikely to support Dingy Skipper because of the lack of its favoured foodplants. However, foodplants of Grizzled Skipper were recorded within the site, such as Agrimony

Agrimonia eupatoria, Creeping Cinquefoil *Potentilla reptans* and Bramble. These were mainly located in the grassland along the eastern site margin. Grizzled Skipper occurs in a range of habitat types including unimproved grassland and woodland clearings, therefore it could potentially occur within the site.

During the Phase 1 habitat survey, a number of common butterfly species were incidentally recorded in the grassland along the eastern margin, including Small White *Pieris rapae*, Small Skipper *Thymelicus sylvestris* and Meadow Brown *Maniola jurtina*. This habitat provides a number of plant and floral resources for invertebrates. The young woodland and re-establishing vegetation within the site is however of poor floristic and structural diversity, and is likely to be of limited interest for invertebrates.

The site is deemed to have **moderate potential** to support notable invertebrates (UK Priority Species) and its value is at the **local level**.

3.5.13. Invasive Species

Two specimens of Himalayan Balsam *Impatiens glandulifera*, which is an invasive species listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended), were recorded near the centre of the tall ruderal vegetation, in the south-east corner of the site.

4.0 CONCLUSIONS & RECOMMENDATIONS

4.1. Development Proposals

The site is proposed for development to provide new STOR generators and associated works.

The Wrexham industrial estate (WIE), in which the site is located, is an important site at the European level, for great crested newts, and at the domestic level. As such, the WIE is the subject of specific policy requirements laid out in LPG 29 (LPG 29 – Employment Development and Nature Conservation). These require mitigation measures to be imposed with development proposals.

4.2. Statutory / Non Statutory Designated Sites

The closest identified statutory designated site is located approximately 3 km from the site, and is well separated by existing developments and infrastructure. The non-statutory Wrexham Industrial Estate Wildlife Site is located approximately 200 m from the site boundary. Although this Wildlife Site is reasonably well separated from the site by a road and existing developments, the watercourses along the site margins flow into a watercourse which enters the Wildlife Site. Recommendations in respect of the watercourses are set out below.

Subject to the implementation of these safeguards, the proposed works are not anticipated to have a likely significant impact on the designated sites.

4.3. Habitats

4.3.1. Evaluation & Potential Impacts

The habitats within the site are considered to be of importance at the local level. The young woodland is likely to qualify as the UK Priority Habitat lowland mixed deciduous woodland, but is considered to be a poor quality example of the habitat type. The offsite woodland is a somewhat better example of the habitat, featuring mature trees along with more open areas, and a higher coverage of Ramsons (an ancient woodland indicator species). This woodland will be buffered by retained habitat within the site. The grassland within the eastern margin of the site is reasonably diverse botanically and includes species indicative of a calcareous influence. This habitat will be retained under the proposals. An invasive species, Himalayan Balsam, was recorded within the tall ruderal vegetation in the south-east of the site. This area will be unaffected under the proposals.

4.4.1.1. Recommendations

The loss of habitats is not considered likely to significantly affect the conservation status of species or floral assemblages. Nevertheless, it is recommended that woody habitats are retained where possible, and that the grassland habitat in the eastern margin of the site is retained. Its open character should also be maintained, by avoiding excessive landscape planting, to preserve its floristic diversity. The watercourses along the site margins should be retained with a suitable buffer, and measures should be put in place to minimise the risk of pollution during construction and upon operation of the proposals. The eastern bank of the eastern watercourse should be kept open, avoiding any substantial landscape planting, to preserve its dense field layer cover and the associated invertebrate interest.

4.4. Protected Species

4.4.1. Bats

4.4.1.2. Evaluation & Potential Impacts

No potential bat roost features were identified within the site. The site could be of local importance to foraging and commuting bats and the partial loss of habitats could have a minor impact.

4.4.1.3. Recommendations

It is recommended that woody vegetation is retained where possible, and reinforced with planting of native woody species. This should aim to maintain north-south connectivity between the pond area to the north and the woodland to the south of the site, for example via the western bank of the eastern watercourse.

4.4.2. Great Crested Newt

4.4.3.1. Evaluation & Potential Impacts

Records for this species were returned for a pond approximately 30 m to the north of the site. As such, there is considered to be a reasonable likelihood of the species occurring within the site in its terrestrial phase. In the absence of mitigation, the proposals could potentially lead to the killing or injury of Great Crested Newts in contravention of the Conservation of Habitats and Species Regulations 2010.

