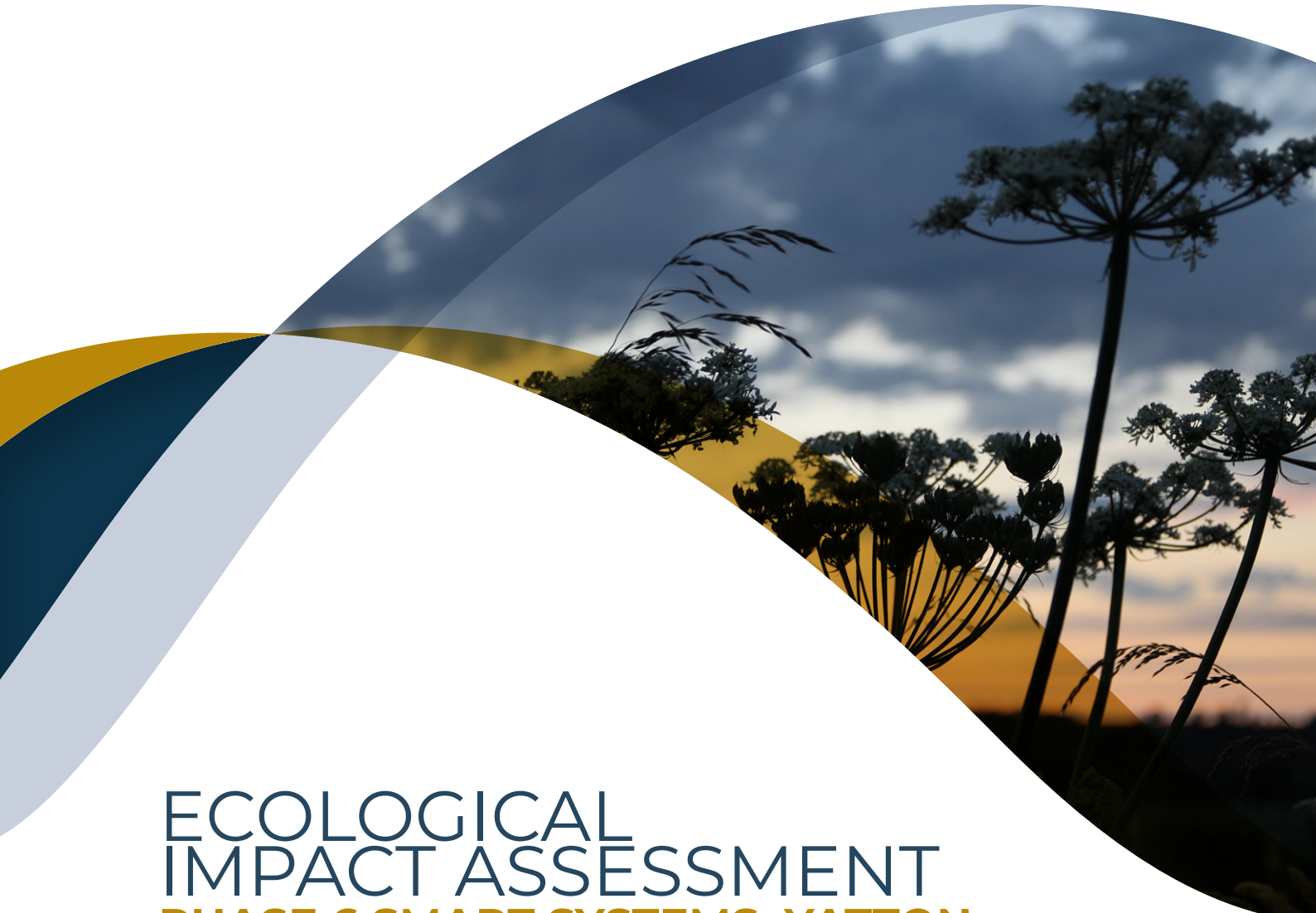


BURTON REID  
ASSOCIATES



ECOLOGICAL  
IMPACT ASSESSMENT  
**PHASE 6 SMART SYSTEMS, YATTON**  
SMART SYSTEMS

| September 2021 | BR0532/EclA/D |



## COMPANY PHILOSOPHY

*Burton Reid Associates are a multi-disciplinary consultancy specialising in providing high quality ecological and landscape design and advice related to the provision of embedded green and blue infrastructure and biodiversity net gains. We have a simple philosophy, designing with nature in mind supports the long-term health and wellbeing of us all. We work with clients who share this philosophy.*

*We can help you to achieve biodiversity net gains and deliver high-quality green infrastructure at a local and strategic level. We provide expert ecological services, undertaking surveys for protected species and habitats and supporting you to create on and off-site mitigation with our dedicated habitat management team. Our services include landscape architecture and production of high quality graphics that clearly communicate information and data.*

# Document Control

<b>Site name:</b>	Phase 6 Smart Systems, Yatton, North Somerset
<b>Project No:</b>	BR0532
<b>Document Title:</b>	Ecological Impact Assessment
<b>Document No:</b>	BR0532/EcIA/D
<b>Client:</b>	Smart Systems
<b>OS Grid:</b>	ST 4149 6593

<input type="checkbox"/>	Original Document	<input checked="" type="checkbox"/>	Revision	<input type="checkbox"/>	Revision Code
<b>Surveyor(s):</b>	Ella Dangerfield	Graduate Ecologist		01364 701150 ella.dangerfield@burtonreid.co.uk	
<b>Prepared by:</b>	- Ella Dangerfield (Qualifying member of CIEEM)	Graduate Ecologist	07/04/2021	01364 701150 ella.dangerfield@burtonreid.co.uk	
	- Jenni Reid CEnv MCIEEM	Founder		01364 701151 jenni.reid@burtonreid.co.uk	
	- Tom Davies MCIEEM	Senior Ecologist		01364 701150 tom.davies@burtonreid.co.uk	
<b>Checked by:</b>	Laura Snell BSc (Hons) MCIEEM	Principal Ecologist	07/04/2021	01364 701150 laura.snell@burtonreid.co.uk	
<b>Approved by:</b>	Jenni Reid CEnv MCIEEM	Founder	15/09/2021	01364 701151 jenni.reid@burtonreid.co.uk	

## Revision Record

Rev Code	Date Prepared	Prepared By	Checker/Approved	Description of Changes

*"As we rekindle our imagination, we discover our power to act. And that is the point at which we become unstoppable."*

George Monbiot, journalist and author

**BURTON REID**  
ASSOCIATES



## DECLARATIONS OF COMPLIANCE

The report which we have prepared and provided is in accordance with the Chartered Institute for Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

This report has been produced in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development" and the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Report Writing (CIEEM, 2017).

## DATA VALIDITY

Please note that unless otherwise stated, the contents of this report will remain valid for a maximum period of 12 months from date of issue. Beyond this updated survey work may be required to establish any changes in baseline conditions.

## DISCLAIMER

Burton Reid Associates has exercised all reasonable skill and due care in preparing this report. Burton Reid Associates has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and Burton Reid Associates assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that Burton Reid Associates performed the work (including based on the information provided by the client). Professional judgement and opinion has been utilised where required. All opinion is provided in good faith.



## NON-TECHNICAL SUMMARY

An Ecological Appraisal of the site was carried out in November 2020 by Burton Reid Associates in order to assess the potential wildlife value of the site and the presence or likely presence of protected or priority species. The proposals at the site include the extension (known as Phase 6) of an existing factory that manufactures aluminium doors.

A field survey and desk study were undertaken in order to assess ecological implications of the above proposals, involving an assessment of the likelihood for protected species to be present at the site or within any adjacent habitats which could be impacted by the proposals. A UK Habitat Classification map of the site was compiled as part of the work.

The table below provides a summary of recommendations made within this report, broken down into the development stage at which the work should be undertaken.

STAGE	RECOMMENDATIONS
<i>PRE-PLANNING</i> (RIBA Stages 0 to 2)	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>POST-PLANNING PRE-CONSTRUCTION</i> (RIBA Stages 3 & 4)	<ul style="list-style-type: none"> <li>Preparation of a robust lighting strategy that indicates there will be no lighting impacts above 0.5 LUX on the western boundary.</li> <li>Erection of Heras fencing with an attached mesh material to provide a protected corridor along the hedgerow to the west during construction.</li> </ul>
<i>CONSTRUCTION PHASE</i> (RIBA Stages 4 & 5)	<ul style="list-style-type: none"> <li>A CEcMP should be produced (to form part of or sit alongside the overarching contractor's CEMP) to ensure that ecological mitigation measures as described within this report are delivered during the construction phase.</li> <li>Strict Pollution Prevention Guidelines to be followed during the construction phase to prevent impacts to the rhyme adjacent to the Application Site and the designated wildlife sites in the wider landscape.</li> <li>Night-time construction work during the active bat season (April to November) or the breeding bird season (March to August) will be avoided where possible. Where unavoidable, lighting should be directional and, on a timer, to limit light spill onto the hedgerow and rhyme to the west of the site.</li> <li>No clearance of grassland or hedgerow habitats to be permitted during construction or operational phases. No additional storage of materials within adjacent grassland.</li> <li>Installation of 5 bird boxes within the hedgerow adjacent to the Application Site</li> </ul>

*POST-DEVELOPMENT  
(RIBA Stages 6 & 7)*

- Implementation of a robust lighting strategy that indicates there will be no lighting impacts above 0.5 LUX on the western boundary would constitute in our professional opinion suitably robust mitigation of impacts.
- A vegetated green buffer of at least 2 m along the western boundary adjacent to the Application Site should be maintained and a post and rail fence should be erected between the Application Site and this feature to protect it in perpetuity.
- Wastewater discharge should be carefully considered so that water quality impacts on the Biddle Street SSSI or the Congresbury Yeo, adjacent Land and Rhynes LWS are avoided once the Site is operational.

# CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>10</b>
1.1	BACKGROUND AND OBJECTIVES.....	10
1.2	LEGISLATION AND PLANNING POLICY.....	10
<b>2</b>	<b>METHODS.....</b>	<b>12</b>
2.1	SCOPE OF EcIA ASSESSMENT.....	12
2.3	FIELD SURVEY.....	14
2.3.1	Survey Visit.....	14
2.3.2	Weather Conditions and Surveyors.....	15
2.3.3	Constraints.....	16
<b>3</b>	<b>RESULTS.....</b>	<b>17</b>
3.1	DESK STUDY.....	17
3.1.1	Species.....	17
3.1.2	Designated sites.....	17
3.2	FIELD SURVEY.....	18
3.2.1	Habitats.....	19
3.2.2	Species.....	22
3.2.3	Ecological Evaluation.....	26
<b>4</b>	<b>IMPACT ASSESSMENT AND MITIGATION / AVOIDANCE MEASURES.....</b>	<b>30</b>
4.1	CEcMP.....	30
4.2	DESIGNATED SITES.....	30
4.3	HABITATS.....	32
4.4	SPECIES.....	33
4.4.1	Bats.....	33
4.4.2	Amphibians and reptiles.....	35



4.4.3	Breeding Birds.....	36
5	<b>BIODIVERSITY ENHANCEMENT MEASURES .....</b>	<b>37</b>
6	<b>REFERENCES.....</b>	<b>39</b>
7	<b>APPENDICES.....</b>	<b>41</b>
	Appendix I: Legislation and Planning Policy .....	42
	Appendix II: Plant Species Lists .....	44
	Appendix III: Habitat Map.....	45
	Appendix IV: Target Notes for Habitat Map.....	46

# 1 INTRODUCTION

## 1.1 BACKGROUND AND OBJECTIVES

This document has been prepared by Burton Reid Associates on behalf of Smart Systems who intend to submit a planning application to North Somerset Council for the construction of an extension to an existing industrial manufacturing building with an area of 12,500m<sup>2</sup>.

The need to carry out an ecological assessment was identified in order to highlight any potential ecological constraints and ecological opportunities on the Site (hereafter referred to as the 'Application Site') associated with proposals being developed for a planning application.

The Application Site is centred on National Grid Reference ST 4149 6593 and comprised an area of compacted hard-core. Immediately adjacent but outside of the Application Site were a hedgerow, a strip of grassland, and a section of rhyme which are all referred to in the report where pertinent.

The Application Site boundary is defined in Appendix III.

A description of the survey methods used is provided together with descriptions of habitats present on and around the Application Site. Potential impacts of the development on habitats / species together with avoidance, mitigation and biodiversity enhancement measures are also included.

## 1.2 LEGISLATION AND PLANNING POLICY

This report has been written with reference to the following wildlife legislation, links to the full text of which can be found in Appendix I:

- Conservation of Habitats and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- Countryside Rights of Way Act 2000;
- Natural Environment and Rural Communities Act 2006.

A summary of relevant specific species legal protections derived from the above legislation is also given in Appendix I, for ease of reference.

Furthermore, the following planning policies, guidance and local plans have been taken into account and referred to where appropriate:

- Yatton Neighbourhood Development Plan for the Period 2017-2026;

- North Somerset Council Core Strategy (2017);
- ODPM Circular 06/2005: Biodiversity and Geological Conservation;
- UK Post-2010 Biodiversity Framework;
- National Planning Policy Framework (NPPF);
- CIEEM Biodiversity Net Gain – Good Practice Principles for Development;
- CIEEM Biodiversity Net Gain – Good Practice Principles for Development, A Practical Guide.

## 2 METHODS

### 2.1 SCOPE OF EcIA ASSESSMENT

The Ecological Impact Assessment (EcIA) has been undertaken following the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment (CIEEM, 2018). These guidelines represent current best practice when assessing the impacts of development on biodiversity.

In summary, the guidelines provide a framework for describing the potentially significant effects of a proposed development on ecology and for setting out mitigation and enhancement measures to avoid/minimise impacts and create positive outcomes for biodiversity.

In the first instance, ecological features of importance are identified using a geographical frame of reference. For the purposes of this report the following geographical frame of reference has been used.

- International,
- National (England)
- Regional (South West England)
- County / local authority area (North Somerset)
- Local (e.g. Yatton)
- Site (the Site boundary and immediate surrounds)
- Negligible (of very low/limited ecological value).

The next step in EcIA involves predicting the likely impacts of a development (both positive and negative) on ecological features of importance and taking into account avoidance and mitigation measures. In EcIA any significant impacts which remain after taking into consideration mitigation/compensation measures are used to determine the overall ecological implications of the scheme in terms of legislation, planning policy and development control.

### 2.2 DESK STUDY

A data search from Bristol Regional Ecological Records Centre (BRERC) in order to carry out a desk study into the presence of protected and priority species in the wider area. A search area of 2km surrounding the Application Site was requested. This was extended to 4km in respect of designated sites following receipt of a screening opinion from North Somerset Council (ref 20/P/3156/EA1) who requested that a number of statutory sites beyond 1km be considered as part of the ecological assessment. Additional resources used are listed below:

- NBN Atlas – records for commercial use only (CC-BY, CCo and OGL licenced data) ([www.nbnatlas.org](http://www.nbnatlas.org)).

- Phase 4, Smart Systems, Yatton Ecological Appraisal by Wild Service in October 2016
- Phase 5, Smart Systems, Yatton Ecological Appraisal by Wild Service in October 2016
- Bat Assessment for Smart Systems Ltd, The Landmark Practice, 2013
- Ecological Assessment for Smart Systems Ltd, The Landmark Practice, 2012

Protected species are those which are afforded legal protection. Priority habitats and species are those which have some level of nature conservation importance due to factors such as rarity, vulnerability or declining population/status and are considered as priorities for nature conservation. They may be of importance at a national scale, or at a more local level and include 'Habitats/Species of Principal Importance' as listed under Section 41 of the NERC Act (2006).

The presence of nearby statutory and non-statutory designated sites and priority habitats was established using the following resources:

- MAGIC map tool ([www.magic.gov.uk](http://www.magic.gov.uk));
- North Somerset policies map tool ([Policies Map \(n-somerset.gov.uk\)](http://Policies Map (n-somerset.gov.uk)));
- North Somerset and Mendip Bats SAC Guidance on Development.

Statutory sites are those which are protected under current UK/European legislation and include Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar Sites and Local Nature Reserves (LNR).

Non-statutory sites include Local Wildlife Sites (LWS). They are designated on account of the flora and fauna they support and represent some of the best wildlife sites in the County.

The location of the Application Site in relation to the North Somerset and Mendip Bats SAC Consultation Zone was also established. The North Somerset and Mendip SAC is a site of European importance for wildlife and is important for two bat species: the Greater Horseshoe bat *Rhinolophus ferrumequinum* and the Lesser Horseshoe bat *Rhinolophus hipposideros*. The landscapes around the SAC are important in providing foraging habitat needed to maintain the favourable conservation status of the horseshoe bats. Developments falling within a bat consultation zone must therefore demonstrate that proposals will not adversely impact on the designated bat populations.

The results of the desk study are provided in Section 3.1 below.

## 2.3 FIELD SURVEY

### 2.3.1 Survey Visit

A field survey of the Application Site was carried out in November 2020 by Burton Reid Associates in order to assess

the potential wildlife value of the Application Site and to assess the presence or likely presence of protected or priority species / habitats. All habitat types on the Application Site were mapped with target notes describing particular features of interest. Photographs were also taken for reference.

The Application Site was assessed using the UK Habitat Classification System (UKHAB). This system for habitat classification allows for clear interpretation of data as it takes into account important habitat types such as Priority and Annex I habitats<sup>1</sup>. The system also allows for translation between existing classifications including the Phase I Habitat methodology (JNCC 2010) and the National Vegetation Classification (Rodwell et al. 1991-2000). It comprises a principle hierarchy (primary habitats) which include ecosystems, broad habitats, priority habitats and Annex I Habitats together with a suite of more detailed secondary codes which can be used to record further information on habitat features, land use, landscape context and management practices.

An assessment was also made of the potential for the habitats on the Application Site to support protected or priority species. Species groups considered during this assessment of habitat suitability are provided below. Please note that this list is not exhaustive, and only covers species which are commonly found on development sites and receive some form of legal protection.

- Mammals - including bats (all species), Hazel Dormouse *Muscardinus avellanarius*, Badger *Meles meles*, Water Vole *Arvicola amphibius* and Otter *Lutra lutra*;
- Amphibians – including Great Crested Newt *Triturus cristatus*;
- Reptiles – including Slow-worm *Anguis fragilis*, Common Lizard *Zootoca vivipara*, Barred Grass Snake *Natrix helvetica*, and Adder *Vipera berus*.
- Birds (all species). Particular emphasis given to bird species listed under Schedule 1 of the Wildlife and Countryside Act (1981) as amended, species listed on Section 41 of the NERC Act (2006) and Red and Amber listed Birds of Conservation Concern (Eaton et al., 2015).

A Habitat Suitability Index assessment was carried out in November 2020 on a pond located 490m from the Application Site (within the ownership of the Applicant). The pond was assessed against the following ten suitability indices in accordance with the methods set out in Oldham *et al.* (2000):

1. Geographic location
2. Pond area
3. Pond permanence
4. Water quality
5. Shading by bankside trees and trees
6. Presence of waterfowl

<sup>1</sup> A natural habitat listed under Annex I of the European Habitats Directive for which Special Areas of Conservation can be selected.



- 7. Presence of fish
- 8. Pond density in the area
- 9. Terrestrial habitat quality
- 10. Macrophyte cover in pond

An HSI value was then calculated through which the level of suitability of a waterbody for Great Crested Newts can be determined along with a predicted percentage likelihood of Great Crested Newts being present within a waterbody. These values are provided in Table 1 below:

*Table 1: Pond Suitability Classification for Great Crested Newts (ARG UK, 2010)*

Habitat Suitability Index (HSI) Score	Pond Suitability	Proportion of Ponds Occupied by Great Crested Newts (%)
< 0.5	Poor	0.03
0.5 - 0.59	Below Average	0.2
0.6 - 0.69	Average	0.55
0.7 - 0.79	Good	0.79
> 0.8	Excellent	0.93

### 2.3.2 Weather Conditions and Surveyors

The date the survey was undertaken along with the prevailing weather conditions are provided in Table 2 below.

*Table 2: Survey date and weather conditions*

DATE	WEATHER CONDITIONS
25/11/2020	Temp: 12.6°C Wind <sup>1</sup> : 2-3 Cloud <sup>2</sup> : 5/8 Rain: None

1: Wind as per Beaufort scale

2: Cloud cover given in Oktas (/8)

The HSI survey was undertaken by Ella Dangerfield (Qualifying member of CIEEM) and Jenni Reid CEnv MCIEEM in November 2020.

