



East Lancashire Paper Mill, Radcliffe

Bat Survey



Homes & Communities Agency

October 2017

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Salford Quays, Manchester, M17 1HH

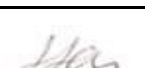
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Executive Summary

Contents	Summary
Site Location	East Lancashire Paper Mill, Radcliffe (approximately 4.8km south of Bury in Greater Manchester, National Grid Reference: SD 79296 07445).
Proposals	Residential development, providing up to 450 homes which may potentially include a new secondary school. At the time of writing no detailed proposed development layout of the site was available, however a woodland clearance plan has been produced.
Existing Site Information	WYG's 2016 Extended Phase 1 Habitat Survey Report – includes a desktop study; daytime external and internal inspections of buildings; and ground based inspection of trees.
Scope of this Survey(s)	• Emergence/re-entry surveys of buildings B1, B3 and B4; • Activity transect surveys (one visit per month between April and September); and • Static monitoring of 12 locations (referenced S1-12) with two different locations monitored every month.
Results	No evidence of roosting on site was identified during the surveys of buildings B1, B3 and B4. At least three species of bat were recorded on site during static monitoring surveys (common and soprano pipistrelle and an unconfirmed Myotis Species) with two more species recorded during emergence/re-entry or transect surveys (brown long-eared and noctule). The bat activity transects identified that bat activity was highest in the east of the site, with the reservoir providing foraging for Daubenton's bat. Lower levels of bat activity were recorded over areas of willow and bramble scrub.
Recommendations	There is potential for impacts on foraging and commuting bats through habitat loss, severance, artificial lighting and wider anthropogenic disturbance. To minimise impacts and enhance the site, recommendations are as follows: • Reasonable avoidance measures prior to and during demolition/refurbishment works of buildings (between May and August); • The provision of bat boxes and / or tubes; • A wildlife sensitive lighting scheme; • The landscaping scheme to provide shelter, foraging opportunities and connected dark corridors within and through the site; • Replacement and new hedgerow planting; and • The enhancement of retained woodland and ponds.



Glossary

BCT	Bat Conservation Trust
CEco	Chartered Ecologist
CEnv	Chartered Environmentalist
CIEEM	Chartered Institute of Ecology & Environmental Management
CRoW Act	Countryside and Rights of Way Act 2000
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
EPS	European Protected Species
EPSL	European Protected Species Licence
Habitat Regulations	Conservation of Habitats and Species Regulations 2010 (as amended)
HAP	Habitat Action Plan
JNCC	Join Nature Conservancy Council
LERC	Local Ecological Record Centre
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
LPA	Local Planning Authority
LWS	Local Wildlife Site
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
Natura 2000 site	A European site designated for its nature conservation value
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
SAC	Special Area of Conservation
SAP	Species Action Plan
SNCO	Statutory Nature Conservation Organisations
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site(s) of Special Scientific Interest
W&CA	Wildlife & Countryside Act 1981



1.0 Introduction

1.1 Background

WYG was commissioned by Homes & Communities Agency (HCA) in March 2017 to complete bat roost and activity assessments to inform a proposed development at East Lancashire Paper Mill (hereafter referred to as 'the site'). Surveys were recommended following an Extended Phase 1 Habitat survey in 2016.

This report was prepared by Candice Howe, Senior Ecologist ACIEEM.

1.2 Site Location

The site is located in the small town of Radcliffe (approximately 4.8km south of Bury) in Greater Manchester. The central Ordnance Survey Grid Reference of the site is SD 79296 07445. Figure 1 shows a location plan of the site. The site is approximately 18.9 hectares and habitats on site include hardstanding, scrub, standing water, amenity grassland, introduced shrub, mature tree, bare ground and buildings (see Phase 1 Habitat Map provided in Figure 2).

In the wider area there are large expanses of woodland located in Springwater Park (approximately 0.75km east of the site). Between Springwater Park and the east of the site there is mainly scrub, marsh and grassland habitat. The River Irwell borders the southwest of the site and hydrologically connects Springwater Park to the site. There is also woodland along the south of the river corridor, approximately 0.5km south of the site. Immediately north and west of the site is the urbanised area of Radcliffe.

1.3 Development Proposals

The proposal comprises residential development of up to 450 homes, soft landscaping, access roads and potentially a new secondary school. At the time of writing no proposed development layout of the site was available, however a woodland clearance plan has been produced (Drawing Ref: Q5060.LRM.ELPM.009A – Figure 11).