4.4.3.2. Recommendations

The young woodland and grassland habitats should be retained where possible. To avoid causing mortality or injury to Great Crested Newt, safeguards are likely to be required prior to and/or during site clearance under licence from Natural Resources Wales. Recommendations would include for erection of GCN fencing, depending on the final details and timing of the proposals, this could also include measures such as a translocation exercise. In addition, compensatory habitat is likely to be required under the terms of a licence. This could include enhancement of the retained woodland habitat through selective thinning to promote ground vegetation, which is currently very sparse in places, along with enhancement measures to the retained watercourse corridors at the site and the provision of refuges and hibernacula.

In addition, it is recommended that an ecological enhancement and management plan document be prepared for the site at the appropriate planning stage in order to detail the measures proposed and ensure that adequate mitigation and enhancement measures are proposed, including in line with the requirements set out within LPG29.

4.4.3. Reptiles

4.4.3.3. Evaluation & Potential Impacts

The site's potential to support reptiles is likely limited to the grassland in the east of the site, which appears to be retained under the proposals.

4.4.3.4. Recommendations

It is recommended that the grassland habitat is maintained as an open area, avoiding excessive landscape planting, to maintain potentially suitable reptile habitat. In addition, it is recommended that an ecological enhancement and management plan document be prepared for the site at the appropriate planning stage in order to detail the measures proposed and ensure that adequate mitigation and enhancement measures are proposed, including in line with the requirements set out within LPG29

4.4.4. Birds

4.4.2.1. Evaluation & Potential Impacts

The site is considered unlikely to be of importance to any birds of conservation concern, but does provide suitable foraging and nesting habitat for a range of common species occurring in the local area. Impacts on birds are therefore likely to be minor in ecological terms, but could lead to breaches of the Wildlife and Countryside Act 1981 (as amended) in the absence of mitigation.

4.4.2.2. Recommendations

It is recommended that precautions are taken regarding removal of potential nesting habitat (i.e. woody vegetation) to avoid destroying bird nests, in order to aid compliance with the Wildlife and Countryside Act 1981 (as amended). Woody vegetation should be retained where possible, with provision of new native planting where practicable.

4.4.5. Otter and Water Vole

4.4.4.1. Evaluation & Potential Impacts

Otter and Water Vole could make use of the watercourses along the site margins, and the former species has been recently recorded in the local area. The watercourses appear to be retained and buffered under the proposals. In addition, Otters could also potentially be present within the young woodland within the site.

4.4.5.1. Recommendations

Safeguards in relation to the watercourses as set out above will minimise the risk of impacts to these species. In addition, it is recommended that a pre-commencement survey for Otter couches or other use of the site is undertaken prior to any further clearance of the young woodland habitat. The provision of enhancement measures within the watercourse corridors and associated adjacent habitats has potential to benefit these species should they be present.

4.4.6. Hedgehog

4.4.5.2. Evaluation & Potential Impacts

The habitats within the site could form part of a wider home range for Hedgehog, but the loss of habitats of this extent are unlikely to significantly impact any local populations.

4.4.5.3. Recommendations

It is recommended that permeability for Hedgehogs is maintained through the site by avoiding close-board fencing, or by using Hedgehog cut-outs if necessary. The retained/enhanced buffer habitats will continue to provide opportunities for this species.

4.4.7. Invertebrates

4.4.5.4. Evaluation & Potential Impacts

The main area of potential invertebrate interest is considered to comprise the grassland along the eastern site margin, which is reasonably floristically diverse and could support Grizzled Skipper. The grassland appears to be retained under the proposals.

4.4.5.5. Recommendations

As set out above, it is recommended that the open character of the grassland is maintained by avoiding excessive planting. An appropriate management regime, such as annual rotation cutting of the grassland, could enhance this habitat for invertebrates.

4.5. Summary of Recommendations

Table 4.1 provides a summary of the recommended mitigation measures and further surveys.

Table 4.1: Summary of Recommended Mitigation Measures and Further Surveys

Species	Recommended Mitigation
---------	------------------------

Habitats, reptiles, invertebrates	Retention of woody habitats (woodland, hedgerows) where possible. Grassland and watercourses should be retained with avoidance of any substantial landscape planting to maintain their open character. Pollution prevention measures in relation to the watercourses. Preparation of ecological enhancement and management plan document to ensure the details of the latest scheme are taken into account and adequate mitigation is provided (including reflecting the requirements of LPG29).
Bats	Habitat connectivity should be maintained and enhanced for foraging and commuting bats, particularly north-south across the site.
Great Crested Newt	Safeguards prior to and during construction under licence, enhancement of retained habitat including selective thinning and provision of refuges and hibernacula.
Birds	Precautions during clearance of woody vegetation. Retention of woody vegetation where possible, provision of landscape planting.
Otter and Water Vole	Watercourse safeguards, pre-commencement survey for Otter couches.
Hedgehog	Maintain permeability of the site.