Follow-up eDNA surveys were undertaken in two locations within the local water network directly connected to the

Application Site.

Water samples were collected on 15th April 2021 within the recommended time period of mid-April to late-June and samples were sent to Applied Genomics Ltd for analysis.

### 2.3.3 Constraints

Some early flowering plants may not have been evident at the time the survey was undertaken due to the time of year. Based on the types of habitats present at the Application Site (predominantly bare ground) this constraint is considered unlikely to be significant to the results of the survey.

A pond located 250m from the Application Site and several rhynes were not accessible during the survey and as such no HSI assessment could be undertaken. Prior ecological reports and survey data were however used to inform the assessment at the Application Site during the desk study and these confirmed that Great Crested Newt were not present within the locality. . In addition, eDNA surveys have been undertaken within rhynes that are directly connected to the rhynes located adjacent to the Application Site and therefore this is not considered to be a constraint to this assessment. Information on the species has however been used to inform precautionary construction phase mitigation.

## 3 RESULTS

### 3.1 DESK STUDY

#### 3.1.1 Designated sites

Three statutorily designated sites were identified within 1km of the Application Site. This included Biddle Street Yatton SSSI (400m SSE of the Site), designated for its aquatic plant assemblages and invertebrate species and Cheddar Valley Railway Walk LNR which lies 660m approx. to the ESE of the Application Site. The Application Site also falls within Consultation Zone C of the North Somerset and Mendips Bats SAC, which lies approximately 3km to the E.

The Application Site is classified by the Priority Habitat Inventory as Coastal Floodplain and Grazing Marsh and is surrounded to the N, W and S by this priority habitat. It should be noted that these Priority Habitat zones were mapped historically and remotely and are not necessarily a result of ground truth surveys as can be evidenced by the fact that the Application Site consists almost entirely of hardstanding and built environment also falls under this Priority Habitat.

The Application Site lies within several SSSI Impact Risk Zones, with the development proposals meeting the criteria for Natural England consultation (large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m<sup>2</sup>). These are listed in table 3 below.

*Table 3: Statutory designated sites and consultation zones*

RECORD	LOCATION	DESCRIPTION
North Somerset and Mendips Bats SAC, Consultation Zone C	Within Zone C	The "Bat Consultation Zone" is where horseshoe bats may be found and is divided into bands A, B and C, reflecting the likely importance of the habitat for the bats and proximity to maternity and other roosts.
Biddle Street SSSI	400m to the south of Application Site	Network of rhynes and waterways designated for its aquatic plant assemblages and invertebrate species.
Tickenham, Nailsea & Kenn Moors SSSI	1.25km to the east of Application Site	Network of rhynes and waterways designated for its aquatic plant assemblages and invertebrate species.
Puxton Moor SSSI	2km to the south of the Application Site	Network of rhynes and waterways designated for its aquatic plant assemblages and invertebrate species.
King's Wood & Urchin Wood Site SSSI	3.2km to the east of the Application Site	Ancient woodland with important populations of greater horseshoe bat and hazel dormouse.

RECORD	LOCATION	DESCRIPTION
Cheddar Valley Railway Walk Local Nature Reserve (LNR)	660m to the east of Application Site	Following a disused railway line, this site supports birds, bats, reptiles, and amphibians.
Cadbury Hill LNR	2.3km to the south-east of the Application Site	Ancient semi-natural woodland.

Non-statutory sites in the area include Congresbury Yeo, Adjacent Land and Rhynes LWS which borders the southern boundary of the industrial site and Horsecastle Pond LWS 580m to the east.

## 3.2 FIELD SURVEY

The field survey was carried out in November 2020 and comprised a UK Habitat Classification survey and protected species scoping survey. The results of this survey are described in the sections below. Full species lists are provided in Appendix II. The map in Appendix III shows the habitats recorded both within the proposed construction footprint and wider survey area with associated target notes for features of interest and photographs included in Appendix IV.

In summary, the Application Site comprised bare ground with incorporated hardcore. Immediately adjacent to the Application Site was a strip of grassland vegetation (where some machinery and materials were being stored) next to a rhyne flanked by hedgerows. There was an arable field of maize stubble to the south of the Application Site. The Application Site is found on the western extremity of an industrial estate with an existing large-scale manufacturing unit immediately to the north and east (owned by the Applicant). In the wider context, farmland was found to the south, west and north.


The main habitats present are described in more detail in Section 3.2.1 below. Comments related to an arable field covered in winter stubble immediately adjacent to, and adjoining the Application Site have been included where pertinent to provide a more complete assessment of the Application Site and potential impacts to the surrounds.

### 3.2.1 Habitats

Habitats recorded within the Application Site are described in the sections below, along with the most abundant species found in each. Full species lists are provided in Appendix II.


u1c: Artificial unvegetated, unsealed surface-on site

This habitat comprised dug-over earth with hardcore incorporated into it. Previous surveys undertaken at the Application Site in 2016 confirmed that this habitat type was also present at that time (Wild Service, 2016).

UKHAB Primary	UKHAB Secondary	Phase I translation
u1c – Artificial unvegetated, unsealed surface	g1 – Development site 351 – Vacant/derelict land	Bare ground
	<i>P1 – Prepared ground on Application Site (T1 on map in Appendix III)</i>	

h2a: Hedgerow (Priority Habitat)-off site

The Application Site is bordered by a hedgerow to the west. This was species -poor and comprised mainly of Black-thorn *Prunus spinosa* and Hawthorn *Crataegus monogyna* and was largely continuous along this boundary. The hedgerow qualifies as being a priority habitat as it is comprised of 80% cover of at least one woody native species.

UKHAB Primary	UKHAB Secondary	Phase I translation
h2a – Hedgerow (Priority habitat)	76 – Recent management	Hedges – intact – species-poor
	<i>P2 – Section of hedgerow to the west of the Application Site (T3 on map in Appendix III)</i>	

g3c: Other neutral grassland-off site

In between the Application Site and the hedgerow was a narrow strip of grassland which included species such as Cock's-foot *Dactylis glomerata*, Perennial Rye-grass *Lolium perenne*, Creeping Thistle *Cirsium arvense*, Silverweed *Po-*


*tentilla anserina* and Creeping Bent *Agrostis stolonifera* where items of machinery and other equipment were stored. There were also small areas of ruderal/ephemeral vegetation but they were not mapped because of their limited extent

UKHAB Primary	UKHAB Secondary	Phase I translation
g3c - Other neutral grassland	17 Ruderal/ephemeral	Semi-improved grassland; Ephemeral/perennial
	<p><i>P3 – narrow strip of grassland next to hedgerow with stored machinery and materials (T2 on map in Appendix III)</i></p>	
	<p><i>P4 – Ruderal/ephemeral vegetation colonising areas adjacent to hedgerow</i></p>	



*r1 – Standing open water and canals-off site*

The western side of the hedgerow was flanked by a rhyne which contained blankets of floating (Duckweed *Lemna* sp.) and submerged vegetation, the former indicating a state of eutrophication.

UKHAB Primary	UKHAB Secondary	Phase I translation
r1 – Standing open water and canals (eutrophic)	39 Freshwater man-made	Wet ditch
	<p><i>P5 – Clear view of rhyne choked with Duckweed and overhanging hedgerows</i></p>	

3.2.2 Species

An assessment of the potential for the following protected / priority species to occur within habitats on/in close proximity to the Application Site is provided below.

Plants

No records of plants of priority status or conservation concern within 1km of the Application Site were returned during the desk study, nor were any recorded during the survey visit.

No invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded at the Application Site during the survey. Therefore, this species group is not considered further within this report.

Bats

Results from the BRERC data search revealed records of the following species within 2km of the Site (distance of

closest records to the Application Site are given in brackets), as well as records of known bat roosts, which are noted alongside the relevant species. Please note that bat roost sites are given at a resolution of 1km<sup>2</sup> and thus, the distance from the Application Site may be greater or smaller depending on the exact location of roost within the quadrat.

- 12 records of Common pipistrelle (720m E)
- 21 records of Greater horseshoe bat (1400m SE); 2.4km SW
- 26 records of Noctule (340m E); roost 1.2km SE
- 10 records of Lesser horseshoe bats (930m E); roost 470m E
- 1 record of Whiskered bat *Myotis mystacinus* (1270m E)
- 5 records of Brown long-eared bat *Plecotus auritus* (730m E)
- 5 records of Daubenton's bat (1300m E)
- 3 records of Leisler's bat (1300m E)
- 14 records of Serotine (560m E); roost 1.8km N
- 21 records of *Myotis* sp. (2400m S)
- Pipistrelle species roost (870m NW)

### Roosting Bats

No suitable bat roosting features for bats were present within the Application Site. The industrial buildings are constructed with closed metal sheeting and have no suitable access points for bats. No trees were located within the Application Site boundary.

### Bat Activity

The Application Site falls within the North Somerset and Mendips Bats SAC, **Consultation Zone C**. According to the North Somerset and Mendip Bats Special Area of Conservation (SAC) Guidance on Development: Supplementary Planning Document (2018), potential development sites within this zone must give due consideration to impacts on commuting and foraging bats. Within bands A or B of the Consultation Zone, proposals with the potential to affect features important to bats should be discussed with the local authority and/or Natural England as necessary. **Within band C developers should take advice from their consultant ecologist.**

The current Application Site offers limited suitability for foraging bats, being comprised predominantly of compacted earth and hardcore. The hedgerow located along the western boundary of the Application Site and adjacent rhyme both offer potential for commuting and foraging bats. However, lighting is used extensively along the length of the buildings on the existing industrial site which would act as a deterrent to light-sensitive species of bats (e.g. horseshoe and *Myotis* bats). Therefore, those features situated within close proximity to the building were considered to offer sub-optimal foraging or commuting opportunities for bats. It is therefore considered that (following the flowchart

on page 10 of the guidelines) a full season's survey was not needed.