1.4 Purpose of the Report

The aims of the survey work and the subsequent report presented here are to:

- Outline the legislative protection given to bats;
- Detail existing bat records and locally designated sites of relevance to bats;
- Identify habitats and features within the site that have the potential to be used by bats;
- Summarise the findings of the bat surveys and report on the presence or otherwise of bat species at the site; and
- Provide an assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

2.0 Methodology

2.1 Desk Study

2.1.1 Previous Reports

WYG is not aware of any previous survey reports relating to bats on site or the surrounding area. However, the following report was reviewed as it included assessments of buildings and trees on site for bat roosting potential and assessment of the habitat on site for bat foraging and commuting potential:

- East Lancashire Paper Mill, Bury – Extended Phase 1 Habitat Survey, WYG (December 2016)

2.1.2 Local Ecological Records Centre

Information was requested from the Greater Manchester Ecology Unit (GMEU) for information on any nature conservation designations and protected or notable species records within 2km of the site as part of the Extended Phase 1 Habitat survey in November 2016. This record search included bat records.

The data search covers:

- Statutory designated sites for nature conservation, namely SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs;
- Non-statutory designated sites for nature conservation, namely LWS;
- Legally protected species, such as great crested newts, bats and badger;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance; and,
- Priority habitats or species within the Greater Manchester LBAP.

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest.

2.1.3 Online Resources

A search for relevant information was also made on the following websites:

- MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015; and
- NBN Atlas <https://nbnatlas.org/> - for records of protected and notable species.

2.2 Field Surveys

A preliminary bat roost assessment was undertaken as part of the Extended Phase 1 Habitat Survey in 2016, which identified four buildings with bat roosting suitability (B1-4). Please refer to the Extended Phase 1 Habitats Survey Report (dated December 2016) for detailed results of the external building assessment; internal building assessment; and bat roost assessment of trees.

2.2.1 Bat Emergence Survey - Buildings

Buildings B1, B3 and B4 were subject to emergence/re-entry surveys in 2017. Although no detailed proposals are provided, it is understood that B2 will be retained within the proposals. Survey dates and surveyor's names are provided in Table 1:

Table 1 Date and weather conditions for emergence survey

Building Ref	Survey Visit 1 (Date & Surveyors*)	Survey Visit 2 (Date & Surveyors*)	Survey Visit 3 (Date & Surveyors*)
B1	12.06.17 (LH, JL)	14.07.17 (HV, LV)	n/a
B3	12.06.17 (GWI, RK)	14.07.17 (AB, MP)	n/a
B4	12.06.17 (AB, MW, MB)	n/a	n/a

*Jayne Lea (JL); Luke Verrall (LV); Helen Vanston (HV); Laura Holmes Level 2 Licence Reference: 2015-12292-CLS-CLS (LH); Georgina Whittaker Level 1 Licence Reference: 2017-31225-CLS-CLS (GWI); Rachel Kerr Level 2 Licence Reference: 2017-31346-CLS-CLS (RK); Alex Baldwin (AB); and Mark Pritchard (MP).

Surveyors used Batbox Duet detectors during the survey. Where necessary calls were recorded as wave files using a Zoom H2 for later analysis on PC with BatScan/Sound software.

The dusk emergence survey commenced 15 minutes before sunset and continued for 1.5 hours after sunset. The pre-dawn re-entry survey commenced 1.5 hours before sunrise and continued until 15 minutes after sunrise. Table 2 summarises the survey times and weather conditions.

Table 2 Date and weather conditions for emergence survey

Date of survey	Sunrise/sunset	Start	Finish	Temperature start (oC)	Temperature End (oC)	Precipitation and wind speed	Cloud
12.06.17	21:37	21:22	23:07	16	13	Nil ppt; 0-5mph	80-100%
14.07.17	04:58	03:28	05:13	14.1	13.6	Nil ppt; 1-3mph	80-100%

Surveys were completed two or three surveyors per building to ensure all elevations of the building could be observed. The locations of the surveyors during the dusk emergence survey are shown in Figure 3.

2.2.2 Bat Activity Surveys

The site was appraised for its suitability to support bats during the Extended Phase 1 Habitat Survey completed in March 2016 and is considered to have 'Moderate' suitability for foraging and commuting bats. One transect survey per month was recommended with reference to best practice guidelines (Collins, 2016).