4.6. Ecological Enhancements

A number of habitat enhancements are proposed in accordance with the National Planning Policy Framework (NPPF) (2019) which states that development should: “*promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*”

4.6.1. Ecological Management

Favourable ecological management could be introduced into retained habitats, such as the young woodland and grassland. Woodland management could aim to promote structural and botanical diversity through selective thinning, with management arisings used to create deadwood piles for invertebrates. Grassland management could aim to maintain and improve structural and plant diversity through rotational annual cutting, which would improve the availability of microhabitats for invertebrates and potentially provide basking areas for reptiles. The presence of invasive plant species, such as Himalayan Balsam, should also be monitored with control and removal where appropriate.

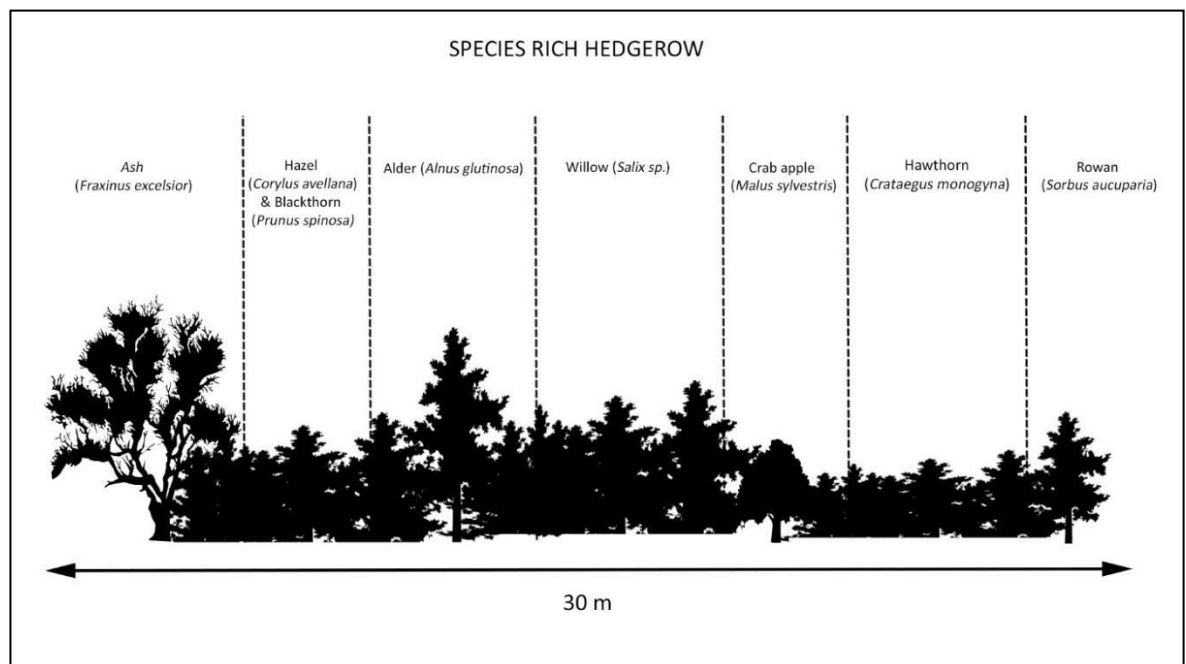
4.6.2. Native Planting Scheme

It is recommended that new native planting be provided at the site in order to benefit wildlife.

4.6.3. Hedgerows

It is recommended that the existing retained hedgerows are managed in a way that lets them grow taller and thicker than they currently are. This will increase the area’s attractiveness for commuting bats and breeding birds. The aim with hedgerow planting should be to create a species-rich hedgerow, which is defined as a hedgerow that has five or more native woody species in a 30 m length. It is recommended that gaps are planted with the native species outlined within **Figure 4.2**.