Bat transect and automated surveys are however currently being completed within the wider industrial site area (adjacent to the Application Site) and the adjacent agricultural fields to gather a strategic baseline for the Applicant to inform future development proposals and therefore the results of these have been included to provide a baseline of bat activity in the wider area and to support the assessment of impacts within this report. A full data set cannot be provided at this point as surveys are still ongoing but these can be provided to the Local Authority and Natural England as and when they become available.

Bat activity (transect) surveys carried out by Burton Reid Associates in April to September 2021 confirmed the presence of low numbers of Common Pipistrelle and Soprano Pipistrelle bats commuting and foraging along the hedgerows in fields located to the NE of the Application Site. Two Greater Horseshoe bat passes were recorded along the western-most boundary of this field during the September survey.

Automated bat detectors deployed during April, May and June July and August recorded a total of 9376 bat passes<sup>2</sup> in these months combined. 44% were recorded at location 1 off-site along the western hedgerow boundary of a field to the N of the Application Site, 56% of recordings were at location 2 (see map below) on the north-east boundary of this field.



<sup>2</sup> Please note that number of passes cannot be relied upon to provide an estimate of numbers of bats as it can just be a reflection of one bat flying past a detector numerous times

Common Pipistrelle made up 8971 passes or 95.68% of all bats recorded. Other species recorded during the surveys included Noctule (102 passes or 1.09%), Soprano pipistrelle (157 passes or 1.67%), Nyctalus sp. (35 passes or 0.37%), Myotis sp. (37 passes or 0.39%) and Long-eared bat (10 pass or 0.11%).

Greater Horseshoe bats only made up 0.25% of the bats recorded (23 passes in total throughout this period) in habitats that are connected to the Application Site via a network of hedgerows. A single GHS pass was recorded at Position 2 with the rest recorded at Position 1.

Previous bat activity surveys completed by The Landmark Practice (2013) in relation to a prior development on the wider land parcel under the ownership of the Applicant found that only low numbers of Greater Horseshoe bats were utilising the site (current Application Site formed only a small part of the area surveyed in 2013 – please refer to the full report which can be provided on request).

It is therefore considered that the results contained within this report can be used to help inform the assessment provided within this document below.

#### Water vole and otter

The BRERC data search returned 3no. records of Water Vole. The closest was recorded within a rhyne located approximately 180m S of the Application Site associated with the Congresbury Yeo, adjacent land and rhyne LWS.

The bank of the rhyne on the Application Site was not considered to be suitable for Water Vole being dominated and overshadowed by woody species and containing very little herbaceous vegetation. The rhyne was shallow and appeared heavily eutrophic with no herbaceous vegetation in the channel (Dean et al, 2016). No evidence (burrows, feeding remains or droppings) were identified during the site visits.

43no. records of Otter were returned during the data search. The closest Otter was recorded approximately 900m to the S of the Application Site. It is considered possible that Otter might occasionally use the rhyne for movement/dispersal within the wider area. The high level of cover, deep banks and root systems provided potentially suitable habitat for Otter holts and resting places, however, the high levels of disturbance and noise associated with its proximity to a manufacturing unit (Chanin, 2003) lowered this potential significantly.

It is considered reasonably unlikely that Water Vole and Otter are present on the Application Site and so these species have not been considered further within this report.

#### Amphibians

The desk study identified three records of Great Crested Newt as follows:

- Field off Kenn Moor Road, Kenn Moor, Yatton located 1.37km to the NE of the Application Site;
- Grassland next to Stowey Rhyne. Located 1.3km to the E of the Application Site;



- In a small pond, Bramblewood, Yatton located 1.3km to the E of the Application Site.

All of the records identified above were on the far eastern side of Yatton, a densely populated area with associated road infrastructure and no connectivity to the Application Site via waterbodies.

Potential terrestrial habitat for amphibians, including Great Crested Newt, is present within habitat along the western boundary of the Application Site in areas that are currently used for storage of materials and containers. These locations provide some limited cover for foraging and hibernation in the grassland and hedgerow habitats and are sub-optimal given their location adjacent to a busy, well-lit industrial estate and their use as a storage area given to regular disturbance.

The rhyne located to the west of the Application Site provides negligible aquatic habitat for amphibians being covered in Duckweed and heavily shaded by the adjacent overgrown hedgerow. Two ponds are located within 500m of the Application Site including a pond 489m to the east (Pond 1) situated beyond numerous industrial units, car parks and access roads, and another pond (Pond 2) located 250m to the south-east of the Application Site on land outside of the Applicants ownership. A Habitat Suitability Index survey was completed on the one accessible pond (Pond 1). The results are provided in the table 4 below.

Burton Reid Associates undertook eDNA surveys of rhyne directly connected to the rhyne to the west of the Application Site This was carried out on 15 April 2021. Both locations were confirmed negative for GCN eDNA. Locations of the sample points are provided in table 4 below and these locations were chosen as they provided the most suitable Great Crested Newt habitat within the rhyne system around the wider site and were therefore considered to be a good benchmark for the connected rhyne.

*Table 4: Great Crested Newt HSI Assessment Results of Pond 1*

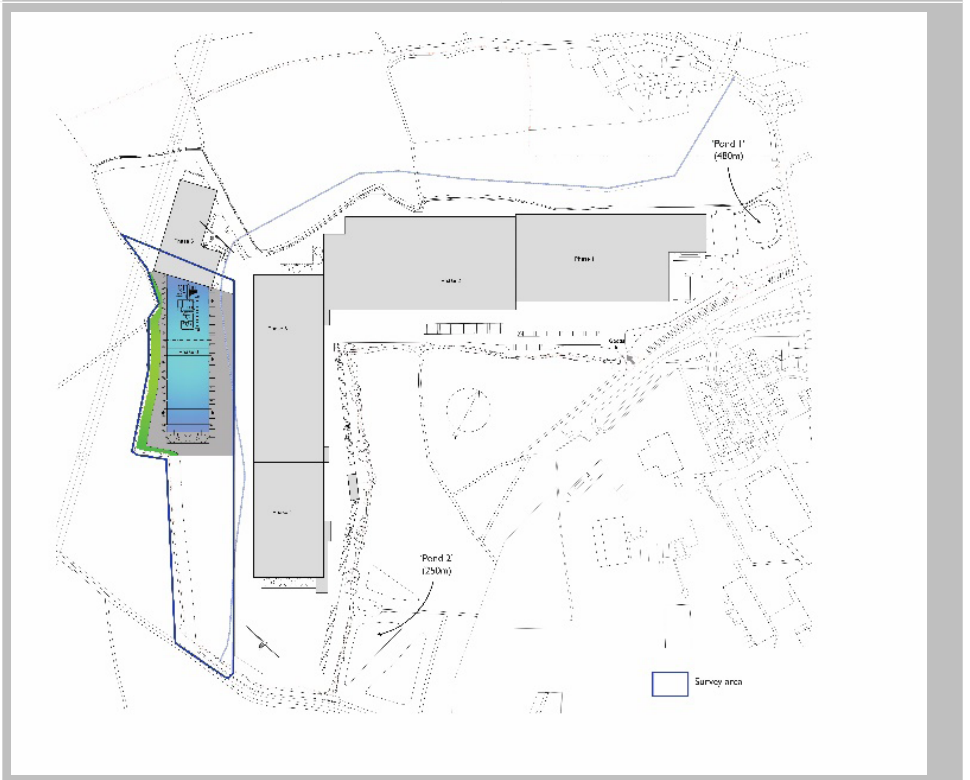
HSI Category	Assessment Notes	Score
SI1 - Location	Zone A	1
SI2 - Pond area	765m <sup>2</sup>	1
SI3 - Pond drying	Never	0.9
SI4 - Water quality	Moderate	0.67
SI4 - Shade	0%	1
SI6 - Fowl	Minor	0.67
SI7 - Fish	Possible	0.67
SI8 - Density of ponds in wider area	3 ponds within 1km radius.	0.6

HSI Category	Assessment Notes	Score
Sl9 – Terrestrial habitat quality	Moderate	0.67
Sl10 - Macrophytes	80% (at time of survey)	1
<b>HSI Score</b>		<b>0.80 (Excellent)</b>


*Pond 1*  
 489m to the east of the Site



*Location of Pond 1 & Pond(s) 2 in relation to the Site*





HSI Category	Assessment Notes	Score
<p><i>Location of eDNA sample points</i></p>		

In addition, ecological reports produced by The Landmark Practice (2012) in relation to prior phases of development adjacent to the current Application Site, confirmed that no evidence of GCN was identified during presence/absence surveys carried out on Ponds 1 and 2 mentioned above. It is recognised that data from the report is out of date, however, it is still considered noteworthy. Also, due to increased levels of development in the surrounding area in recent years and the Application Site's unsuitability for amphibians (i.e. the majority of the Application Site comprised artificial unvegetated, unsealed surface) habitats adjacent to the Application Site offer only very limited potential for GCNs.

Reptiles

The BRERC data search returned 1 record of Common Lizard, 27 records of Barred Grass Snake and 20 records of Slow-worm within the 2km desk study area.

Potential for low numbers of reptile species including Slow-worm and Common Lizard is present within habitat located along the western boundary of the Application Site in areas that are currently used for storage of materials and containers. These locations provide some cover for foraging and hibernation in the grassland and hedgerow habitats and basking on stored materials. The rhyme located to the west of this hedgerow also provides potentially suitable habitat for Barred Grass Snake.

Hazel Dormouse

No records of Hazel Dormouse within the desk study area were returned during the BRERC data search.

The hedgerow along the western boundary of the Application Site is largely dominated by Blackthorn. As Dormice require a range of different foraging sources throughout the year (Bright, Morris & Mitchell Jones 2006), the lack of species diversity limits the potential for the species to be present at this location. In addition, connectivity to more optimal woodland habitats in the wider landscape is poor with the nearest area of woodland falling over 600m away to the east with the industrial estate, roads and limited woody vegetation in between. Overall, the risk of Hazel Dormouse being present is considered reasonably unlikely due to the lack of suitable habitat, and therefore this species is not considered further within the report.

### Badgers

The BRERC data search returned 16 no. records of Badger within the desk study area. The closest recorded badger was 1 km to the S of the Application Site.

No Badger setts or signs of Badger foraging were identified on the Application Site. It is considered that this species could occasionally forage within the grassland along the western boundary of the Application Site although given the high level of disturbance from the industrial site this is considered reasonably unlikely. Risks of impacts on Badgers as a result of works within the Application Site itself are considered reasonably unlikely and therefore this species has not been considered further within this report.