Surveys were completed using Anabat Express frequency division detectors and heterodyne bat box detectors. Six transect surveys were undertaken between April and September 2017. One survey visit included a dusk and dawn transect survey. Table 3 shows a summary of transect survey times and weather conditions.

Table 2 Summary of bat activity transect survey times and weather conditions

Date of survey	Sunrise/sunset	Start	Finish	Temp start (oC)	Temp End (oC)	Precipitation & wind speed	Cloud
20.04.17	20:15	20:05	22:28	12	11	Nil, 1-3mph	40-90%
22.05.17	21:15	21:15	23:25	18	14	Nil, 1-3mph	20%
26.06.17	21:41	21:41	23:49	17	16	Nil, 1-3mph	100%
20.07.17	21:24	21:24	23:24	15	14	Nil, 1-3mph	90%
09.08.17	20:50	20:50	22:50	17	13	Nil, 0-1mph	90-70%
19.09.17	19:15	19:15	21:15	14	11	Nil, 0-1mph	20-60%
20.09.17	06:52	04:52	06:52	11	12	Nil, 0-1mph	90-100%

The transect route (Figure 4) was designed to sample representative habitats within the site including waterbodies, areas of scrub and grassland.

The direction the transect was walked was alternated on each survey visit to ensure varied temporal and spatial coverage of the survey area. The surveyors walked at a steady pace starting at sunset and continuing for at least 2 hours afterwards.

The transect was undertaken as a timed search during which any bat foraging and/or commuting was recorded. The nature of the bat activity was recorded along with the direction in which the bat was travelling, if the bat was observed. All transects were completed during suitable weather conditions.

Any bats recorded were identified to species (where possible) and recorded on a field map. The calls were recorded on the detectors were later analysed by an experienced bat ecologist using Analook / Batsound software to allow identification to species or genus level.

2.2.3 Static Detector Surveys

Anabat Express bat detectors were used to sample bat activity, distribution and species across the site. The static detector was placed at each location before dusk and was retrieved during the

daytime after at least five nights of consecutive recording. Table 4 and Figure 4 present the static detector locations.

Table 3 Summary of static bat detector survey locations

Static Location	Grid Reference	Start Date of Recording	Finish Date of Recording	Number of nights recorded	Habitat Description
April A (S1)	SD 79189 07470	20.04.17	25.04.17	5	Standing water (reservoir)
April B (S2)	SD 79430 07372	20.04.17	25.04.17	5	Willow scrub
May A (S3)	SD 79054 07207	22.05.17	27.05.17	5	Semi-natural broadleaved woodland
May B (S4)	SD 79389 07684	22.05.17	27.05.17	5	Marshy grassland
June A (S5)	SD 79384 07285	20.06.17	25.06.17	5	Standing water (pond)
June B (S6)	SD 79356 07533	20.06.17	25.06.17	5	Amenity grassland and willow scrub margin
July A (S7)	SD 79522 07339	20.07.17	25.07.17	5	Semi-natural broadleaved woodland
July B (S8)	SD 79450 07669	20.07.17	25.07.17	5	Dense/continuous scrub
August A (S9)	SD 79295 07327	09.08.17	14.08.17	5	Standing water (pond)
August B (S10)	SD 79179 07408	09.08.17	14.08.17	5	Willow scrub
September A (S11)	SD 79074 07238	20.09.17	25.09.17	5	Neutral grassland and standing water (pond)
September B (S12)	SD 79368 07435	20.09.17	25.09.17	5	Standing water (reservoir)

Detectors were deployed during suitable weather conditions. Table 5 summarises weather conditions during the automated detector surveys.

Table 4 Summary of weather conditions during automated surveys

Date of Survey	Sunrise/Sunset	Maximum temperature (°C)	Minimum temperature (°C)	Precipitation	Wind Speed & Direction
20-25.04.17	05:50/20:25	13	-1 (00:00 25.04.17)	Nil	Predominantly W/NW



Date of Survey	Sunrise/ Sunset	Maximum temperature (°C)	Minimum temperature (°C)	Precipitation	Wind Speed & Direction
					average of 10mph
22-27.05.17	04:55/21:18	26	10	Nil	Predominantly N/W average of 6mph
20-25.06.17	04:41/21:41	28	10	Nil	Predominantly SW average of 7mph
20-25.07.17	05:11/21:18	21	12	Scattered showers throughout period	Predominantly N/W average of 7mph
09-14.08.17	05:43/20:44	19	7	Nil	Predominantly SSW average of 9mph
20-25.09.17	06:57/19:04	19	7	Scattered showers on 24.09.17	Predominantly S average of 9mph

2.3 Limitations

There were no seasonal constraints to the surveys and they were all undertaken with due consideration of the BCT guidelines. No adverse weather conditions were noted during the activity transect surveys and therefore there are no limitations associated with weather.