Table 4.2: Species Rich Hedgerow



4.6.4. Bird Boxes

Where possible it is recommended that the potential for provision of bird boxes and associated measures at the site be investigated. Bird boxes could be implemented throughout the development (Table 4.3). Suitable areas include the surrounding hedgerows or incorporated within the proposed tree planting on site. The bird

boxes below provide valuable and safe nesting space for declining species in the UK, such as the house sparrow (*Passer domesticus*), and song thrush (*Turdus philomelos*).

Table 4.3: Suggested Bird Boxes

Bird Box Specification	Photograph
1B Schwegler Nest Box Height 23 cm Diameter 16 cm Weight 3.6 kg Material Schwegler Woodcrete Available in a range of sizes to attract different species. 32 mm entrance hole will attract great, blue, marsh, coal and crested tits, redstart, nuthatch, collared and pied flycatcher, wryneck, tree and house sparrow. * 26 mm entrance hole suits blue, marsh, coal and crested tits and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole. * Oval entrance hole (29 x 55 mm) suits redstarts because more light enters the brood chamber. It is also suitable for all other species which nest in the 32 mm boxes.	
Vivara Pro Barcelona WoodStone Open Nest Box Height 20 cm Width 15 cm Depth 20 cm Interior Diameter 12 cm Weight 2.5 kg Material Woodcrete These open nest boxes are suitable for wrens, robins, spotted flycatchers, pied and grey wagtails, song thrushes and blackbirds, and they are available in brown, green or grey to complement both natural woodland and garden settings. The best height for your nest box is between 1.5m and 3m high, and open nest boxes should be sited in undergrowth such as ivy to provide cover for the nest.	

4.6.5. Bat Boxes

Where possible it is recommended that the potential for provision of bat boxes and associated measures at the site be investigated. Where inclusion is possible (e.g. suitable trees are present and retained within the buffer habitats), it is recommended that a number of multipurpose bat boxes be installed on the trees present. The additional bat boxes will provide a different roosting habitat, targeting crevice dwelling species. Suitable bat boxes are detailed in **Table 4.4** below. Details of installation should be informed by a suitably qualified ecologist at the appropriate time.

Table 4.4: Bat Box Specifications

Bat Box Specification	Photograph
Kent Bat Box Two 25 mm cavities provide plenty of roost space in this self-cleaning box, which has been left untreated. The two protruding nail heads on the front of the box provide a handy anchor point when strapping the box to a tree or pole. These bat boxes are suitable for crevice-dwelling species, such as common, soprano and Nathusius pipistrelle, Barbastelle, Brandt's and whiskered bats. These boxes should be sited at least 2 m above ground and away from artificial light sources. Suitable for attaching to trees, fences and external walls. Source: https://www.nhbs.com/nhbs-kent-bat-box	
IFF Schwegler Bat Boxes with Built In Wooden Rear Panel Height 40 cm Width 27 cm Depth 14 cm Entrance Hole 12 cm x 24 cm Weight 9.5 kg Material Woodcrete The Schwegler 1FF bat box is spacious enough for bats to use as a summer roost or nursery sites and is open at the bottom, allowing droppings to fall out so it does not need cleaning. The 1FF is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20–25 years. Source: http://www.nhbs.com/title/158636/1ff-schwegler-bat-box-with-built-in-wooden-rear-panel	

4.6.6. Invertebrate Houses

To further increase the site's value for invertebrates, it is recommended that a number of 'insect hotels' are incorporated into the site. The incorporation of the insect house will increase opportunity for solitary bees, ladybirds, lacewings and more. It is recommended that the insect hotels are at least 30 cm by 30 cm. Further details of the recommended insect box are included below in **Table 4.5**.

Table 4.5: Recommended Insect Box

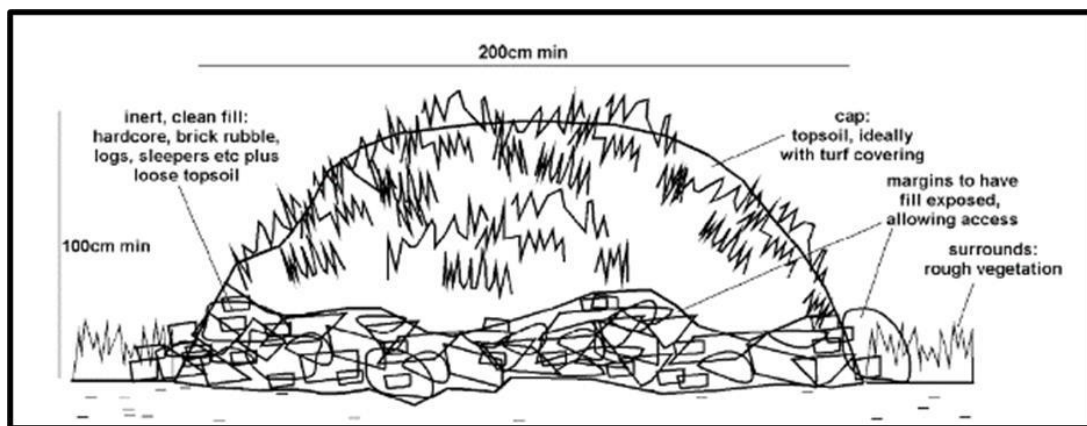
Insect Box Specification	Photograph
Schwegler Clay & Reed Insect Nest	
An attractive insect nest which can be hung in any sunny, sheltered spot. Reeds on either side of a clay central section provide a range of environments to suit different insects (designed to attract only harmless insects). Species targeted: invertebrates	