### Birds

The BRERC desk study returned records of bird species within 2km. The records included some Birds of Conservation Concern (BoCC) Red-listed species such as House Sparrow *Passer domesticus*, Starling *Sturnus vulgaris*, Grey Wagtail *Motacilla cinerea*, Lapwing *Vanellus vanellus*, Mistle Thrush *Turdus viscivorus*, Skylark *Alauda arvensis*, Linnet *Carduelis cannabina*, Woodcock *Scolopax rusticola*, Fieldfare *Turdus pilaris* and Grasshopper Warbler *Locustella naevia*, a number of these being associated with open farmland. A number of BoCC Amber-listed birds associated with wetland and aquatic habitats were also returned during the desk study, such as Kingfisher *Alcedo atthis*, Red-shank *Tringa totanus*, Snipe *Gallinago gallinago*, Shelduck *Tadorna tadorna* and Reed Bunting *Emberiza schoeniclus*. Furthermore, a number of records of species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were returned within the desk study. These included Redwing *Turdus iliacus*, Green Sandpiper *Tringa ochropus*, Kestrel *Falco tinnuculus*, Merlin *Falco columbarius*, Hobby *Falco subbuteo*, and Barn Owl *Tyto alba*.

Species recorded on or adjacent to the Application Site during the survey visit are displayed in Table 5 below along with their conservation status. It is important to note that birds were not the target of this survey visit and that these incidental records should not be taken as a full species list for the Application Site.

*Table 5: Bird species recorded during the site visit along with their conservation status*

COMMON NAME	SYSTEMATIC NAME	CONSERVATION STATUS*
<i>Pied Wagtail</i>	<i>Motacilla alba</i>	BOCC Green
<i>Starling</i>	<i>Sturnus vulgaris</i>	S41, BOCC Red
<i>Robin</i>	<i>Erithacus rubecula</i>	BOCC Green
<i>Linnet</i>	<i>Linaria cannabina</i>	BOCC Red
<i>Mistle Thrush</i>	<i>Turdus viscivorus</i>	BOCC Red
<i>Redwing</i>	<i>Turdus iliacus</i>	Sch 1, BOCC Red
<i>Wren</i>	<i>Troglodytes troglodytes</i>	BOCC Green
<i>Mallard</i>	<i>Anas platyrhynchos</i>	BOCC Amber

\* Sch1: listed on Schedule 1 of The Wildlife and Countryside Act (1981)  
 S41: listed on Section 41 of the NERC Act (2006) as a species of principal importance  
 BoCC: Birds of Conservation Concern (Eaton et al., 2015) – green, amber or red listed  
 Devon Pr Sp: Devon Local BAP Priority Species

Mistle Thrush, Redwing, Robin and Wren were all noted within the hedgerows along the western boundary of the Application Site and a Mallard was noted on the rhyne beyond this hedgerow to the south of the Application Site. Flocks of Starling were present on the overhead cables to the west of the rhyne off-site. A Pied Wagtail was noted on the roof of the adjacent industrial unit (known as Phase 5).

Schedule 1 bird species such as Redwing are also protected against disturbance when nesting, however, as this species generally only occurs as a migrant in winter, disturbance during the breeding season is unlikely to be an issue. (www.RSPB.org.uk, 2021).

Invertebrates

The Application Site did not contain the types of habitat mosaics normally associated with notable invertebrate assemblages. Therefore, this species group is not considered further within this report.

3.2.3 Ecological Evaluation

Table 6 below provides an analysis of the value of ecological receptors described above. The valuation of the receptor takes into account factors such as legal protection, local and national conservation status, population trends, range and distribution, diversity, connectivity and rarity. Importance is defined using a geographical frame of reference as per CIEEM guidelines (2018).

Table 6: Ecological evaluation

HABITAT	VALUE	REASON
<i>Designated Sites and priority habitats</i>		

HABITAT	VALUE	REASON
North Somerset and Mendip Bats SAC Site occurs within Band C.	<i>International</i>	<i>European Designated Site.</i>
<i>Biddle Street Yatton SSSI</i>	<i>National</i>	<i>Designated under national legislation (400m to the south).</i>
<i>Tickenham, Nailsea &amp; Kenn Moors SSSI</i>	<i>National</i>	<i>Designated under national legislation but is located 1.25km to the east. No impact pathways identified therefore, not considered further in this report.</i>
<i>Puxton Moor SSSI</i>	<i>National</i>	<i>Designated under national legislation but is found 2km to the south. No impact pathways identified therefore, not considered further in this report.</i>
<i>King's Wood &amp; Urchin Wood Site SSSI</i>	<i>National</i>	<i>Designated under national legislation but is found 3.2km to the east. Forms part of the North Somerset and Mendip Bats SAC and therefore impacts assessed in the context of the SAC designation and bats. Other impacts on this SSSI not anticipated therefore, not considered further in this report.</i>
<i>Cheddar Valley Railway Walk LNR</i>	<i>National</i>	<i>Designated under national legislation but is found 660m away and impacts unlikely. Therefore, not considered further in this report.</i>
<i>Cadbury Hill LNR</i>	<i>National</i>	<i>Designated under national legislation but is found 2.3km away and impacts unlikely. Therefore, not considered further in this report.</i>
<i>Congresbury Yeo, Adjacent Land and Rhynes LWS</i>	<i>County</i>	<i>Local wildlife sites are designated on account of designated on account of the flora and fauna they support and represent some of the best wildlife sites in the County (approx. 150m to the south).</i>
<i>Horsecastle Pond LWS</i>	<i>County</i>	<i>Local wildlife sites are designated on account of designated on account of the flora and fauna they support and represent some of the best wildlife sites in the County. However, this site falls 580m away and impacts unlikely. Therefore, not considered further in this report.</i>

HABITAT	VALUE	REASON
<i>Coastal Floodplain and Grazing Marsh Priority Habitat</i>	<i>Local</i>	<i>Widespread habitat in the surrounding landscape and across Somerset.</i>
<i>Habitats</i>		
<i>u1c Artificial unvegetated, unsealed surface</i>	<i>Negligible</i>	<i>No intrinsic wildlife value.</i>
<i>h2a Hedgerow (Priority Habitat)</i>	<i>Local</i>	<i>Provides habitat for nesting birds and shelter for small mammals, offers some connectivity to surrounding habitats and landscape but limited somewhat as located on the edge of an industrial estate.</i>
<i>g3c Other neutral grassland</i>	<i>Negligible</i>	<i>Common and widespread habitat.</i>
<i>r1 Standing open water and canals</i>	<i>Local</i>	<i>Watercourses provide habitat connectivity and have the potential to support a range of species.</i>
<i>Protected/priority species</i>		
<i>Plants</i>	<i>Negligible</i>	<i>No notable plants found to be present.</i>
<i>Bats (commuting and foraging habitat only)</i>	<i>Site</i>	<i>Adjacent hedgerow offers some potential for foraging and commuting but is sub-optimal due to location in an industrial environment.</i>
<i>Water Vole and Otter</i>	<i>Negligible</i>	<i>Presence unlikely due to unsuitability of habitat. Not considered further in this report.</i>
<i>Amphibians</i>	<i>Site</i>	<i>Some potential within hedgerow and rhyne and adjacent strip of grassland.</i>
<i>Reptiles</i>	<i>Site</i>	<i>Some potential within hedgerow and rhyne and adjacent strip of grassland</i>
<i>Hazel Dormouse</i>	<i>Negligible</i>	<i>Presence unlikely due to unsuitability of habitat. Not considered further in this report.</i>
<i>Badgers</i>	<i>Negligible</i>	<i>Badgers could potentially use the hedgerow and adjacent vegetation for foraging but overall these features provide limited opportunities compared to the wider farmed landscape. The species is therefore not considered further.</i>
<i>Birds</i>	<i>Site</i>	<i>Some potential for nesting birds within the hedgerow. Given its location in industrial area it is considered unlikely that this feature supports any remarkable bird assemblages.</i>

HABITAT	VALUE	REASON
<i>Invertebrates</i>	<i>Negligible</i>	<i>Presence of notable invertebrate assemblages unlikely due to unsuitability of habitat. Not considered further in this report.</i>



## 4 IMPACT ASSESSMENT AND MITIGATION / AVOIDANCE MEASURES

Measures to mitigate or avoid impacts on habitats and protected species are provided in the following sections.

### 4.1 CEcMP

A CEcMP should be produced (to form part of or sit alongside the overarching contractor’s CEMP) to ensure that ecological mitigation measures as described within this report are delivered during the construction phase. These include measures required to avoid and minimise impacts on ecological features, measures which need to be adhered to for legal reasons and measures which should be implemented as environmental good practice.

The CEcMP should include details of measures to be implemented in advance of (or at the immediate commencement of) the main construction period (such as works associated with any advanced vegetation clearance) and measures which must be implemented throughout the main construction phase.

The following should also be included within the CEcMP:

- Identification of ecological protection zones where works are to be restricted;
- Areas where protective fencing is to be installed and maintained;
- Ecological working methodologies to avoid/minimise impacts on sensitive ecological receptors;
- Timing of works to avoid/minimise impacts on sensitive ecological receptors;
- Where and when ecological supervision and/or toolbox talks to site personnel are required;
- Responsible persons.

### 4.2 DESIGNATED SITES

RECOMMENDATIONS	
• Strict Pollution Prevention measures to be implemented during the construction phase to avoid water quality impacts on the Biddle Street SSSI and the Congresbury Yeo, adjacent Land and Rhynes LWS.	
• Wastewater discharge should be carefully considered so that water quality impacts on the Biddle Street SSSI or the Congresbury Yeo, adjacent Land and Rhynes LWS are avoided once the Site is operational.	
Requires additional work pre-planning	NO
Requires action during construction	YES
Requires action post-development	NO

Please note that impacts and mitigation measures in relation to the North Somerset and Mendip bat SAC are discussed separately in section 4.4.1 below.