However, there was a dip in temperature during the static monitoring on 25.04.17 where temperatures fell to -1 at midnight. Bat activity was still recorded on this monitoring period (2,257 bat passes at S1 compared to 19 bat passes at S2), however this may not represent a true reflection of activity as bats are less active at lower temperatures. This limitation is taken into consideration when interpreting the results.

On the first survey visit to B3 (June) there was restricted access and the southwest facing elevation could not be surveyed. A second visit was undertaken in July (with full access) to compensate for this initial constraint

Brown long-eared bats *Plecotus auritus* were recorded during the dusk emergence surveys. This species can be relatively difficult to detect due to the low amplitude (i.e. quiet) calls. The activity of this species may therefore be underestimated. The discussion and interpretation in this report takes this into consideration.

Bats vary their calls dependent on the habitats they fly in and on their activity (commuting, foraging, social interaction, etc). It is not always possible to identify bat calls to species level owing to the overlap of call parameters between some species and/or poor quality recordings (e.g. brief and distant passes). In these cases, it is accepted that species are identified to genus level or group level (e.g. *Myotis*, *Myotis/Plecotus* and *Nyctalus/Eptesicus*) (Collins, 2016). Where call parameters are inconclusive the species has been labelled as 'unknown'. This ensures the dataset is interpreted accurately and transparently.



The bat surveys were completed with the assistance of bat detectors. Surveys using bat detectors have an advantage over other methodologies (such as radio tracking or trapping) in that they are 'non-intrusive', and will therefore not have an adverse effect on the conservation status or welfare of bats. However, all survey techniques for bats are subject to bias and bat detector surveys may under record species with weak echolocation calls, such as brown long-eared bats. Bats from the *Myotis* genus can be difficult to identify to species from call structure alone (Russ, 2012).

The details of the emergence/re-entry surveys are valid for **one year**, whereas the details of the activity surveys will remain valid for a period of **two years** from the date of the survey, after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or once development proposals become available.



3.0 Baseline Conditions

3.1 Desk Study

3.1.1 Previous Reports

The 2016 Extended Phase 1 Habitat Survey Report identified that buildings and trees on site provide roosting suitability (four buildings and eight trees) and the site itself has moderate habitat quality for foraging and roosting bats.

3.1.2 Local Records Centre

The 2016 data search with GMEU returned three records of bat activity within the site boundary itself, and over 160 records of bats within 2km of the site boundary, including more than 60 bat roosts (see Appendix B for full details).

Many of the records denote unspecified bat species, or unspecified *Pipistrellus* or *Myotis* species, but at least six bat species have been recorded within 2km of the site, including:

- Common pipistrelle *Pipistrellus pipistrellus*;
- Soprano pipistrelle *Pipistrellus pygmaeus*;
- Nathusius' pipistrelle *Pipistrellus nathusii*;
- Noctule *Nyctalus noctula*;
- Daubenton's bat *Myotis daubentonii*; and
- Natterer's bat *Myotis nattereri*.

The site lies within the Core Sustainance Zones (CSZ) for the above bat species. A CSZ is defined as "the area surrounding a communal bat roost within which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost" (Collins, 2016).

There are three onsite records which denote one noctule observation and two unspecified pipistrelle observations. The nearest roost record is from Tower Street, approximately 30m east of the site where two common pipistrelles were recorded roosting in 2013.

There are no designated or undesignated sites related to bats within 2km.

3.1.3 Online Resources

There are records of three mitigation licences within 3km of the site, all relating to common pipistrelle (with a CSZ of 2km). There are no other mitigation licences for bat species which are within the CSZ of the site.