4.6.7. Hibernacula

In order to increase the site's value for reptiles, amphibians and hedgehogs it is recommended that a number of hibernacula are provided within the retained/enhanced habitats and buffer zones.

The recommended hibernaculum would consist of brash, logs, rubble and other materials topped with soil and turf. The minimum dimensions of each hibernaculum should be 2 m wide by 1 m tall. The hibernacula should be placed in a suitably sunny location, within existing vegetation, so that there is immediate cover for reptiles. An example hibernaculum is illustrated in **Figure 4.6**; however, this would ideally be created so that the finish is ground level so that below ground chambers are created.

Figure 4.6: Hibernaculum



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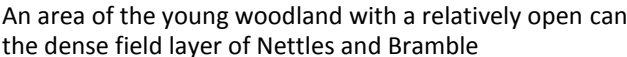


DRAWINGS



APPENDIX I – TARGET NOTES & PHOTOGRAPHS

TARGET NOTES (TN) & PHOTOGRAPHS

TN	Features	Description of Feature
1	Hedgerow	Northern site boundary hedgerow, looking south-west 
2	Regenerating scrub / woodland	Regenerating scrub / woodland, viewed from the northern end looking south, showing the group of retained Wild Cherry trees 
3	Eastern boundary watercourse	Viewed offsite from Redwither Road, looking north into the site. The two watercourses have merged at the point shown in the photo. 
4	Young woodland	An area of the young woodland with a relatively open canopy, showing the dense field layer of Nettles and Bramble 

			
5	Grassland	Grassland viewed from the northern site margin, looking southwards 	

APPENDIX II – PLANT SPECIES LIST

PLANT SPECIES LIST

Species	Latin Name	DAFOR Abundance
Regenerating vegetation		
Alder	<i>Alnus glutinosa</i>	D
Cow Parsley	<i>Anthriscus sylvestris</i>	O
Wavy Bittercress	<i>Cardamine flexuosa</i>	R
Creeping Thistle	<i>Cirsium arvense</i>	F
Red-osier Dogwood	<i>Cornus sericea</i>	O
Hawthorn	<i>Crataegus monogyna</i>	F
Cock's-foot	<i>Dactylis glomerata</i>	O
Great Willowherb	<i>Epilobium hirsutum</i>	R
Field Horsetail	<i>Equisetum arvense</i>	O
Great Horsetail	<i>Equisetum telmateia</i>	R
Common Ramping-fumitory	<i>Fumaria muralis</i>	R
Cleavers	<i>Galium aparine</i>	O
Ground Ivy	<i>Glechoma hederacea</i>	O
Bristly Ox-tongue	<i>Helminthotheca echioides</i>	O
Hogweed	<i>Heracleum sphondylium</i>	O
Redshank	<i>Persicaria maculosa</i>	R
Rough Meadow-grass	<i>Poa trivialis</i>	O
Wild Cherry	<i>Prunus avium</i>	O
Dog-rose	<i>Rosa canina</i> agg.	O
Bramble	<i>Rubus fruticosus</i> agg.	F
Broadleaved Dock	<i>Rumex obtusifolius</i>	O
Grey Willow	<i>Salix cinerea</i>	O
Elder	<i>Sambucus nigra</i>	O
Groundsel	<i>Senecio vulgaris</i>	R
Woody Nightshade	<i>Solanum dulcamara</i>	R
Common Field Speedwell	<i>Veronica persica</i>	R
Tufted Vetch	<i>Vicia cracca</i>	R
Young woodland		
Sycamore	<i>Acer pseudoplatanus</i>	R
Garlic Mustard	<i>Alliaria petiolata</i>	R
Ramsons	<i>Allium ursinum</i>	LF
Alder	<i>Alnus glutinosa</i>	D
Lords-and-Ladies	<i>Arum maculatum</i>	R
Downy Birch	<i>Betula pubescens</i>	R
Red-osier Dogwood	<i>Cornus sericea</i>	O
Hawthorn	<i>Crataegus monogyna</i>	F
Ash	<i>Fraxinus excelsior</i>	R