#### Construction

Direct impacts to the Biddle Street SSSI and Congresbury Yeo, Adjacent Land and Rhynes LWS are considered unlikely as a result of the proposed works. However, ordnance survey mapping suggests that the rhyne adjacent to the Application Site could be connected to the network of waterbodies associated with these designated sites. Therefore, there are potential water quality impacts (e.g. run-off from the Application Site) on the important aquatic communities present within the SSSI and LWS. Strict precautionary measures should therefore be adopted during construction following standard Pollution Prevention guidelines

#### Operation

Similarly, inappropriate discharge of wastewater could impact upon Biddle Street SSSI and Congresbury Yeo, Adjacent Land and Rhynes LWS and therefore careful consideration should be given to wastewater discharge to avoid impacts on these designations once the Site is operational.

No impacts as a result of the proposals are anticipated to any of the other designated sites mentioned earlier in this report (both statutory and non-statutory) given their distance from the Application Site.

Coastal Floodplain and Grazing Marsh Priority Habitat is located in the surrounding countryside around the industrial site. Biddle Street SSSI and Congresbury Yeo, Adjacent Land and Rhynes LWS encompass this habitat and have been discussed separately above. No other impacts on the Coastal Floodplain and Grazing Marsh habitat are anticipated as a result of the proposed development.

The Application Site lies within several SSSI Impact Risk Zones, with the development proposals meeting the criteria for Natural England consultation (large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m<sup>2</sup>). It is therefore likely that North Somerset Council will look to consult Natural England on this matter.

### 4.3 HABITATS

RECOMMENDATIONS		
<ul style="list-style-type: none"> <li>Hedgerows, the rhyne and adjacent vegetation should be protected throughout the construction period via erection of Heras fencing with an attached mesh material to provide a protected corridor during construction.</li> <li>Strict Pollution Prevention Guidelines to be followed during the construction phase to prevent impacts to the rhyne adjacent to the Site.</li> </ul>		
Requires additional work pre-planning		<b>NO</b>
Requires action during construction	<b>YES</b>	
Requires action post-development		<b>NO</b>

#### Construction

No direct impacts are anticipated to the hedgerow along the western boundary of the Application Site as a result of the proposals. All hedgerows within close proximity to the area of works should be protected from accidental damage through the use of appropriate protective fencing during the construction phase.

Strict Pollution Prevention measures should be adopted during the construction phase to reduce the likelihood of impacts to the adjacent rhyne.

Please note that protected species could potentially use habitats considered to be of low intrinsic ecological value. Where this is the case recommendations have been provided in the relevant species sections below.

#### Operation

No impacts upon habitats are anticipated once the Site is operational.

## 4.4 SPECIES

### 4.4.1 Bats

RECOMMENDATIONS	
<ul style="list-style-type: none"> <li>Erection of Heras fencing with an attached mesh material to provide a protected corridor along the hedgerow to the west during construction.</li> <li>Night-time construction work during the active bat season (April to November) should be avoided. Where unavoidable, lighting should be directional and, on a timer, to limit light spill onto the hedgerow and rhyne.</li> <li>Preparation of a robust lighting strategy that indicates there will be no lighting impacts above 0.5 LUX on the western boundary would constitute in our professional opinion suitably robust mitigation of impacts.</li> <li>A vegetated green buffer of at least 2 m along the western boundary adjacent to the Application Site should be maintained and a post and rail fence should be erected between the Application Site and this feature to protect it in perpetuity.</li> </ul>	
Requires additional work pre-planning	<b>NO</b>
Requires action during construction	<b>YES</b>
Requires action post-development	<b>YES</b>

All bats and their roosts are protected under UK and European Legislation including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. Further information is provided in Appendix I. No impacts to roosting bats are anticipated.

#### North Somerset and Mendip bats SAC

The Application Site falls within Consultation Zone C of the North Somerset and Mendip SAC. A Supplementary Planning Document (SPD) has been produced to provide guidance to developers should a site fall within this zone (North Somerset Council 2018).

Within the SPD the following is stated:

#### *'Proposed developments with minor impacts*

*4.17 In circumstances of overall less potential impact, especially in Band C, mitigation may be put forward without the need for a full season's survey. (See Annex 3). This approach will only be suitable where it can be clearly demonstrated that the impacts of a proposed development are proven to be minor and can be fully mitigated without an impact upon the existing (& likely) SAC bat habitat. In order to adopt this approach, it will be necessary for a suitably qualified ecologist to visit the site and prepare a report with an assessment of existing (& likely) SAC bat habitat. The information from this report should provide the basis to determine appropriate mitigation measures associated with the proposed development. The proposed mitigation should clearly demonstrate that there will be no interruption of suitable SAC bat commut-*

*ing habitat. Replacement of foraging habitat may be required as appropriate.*

The surveys currently being undertaken by Burton Reid Associates in the wider area and Bat Assessment report produced by The Landmark Practice (2013) for a wider survey area encompassing the current Application Site concluded that the site does not appear to be used regularly by horseshoe bats (Greater or Lesser), nor does it provide them with an important foraging resource. Further surveys to determine usage of the Application Site itself by horseshoe bats was not considered necessary in this instance. As the Application Site is comprised predominantly of bare exposed substrate and is well-lit and regularly disturbed by activities related to the operation of the industrial site it is considered reasonably unlikely that horseshoe bats would use the Application Site for any sustained period of time for foraging.

The hedgerow located to the west of the Application Site is considered to provide suitability for commuting bats, however its potential to be used as a feature of strategic importance for Greater Horseshoe bats is diminished by its distance from the SAC and position adjacent to the industrial site and associated disturbance.

In addition, no direct impacts (clearance/removal) of the hedgerow are anticipated as a result of the proposals.

#### Construction

It is recommended that a dark buffer zone between the construction zone and the adjacent hedgerow is established during the active bat season (April to November). Night-time construction work during the active bat season (April to November) should be avoided. Where unavoidable, lighting should be directional and, on a timer, to limit light spill onto the hedgerow and rhyne.

Erection of Heras fencing with an attached mesh material will act to provide a protected corridor along the hedgerow to the west during construction.

#### Operation

Implementation of a robust lighting strategy that indicates there will be no lighting impacts above 0.5 LUX on the western boundary would constitute in our professional opinion suitably robust mitigation of impacts. In addition, a vegetated green buffer of at least 2 m will be retained along the western boundary adjacent to the Application Site. This should be protected by a post and rail fence. Retaining a dark buffer zone between the Application Site and the adjacent hedgerow/rhyne will ensure that any commuting bats, if present, can continue to use the hedgerows and rhyne as a linear commuting feature and for foraging.

On this basis, there are not anticipated to be any significant impacts on horseshoe bat populations associated with the SAC due to interruption of foraging or commuting habitat.

Please note the above measures will also ensure that impacts on any other bat species using the hedgerow/rhyne

for foraging/commuting will be avoided.

#### 4.4.2 Amphibians and reptiles

RECOMMENDATIONS		
<ul style="list-style-type: none"> <li>No clearance of grassland or hedgerow habitats along the western edge of the Application Site to be permitted during construction or operational phases.</li> <li>No additional storage of materials within adjacent grassland habitats.</li> <li>Retained hedgerows and grassland within close proximity to the area of works should be protected from accidental damage through use of appropriate protective fencing during the construction phase.</li> </ul>		
Requires additional work pre-planning		NO
Requires action during construction	YES	
Requires action post-development		NO

Great Crested Newt and their habitats are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended) and all species of reptile in the UK are afforded protection under the Wildlife and Countryside Act 1981 (as amended). Further information is provided in Appendix I.

#### Construction

Although no evidence of Great Crested Newts was identified during eDNA surveys in rhynes connected to the Application Site the following precautionary recommendations should be followed;

No clearance of grassland or hedgerow habitats to be permitted during construction or operational phases along the western boundary within the existing storage area and;

No additional storage of materials to be permitted within this area;

Retained hedgerows and grassland within close proximity to the area of works should be protected from accidental damage through use of appropriate protective fencing during the construction phase.

#### Operation

No impacts upon amphibians and reptiles are anticipated once the Application Site is operational.



### 4.4.3 Breeding Birds

RECOMMENDATIONS	
<ul style="list-style-type: none"> <li>Erection of Heras fencing with an attached mesh material will act to provide a protected corridor along the hedgerow to the west during construction.</li> <li>No additional storage of materials to be permitted within adjacent storage area.</li> <li>Night-time construction work during the breeding bird season (March to August) will be avoided where possible.</li> </ul>	
Requires additional work pre-planning	<b>NO</b>
Requires action during construction	<b>YES</b>
Requires action post-development	<b>NO</b>

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). Further information is provided in Appendix I.

#### Construction

The hedgerow located immediately offsite to the west could potentially be used by breeding birds therefore the following precautionary measures should be followed during construction:

- Erection of Heras fencing with an attached mesh material will act to provide a protected corridor along the hedgerow to the west during construction.
- No additional storage of materials to be permitted within adjacent existing storage area..
- Night-time construction work during the breeding bird season (March to August) will be avoided where possible.

#### Operation

No impacts upon breeding birds are anticipated once the application Site is operational.

## 5 BIODIVERSITY ENHANCEMENT MEASURES

The National Planning Policy Framework (NPPF 2021) states that the planning system should 'opportunities to improve biodiversity in and around developments should be integrated as part of their design'.


In addition, the North Somerset Core Strategy Policy CS4: Nature conservation states the following:

*The biodiversity of North Somerset will be maintained and enhanced by:*

*2) seeking to ensure that new development is designed to maximise benefits to biodiversity, incorporating, safeguarding and enhancing natural habitats and features and adding to them where possible, particularly networks of habitats. A net loss of biodiversity interest should be avoided, and a net gain achieved where possible;*

Therefore, the following enhancements are recommended for inclusion at the Site during the construction phase:

Table 7: Proposed ecological enhancements

Enhancement	
<p>Installation of 5 bird boxes within the hedgerow to the west of the Application Site</p> <p>5 x Traditional Wooden Bird Nest Box</p> <p>(<a href="https://www.nhbs.com/traditional-wooden-bird-nest-box">https://www.nhbs.com/traditional-wooden-bird-nest-box</a>)</p>	

## Enhancement

Installation of 2 bat boxes on the western facing elevation of the new industrial unit to provide roosting habitat for bats.

2 x Beaumaris Woodstone Bat Box

(<https://www.nhbs.com/beaumaris-woodstone-bat-box>)



The vegetated buffer to the west of the Application Site could be used as a "wildlife zone" sown with a wildflower meadow grassland seed mix. This would provide opportunities for a range of species groups, including bats, birds and invertebrates.



## 6 REFERENCES

- Bat Conservation Trust (2018) *Guidance Note 08/18 Bats and Artificial Lighting in the UK, Bats and the Built Environment Series*. ILP
- Bright, Morris and Mitchell-Jones (2006) *The Dormouse Conservation Handbook*. English Nature.
- British Standards Institution (2013) *BS 42020:2013 Biodiversity – Code of Practice for Planning and Development*. BS Standards Limited: London.
- Burrows, L. (2018) *North Somerset and Mendip Bats Special Area of Conservation (SAC) Guidance on Development: Supplementary Planning Document*. Somerset County Council.
- Chanin, P. (2003). *Ecology of the European Otter. Conserving Natura 2000 Rivers Ecology Series No. 10*. English Nature, Peterborough.
- CIEEM (2016) *Biodiversity Net Gain – Good Practice Principles for Development*, CIEEM, CIRIA, IEMA
- CIEEM (2019) *Biodiversity Net Gain – Good Practice Principles for Development – A Practical Guide*. CIEEM London
- CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, freshwater and coastal*. CIEEM: Winchester.
- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*. CIEEM: Winchester.
- CIEEM (2017) *Guidelines for Ecological Report Writing*. CIEEM: Winchester.
- Collins, J. (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn)*.
- Dean, M., Strachan, R., Gow, D., & Andrews, R., (2016), *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Handbook Guidance Series)*. Eds Fiona Mathews and Paul Chanin. The Mammal Society, London
- Defra (2007) *Hedgerow Survey Handbook. A standard procedure for local surveys in the UK*. Defra, London.
- Eaton M.A., Aebischer N.J., Brown A.F., Hearn R.D., Lock L., Musgrove A.J., Noble D.G., Stroud D.A. and Gregory R.D. (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. British Birds 108, 708–746.
- Flowers, J. and Jackson, C. (Coordinators) (2017) *Yatton Neighbourhood Development Plan for the Period 2017-2026*. Yatton Parish Council.
- Gunnel, K.; Williams, C. and Murphy, B. (2013) *Designing for Biodiversity: A technical guide for new and existing buildings*.

*2nd Edition*. RIBA Publishing.

JNCC (2010) *Handbook for Phase I Habitat Survey. A technique for Environmental Audit*. 2010. Revised Edition. JNCC.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), *Great Crested Newt Conservation Handbook*, Froglife, Halesworth.

Large, B. (2000) *Somerset Notable Species Dictionary, Fifth Edition, Final Report*. Somerset Environmental Records Centre.

Ministry for Housing, Communities and Local Government (2019) *National Planning Policy Framework*. MHCLG.

Natural England (2019) *The Biodiversity Metric, Beta Test (Calculation Tool, Technical Supplement and User Guide)* Natural England and Other Parties.

Norris, G. (2016) *Phase 4, Smart Systems, Yatton, Ecological Appraisal*. Wildlife Service, Bristol

Norris, G. (2016) *Phase 5, Smart Systems, Yatton, Ecological Appraisal*. Wildlife Service, Bristol

North Somerset Council (2017) *Core Strategy*. North Somerset Council.

North Somerset Council (2005) *Biodiversity and trees: Supplementary planning document for developments within North Somerset*. North Somerset Council

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000 (2000) *Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*)*. Herpetological Journal 10(4), 143-155

The Landmark Practice (2012) *Ecological Assessment for Smart Systems Ltd*.

The Landmark Practice (2013) *Bat Assessment for Smart Systems Ltd*.

Wild Service (2016) *Phase 4 Smart Systems Yatton Ecological Appraisal*

Wild Service (2016) *Phase 5 Smart Systems Yatton Ecological Appraisal*

#### Websites

[www.rspb.org.uk/birds-and-wildlife/natures-home-magazine/birds-and-wildlife-articles/migration/migratory-bird-stories/redwing-migration/](http://www.rspb.org.uk/birds-and-wildlife/natures-home-magazine/birds-and-wildlife-articles/migration/migratory-bird-stories/redwing-migration/) (2021)

## 7 APPENDICES

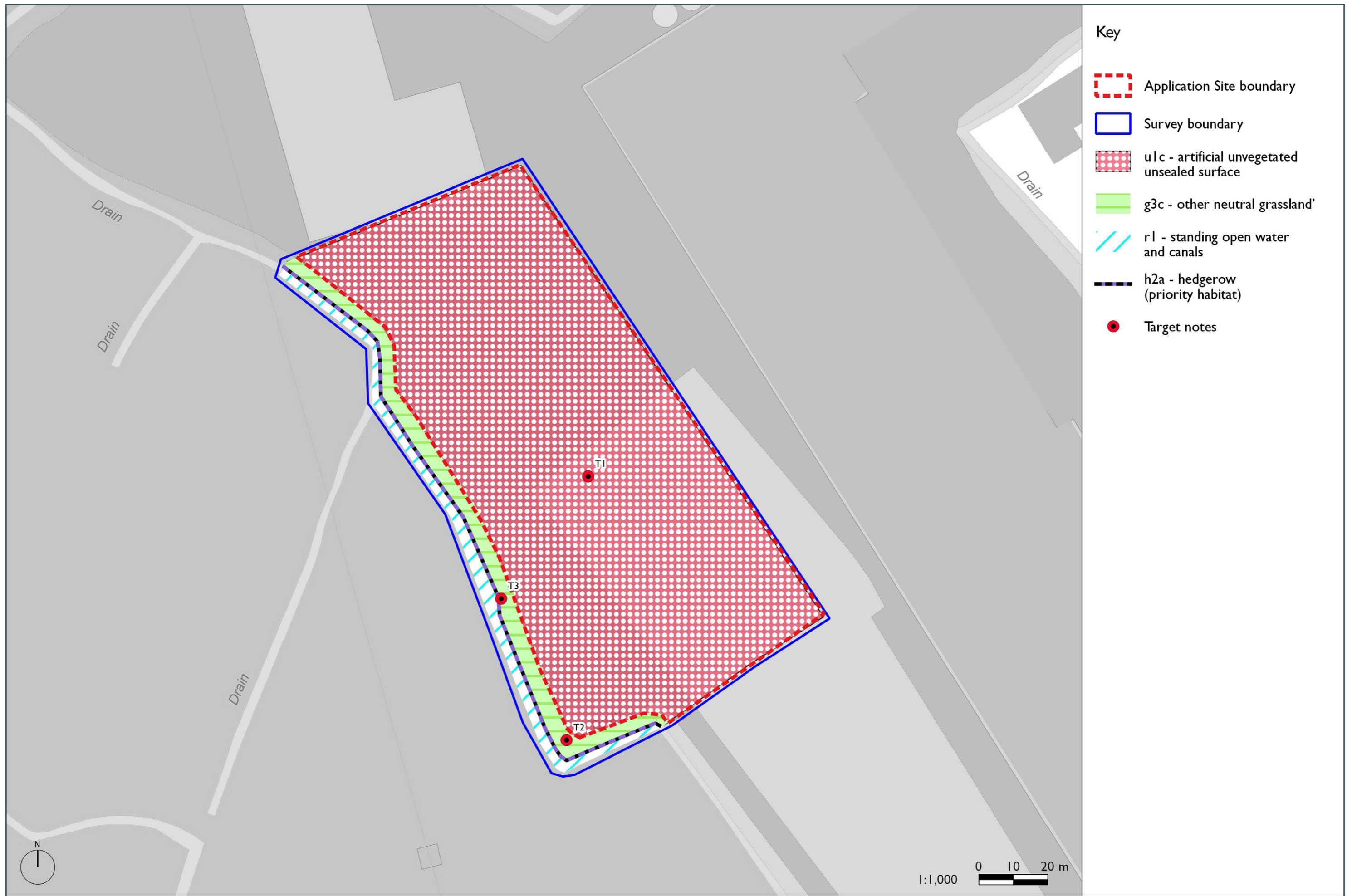


## Appendix I: Legislation and Planning Policy

This report has been produced with reference to the following relevant wildlife and environmental legislation and planning policy.

LEGISLATION/PLANNING POLICY	LINK
The Conservation of Habitats and Species Regulations 2017 (as amended)	<a href="https://www.legislation.gov.uk/uksi/2017/1012/contents/made">https://www.legislation.gov.uk/uksi/2017/1012/contents/made</a>
The Wildlife and Countryside Act (W&CA) 1981 (as amended)	<a href="http://www.legislation.gov.uk/ukpga/1981/69/contents">http://www.legislation.gov.uk/ukpga/1981/69/contents</a>
Countryside and Rights of Way (CRoW) Act 2000	<a href="http://www.legislation.gov.uk/ukpga/2000/37/contents">http://www.legislation.gov.uk/ukpga/2000/37/contents</a>
Natural Environment and Rural Communities (NERC) Act 2006	<a href="http://www.legislation.gov.uk/ukpga/2006/16/contents">http://www.legislation.gov.uk/ukpga/2006/16/contents</a>
OCPM Circular 06/2005: Biodiversity and Geological Conservation	<a href="https://www.gov.uk/government/publications/biodiversity-and-geological-conservation-circular-06-2005">https://www.gov.uk/government/publications/biodiversity-and-geological-conservation-circular-06-2005</a>
North Somerset Council Core Strategy	<a href="https://www.n-somerset.gov.uk/sites/default/files/2020-07/core%20strategy.pdf">https://www.n-somerset.gov.uk/sites/default/files/2020-07/core%20strategy.pdf</a>
Yatton Neighbourhood Plan for the Period 2017-2026	<a href="https://www.n-somerset.gov.uk/sites/default/files/2020-04/Yatton%20neighbourhood%20plan.pdf">https://www.n-somerset.gov.uk/sites/default/files/2020-04/Yatton%20neighbourhood%20plan.pdf</a>
UK Post 2010 Biodiversity Framework	<a href="http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf">http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf</a>
National Planning Policy Framework	<a href="https://www.gov.uk/government/publications/national-planning-policy-framework--2">https://www.gov.uk/government/publications/national-planning-policy-framework--2</a>

The most relevant legislation pertaining to each of the protected species described within this document is given in the table below.