Cleavers	<i>Galium aparine</i>	LF
Wood Avens	<i>Geum urbanum</i>	O
Ground-ivy	<i>Glechoma hederacea</i>	O
Ivy	<i>Hedera helix</i>	O
Wild Cherry	<i>Prunus avium</i>	O
Blackthorn	<i>Prunus spinosa</i>	O
Blackcurrant	<i>Ribes nigrum</i>	R
Dog-rose	<i>Rosa canina</i> agg.	O
Bramble	<i>Rubus fruticosus</i> agg.	A
Wood Dock	<i>Rumex sanguineus</i>	O
Weeping Willow	<i>Salix babylonica</i>	R
Grey Willow	<i>Salix cinerea</i>	O
Elder	<i>Sambucus nigra</i>	O
Red Campion	<i>Silene dioica</i>	O
Woody Nightshade	<i>Solanum dulcamara</i>	O
Common Nettle	<i>Urtica dioica</i>	D
Hedgerows		
Yarrow	<i>Achillea millefolium</i>	F
Garlic Mustard	<i>Alliaria petiolate</i>	O
Cow Parsley	<i>Anthriscus sylvestris</i>	F
False Oat-grass	<i>Arrhenatherum elatius</i>	D
Common Knapweed	<i>Centaurea nigra</i>	O
Creeping Thistle	<i>Cirsium arvense</i>	O
Hawthorn	<i>Crataegus monogyna</i>	O
Great Willowherb	<i>Epilobium hirsutum</i>	O
Hogweed	<i>Heracleum sphondylium</i>	R
Oxeye Daisy	<i>Leucanthemum vulgare</i>	F
Perennial Ryegrass	<i>Lolium perenne</i>	O
Black Medick	<i>Medicago lupulina</i>	R
Creeping Cinquefoil	<i>Potentilla reptans</i>	O
Wild Cherry	<i>Prunus avium</i>	O
Blackthorn	<i>Prunus spinosa</i>	D
Pedunculate Oak	<i>Quercus robur</i>	R
Dog-rose	<i>Rosa canina</i> agg.	F
Bramble	<i>Rubus fruticosus</i> agg.	A
Curled Dock	<i>Rumex crispus</i>	O
Broadleaved Dock	<i>Rumex obtusifolius</i>	O
Oxford Ragwort	<i>Senecio squalidus</i>	R
Dandelion	<i>Taraxacum officinale</i> agg.	R
Common Nettle	<i>Urtica dioica</i>	O

Grassland, tall ruderal vegetation and watercourse banks		
Yarrow	<i>Achillea millefolium</i>	F
Agrimony	<i>Agrimonia eupatoria</i>	O
Alder (saplings)	<i>Alnus glutinosa</i>	O
False Oat-grass	<i>Arrhenatherum elatius</i>	D
Mugwort	<i>Artemisia vulgaris</i>	O
Common Knapweed	<i>Centaurea nigra</i>	A
Creeping Thistle	<i>Cirsium arvense</i>	LD
Cock's-foot	<i>Dactylis glomerata</i>	A
Wild Carrot	<i>Daucus carota</i>	O
Tufted Hair-grass	<i>Deschampsia cespitosa</i>	O
Common Couch	<i>Elymus repens</i>	F-O
Great Willowherb	<i>Epilobium hirsutum</i>	R
Great Horsetail	<i>Equisetum telmateia</i>	O
Red Fescue	<i>Festuca rubra</i>	O
Meadowsweet	<i>Filipendula ulmaria</i>	O
Cleavers	<i>Galium aparine</i>	O
Bristly Ox-tongue	<i>Helminthotheca echioides</i>	R
Hogweed	<i>Heracleum sphondylium</i>	LF
Yorkshire-fog	<i>Holcus lanatus</i>	O
Himalayan Balsam	<i>Impatiens glandulifera</i>	R
Yellow Iris	<i>Iris pseudacorus</i>	R
Hoary Ragwort	<i>Jacobaea erucifolia</i>	R
Common Ragwort	<i>Jacobaea vulgaris</i>	R
Prickly Lettuce	<i>Lactuca serriola</i>	O
Meadow Vetchling	<i>Lathyrus pratensis</i>	R
Lucerne	<i>Medicago sativa</i>	R
Hemlock Water-dropwort	<i>Oenanthe crocata</i>	LF
Meadow Foxtail	<i>Phleum pratense</i>	F
Ribwort Plantain	<i>Plantago lanceolata</i>	F
Greater Plantain	<i>Plantago major</i>	R
Common Knotgrass	<i>Polygonum aviculare</i>	O
Selfheal	<i>Prunella vulgaris</i>	O
Dog-rose	<i>Rosa canina</i> agg.	R
Bramble	<i>Rubus fruticosus</i> agg.	O
Curled Dock	<i>Rumex crispus</i>	O
Broadleaved Dock	<i>Rumex obtusifolius</i>	O
Perennial Sow-thistle	<i>Sonchus arvensis</i>	O
Upright Hedge-parsley	<i>Torilis japonica</i>	R
Common Nettle	<i>Urtica dioica</i>	LA