**Key**

- Application Site boundary
- Survey boundary
- u1c - artificial unvegetated unsealed surface
- g3c - other neutral grassland'
- r1 - standing open water and canals
- h2a - hedgerow (priority habitat)
- Target notes

SPECIES	LEGISLATION	PROTECTION
<i>Bats (all species)</i>	Sch 5 of The Wildlife and Countryside Act 1981 (as amended) Conservation of Habitats and Species Regulations 2017 (as amended)	It is an offence to: <ul style="list-style-type: none"> <li>• Intentionally or deliberately take, kill or injure a bat;</li> <li>• Damage, destroy or obstruct access to bat roosts;</li> <li>• Deliberately disturb bats.</li> </ul>
<i>Hazel Dormouse</i>	Sch 5 of The Wildlife and Countryside Act 1981 (as amended) Conservation of Habitats and Species Regulations 2017 (as amended)	It is an offence to: <ul style="list-style-type: none"> <li>• Intentionally or deliberately take, kill or injure;</li> <li>• Damage, destroy or obstruct access to any structure or place used for shelter or protection;</li> <li>• Disturb an animal occupying such a structure or place.</li> </ul>
<i>Great Crested Newt</i>	Sch 5 of The Wildlife and Countryside Act 1981 (as amended)	<i>It is an offence to:</i> <ul style="list-style-type: none"> <li>• Intentionally or deliberately take, kill or injure;</li> <li>• Damage, destroy or obstruct access to any structure or place used for shelter or protection;</li> <li>• Disturb an animal occupying such a structure or place.</li> </ul>
<i>Reptiles*</i>	Sch 5 of The Wildlife and Countryside Act 1981 (as amended)	Part of sub-section 9(1) and all of sub-section 9(5) apply; <ul style="list-style-type: none"> <li>• Prohibits the intentional killing and injuring of reptile species.</li> </ul>
Badgers	The Protection of Badgers Act 1992	It is an offence to: <ul style="list-style-type: none"> <li>• intentionally or recklessly damage, destroy or obstruct access to a sett; and</li> </ul> to disturb a Badger whilst it is occupying a sett.
Nesting birds (all species)	The Wildlife and Countryside Act 1981 (as amended)	It is an offence to: <ul style="list-style-type: none"> <li>• Kill, injure, or take any wild bird;</li> <li>• Take, damage or destroy the nest of any wild bird while that nest is in use or being built;</li> <li>• Take or destroy an egg of any wild bird.</li> </ul>

\* Excludes Sand Lizard and Smooth Snake for which a higher level of protection is granted. These species were not considered here, as no suitable habitat was available for them and the Site falls outside of their recorded range.

## Appendix II: Plant Species Lists

\* DAFOR scale of relative abundance: Dominant, Abundant, Frequent, Occasional or Rare.

### **h2a: Hedgerow (Priority habitat)**

COMMON NAME	LATIN NAME	ABUNDANCE (DAFOR)
Blackthorn	<i>Prunus spinosa</i>	A
Bramble	<i>Rubus fruticosus agg.</i>	A
Dog-rose	<i>Rosa canina</i>	A
Ivy	<i>Hedera helix</i>	A
Hawthorn	<i>Crataegus monogyna</i>	A
Hogweed	<i>Heracleum sphondylium</i>	A
Wild Parsnip	<i>Pastinaca sativa</i>	F
Pignut	<i>Conopodium majus</i>	O
Prickly Sow-thistle	<i>Sonchus asper</i>	O
Common Nettle	<i>Urtica dioica</i>	O
Common Figwort	<i>Scrophularia nodosa</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	O
Perennial Rye-grass	<i>Lolium perenne</i>	O
Willow sp.	<i>Salix sp.</i>	R

### **r1 Standing open water and canals**

COMMON NAME	LATIN NAME	ABUNDANCE (DAFOR)
Duckweed sp.	<i>Lemnoideae sp.</i>	D

### **g3c Other neutral grassland**

COMMON NAME	LATIN NAME	ABUNDANCE (DAFOR)
Perennial Rye-grass	<i>Lolium perenne</i>	A
Cock's-foot	<i>Dactylis glomerata</i>	A
Creeping Thistle	<i>Cirsium arvense</i>	LA
Silverweed	<i>Potentilla anserina</i>	LA
Creeping Bent	<i>Agrostis stolonifera</i>	F
Annual Meadow-grass	<i>Poa annua</i>	F
Hogweed	<i>Heracleum sphondylium</i>	F
Cow Parsley	<i>Anthriscus sylvestris</i>	F
Wild Parsnip	<i>Pastinaca sativa</i>	F

Bristly Oxtongue	<i>Picris echioides</i>	F
Prickly Lettuce	<i>Lactuca serriola</i>	F
Common Groundsel	<i>Senecio vulgaris</i>	O
Self-heal	<i>Prunella vulgaris</i>	O
Field Bindweed	<i>Convolvulus arvensis</i>	O
Daisy	<i>Bellis perennis</i>	O
Common Nettle	<i>Urtica dioica</i>	O
Common Ragwort	<i>Senecio jacobaea</i>	O
Nipplewort	<i>Lapsana communis</i>	O
Dandelion	<i>Taraxacum agg.</i>	O
Willowherb sp.	<i>Epilobium sp.</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	O
Common Calamint	<i>Clinopodium ascendens</i>	R
Ground-ivy	<i>Glechoma hederacea</i>	R
Common Vetch	<i>Vicia sativa subsp. segetalis</i>	R



# CONTACT US

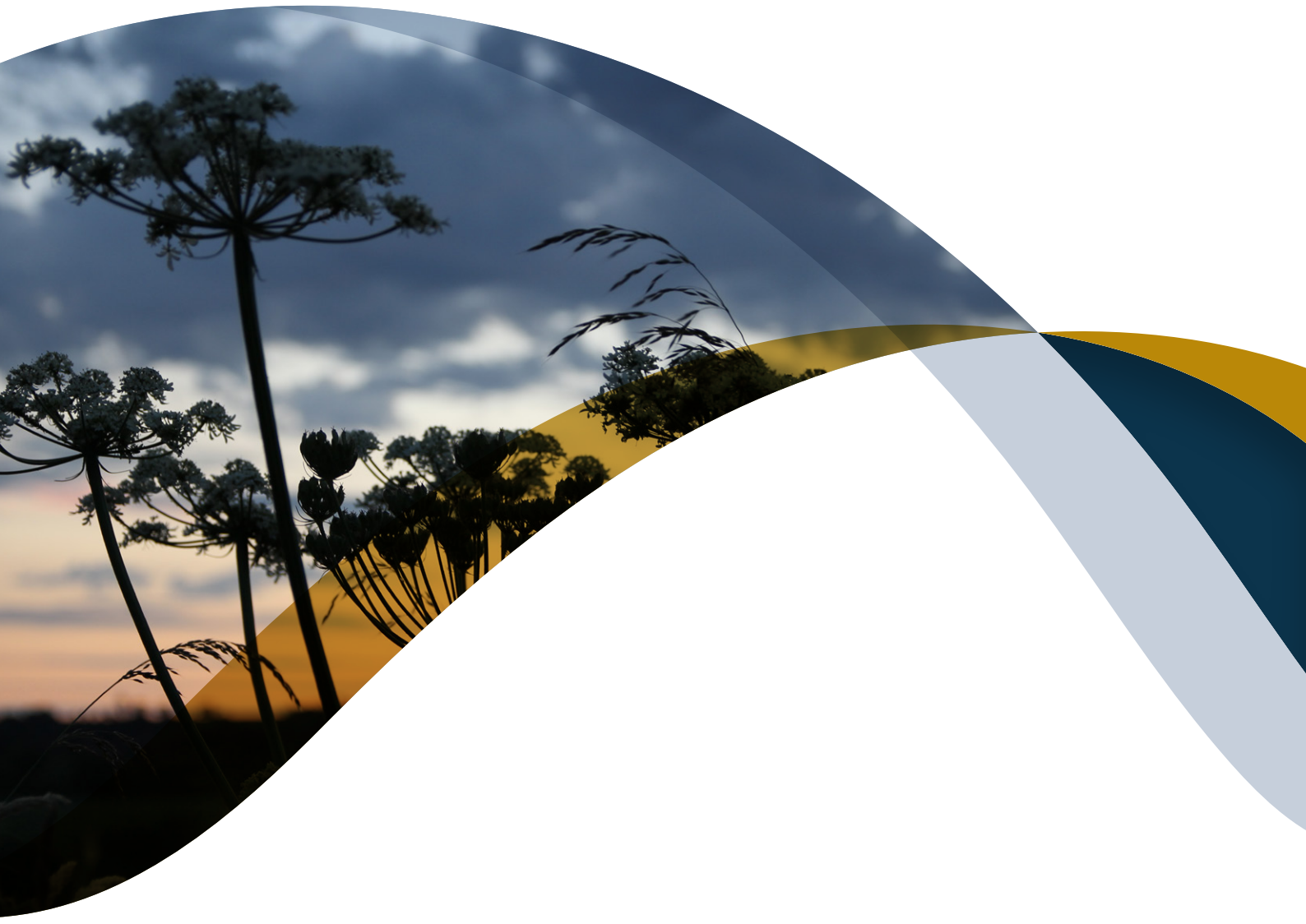
Registered Office  
Suite 8, Buckfastleigh Business Centre  
33 Chapel Street, Buckfastleigh, Devon, TQ11 0AB  
Holt  
Studio 18, The Glove Factory Studios  
1 Brook Lane, Holt, Bradford-on-Avon, BA14 6RL



Registered Office 01364 701150  
Holt 01225 251600





[hello@burtonreid.co.uk](mailto:hello@burtonreid.co.uk)  
[www.burtonreid.co.uk](http://www.burtonreid.co.uk)





## Appendix IV: Target Notes for Habitat Map

(See Appendix III for location references)

TARGET NOTE	DESCRIPTION	IMAGE
1	Bare earth ready for development	
2	Narrow strip of grassland with low potential for reptiles and amphibians	

3

Hedgerows adjacent rhyne to the west of the Application Site



## COPYRIGHT

This report is issued to the client for their sole use and for the intended purpose as stated in the agreement between the client and Burton Reid Associates or else as set out within this report. This report may not be relied upon by any other party without the express written agreement of Burton Reid Associates. The use of this report by unauthorised third parties is at their own risk and Burton Reid Associates accepts no duty of care to any such third party.