Tufted Vetch	<i>Vicia cracca</i>	0
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APPENDIX III – BAT ROOSTING, COMMUTING & FORAGING FEATURES

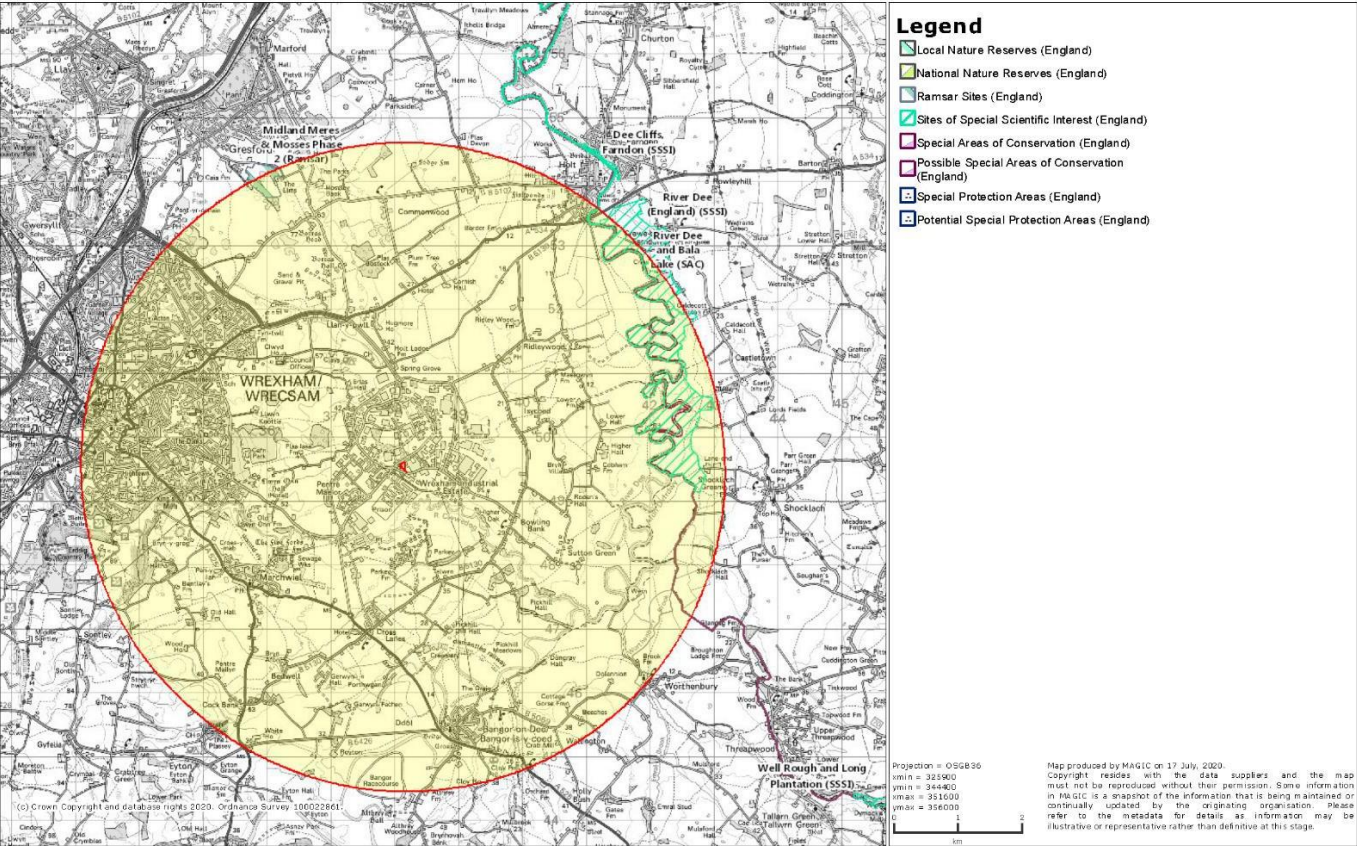
BAT ROOSTING, COMMUTING & FORAGING FEATURES

COMMUTING & FORAGING FEATURES	
Suitability	Description
Moderate	Young woodland, small in extent but with some connectivity to offsite habitats to the north (including a pond) and south (further areas of woodland)
Moderate to high	Watercourses along the site margins. The eastern watercourse in particular provides connectivity between the offsite pond area to the north and areas of woodland to the south, with larger areas of suitable foraging habitat within the Wildlife Site to the south-east.
Low	The hedgerow along the northern margin of the site, which is limited in extent and with poor connectivity to surrounding habitats.
Low	Regenerating scrub / young woodland. Likely to be used opportunistically by foraging bats in the area, but unlikely to be of any significance for local populations given the poor vegetation cover.

APPENDIX IV – SURROUNDING HABITATS & SITES



5958 MAGIC Designations



APPENDIX V – PROTECTED SPECIES LEGISLATION

PROTECTED SPECIES LEGISLATION

Legislation (England & Wales)	Relevant Species	Offence
European Protected Species (EPS): Protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). Schedule 5: Protected under the Wildlife and Countryside Act 1981 (as amended) in respect to section 9(4)(b) and (c) and (5) only.	- Bats, all species (<i>Rhinolophidae</i> & <i>Vespertilionidae</i> species) - Great Crested Newt (<i>Triturus cristatus</i>) - Otter (<i>Lutra lutra</i>)	- Deliberately captures, injures or kills any wild animal of an EPS, - Deliberately disturbs wild animals of any such species (in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.), - Deliberately takes or destroys the eggs of such an animal, or - Damages or destroys a breeding site or resting place of such an animal, - Possess, control, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a EPS, or any part of, or anything derived from a EPS, - Intentionally or recklessly disturb a EPS while it is occupying a structure or place which it uses for shelter or protection; or - Intentionally or recklessly obstruct access to any structure or place which any EPS uses for shelter or protection.
Protection of Badgers Act (1992)	Badger (<i>Meles meles</i>)	It is an offence to: wilfully kill or injure a badger, or attempt to do so and to intentionally or recklessly interfere with a badger sett. This includes: - Damaging or destroying an active sett; - Obstructing access to a sett; and - Disturbing a badger while it is occupying a sett.
Schedule 5: Protected under section 9(5) of the Wildlife and Countryside Act 1981 (as amended).	- Adder (<i>Vipera berus</i>) - Slow-Worm (<i>Anguis fragilis</i>) - Grass Snake (<i>Natrix natrix</i>)	- Intentionally kill or injure; - Sell, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, such an animal; or - Publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.
Wildlife and Countryside Act 1981 (as amended)	All wild birds	- Kill, injure or take any wild bird; - Take, damage or destroy the nest of any wild bird while it is being built or in use; - Take or destroy the eggs of any wild bird; and, - Possess or control any wild bird or egg unless obtained legally.
Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)	- Barn Owl (<i>Tyto alba</i>) - Peregrine Falcon (<i>Falco peregrinus</i>)	- Disturb any wild bird listed on Schedule 1 whilst it is building a nest or is in, on, or near a nest containing eggs or young; or - Disturb the dependent young of any wild bird listed on Schedule 1.

Legislation (England & Wales)	Relevant Species	Offence
Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)	Water Vole (<i>Arvicola amphibius</i>)	- Intentionally kill, injure or take water voles; - Possess or control live or dead water voles or derivatives; - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection; or - Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.
Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)	- Japanese Knotweed (<i>Fallopia japonica</i>) - Himalayan Balsam (<i>Impatiens glandulifera</i>)	Invasive plants are listed on Schedule 9 (part 2, section 14) of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to ' <i>plant or otherwise cause such species to grow</i> ' in the wild. This includes spreading of the species or transferring polluted ground material from one area to another.
<i>Note. Information presented in this table is only a summary of the relevant legislation</i>		