3.2 Field Surveys

3.2.1 Bat Emergence/Re-entry Survey – Buildings

The 2016 Extended Phase 1 Habitat Survey included daytime external and internal inspection of buildings, which are summarised below:

- B1 – Moderate Suitability (affected by proposals)
- B2 – Low Suitability (not affected by proposals)
- B3 – Low Suitability (affected by proposals)
- B4 – Low Suitability (affected by proposals)

The buildings affected by the proposals were subject to emergence/re-entry surveys in 2017 (as described below).

Visit 1: Dusk Survey 12th June 2017

A dusk emergence survey of B1, B3 and B4 was completed on 12.06.17 and led by Rachel Kerr (Level 2 Licence Reference: 2017-31346-CLS-CLS) and Laura Holmes (Level 2 Licence Reference: 2015-12292-CLS-CLS) assisted by Georgina Whittaker (Level 1 reference: 2017-31225-CLS-CLS) and four experienced bat surveyors. The locations of the surveyors are shown in Figure 3.

Building B1

No roosting behaviour was identified. The first bat contact was a common pipistrelle at 22:03 (26 minutes after sunset). Brown long-eared bat was the only other species recorded and the first contact of this species was at 22:10 (33 minutes after sunset). The timings of these first contacts suggests these species are roosting nearby. Common pipistrelle were noted foraging around the tree canopy.

Building B3

No definite roosting behaviour was identified (however view of southwest elevation was not possible – see limitations section). The first bat contact was a common pipistrelle at 22:04 (27 minutes after sunset). Soprano pipistrelle was the only other species recorded and the first contact of this species was at 22:47 (70 minutes after sunset).

Building B4

No roosting behaviour was identified (however view of southwest elevation was not possible). The first bat contact was a common pipistrelle at 22:11 (34 minutes after sunset). No other bat species were recorded during the survey.

Visit 2: Pre-Dawn Re-Entry Survey 14th July 2017

A pre-dawn re-entry survey of B1 and B3 was completed on the 14.07.17 led by experienced bat surveyor Alex Baldwin assisted by three experienced bat surveyors.



Building B1

No roosting behaviour was identified. The last bat contact was a common pipistrelle at 03:59 (59 minutes before sunrise). Daubenton's bat was the only other species recorded and the last contact of this species was at 04:37 (21 minutes before sunrise). Common pipistrelle and Daubenton's were noted foraging along the river.

Building B3

No roosting behaviour was identified. The last bat contact was a common pipistrelle at 04:31 (27 minutes before sunrise). Common pipistrelle were noted foraging along the treeline towards marshy grassland. No other bat species were recorded during the survey.

3.2.2 Bat Emergence/Re-entry Survey – Trees

The 2016 Extended Phase 1 Habitat Survey included ground based assessment of trees for bats, which is summarised below:

- T1 – Moderate Suitability (not affected by proposals)
- T2 -T8 – Low Suitability (not affected by proposals)

As the trees are not affected by the proposals, no aerial inspections or emergence/re-entry surveys were considered necessary in 2017.

3.2.3 Bat Activity Surveys

This section should be read with reference to Figures 4 - 10 which show the transect routes and species distribution with activity notes (e.g. flight path) for each survey visit. A summary of the spatial and temporal distribution of bat activity is summarised below by species.

The activity transects revealed at least four species of bat across the site;

- Common pipistrelle
- Soprano pipistrelle
- Noctule
- Daubenton's bat
- Unconfirmed Myotis bat

Common pipistrelle were the most abundant species on every visit. Activity was generally concentrated to the marshy grassland and plantation habitats in the northeast of the site and the willow scrub along the southeast boundary of the site. In May and August common pipistrelle were observed foraging over and around the edge of the reservoir. Between May and September common pipistrelle were also recorded foraging around the broadleaved semi-natural woodland in the southwest of the site (adjacent to the River Irwell).

Soprano pipistrelle were only recorded in May and September at consistently low levels (3 contacts only per survey). In May, soprano pipistrelle activity was spread across the site and bats were

observed over the amenity grassland, the pond along the southern boundary and the willow scrub in the west of the site. In September, soprano pipistrelle activity was concentrated around and over the reservoir.

One noctule contact was recorded in May only, over the willow scrub in the southeast of the site.

Daubenton's bat were recorded on every visit. With activity concentrated over the reservoir. In August, Daubenton's were also observed foraging over the willow scrub near the pond along the southern boundary.

An unconfirmed species of *Myotis* was recorded in the south east of the site in August.

3.2.4 Static Detector Surveys

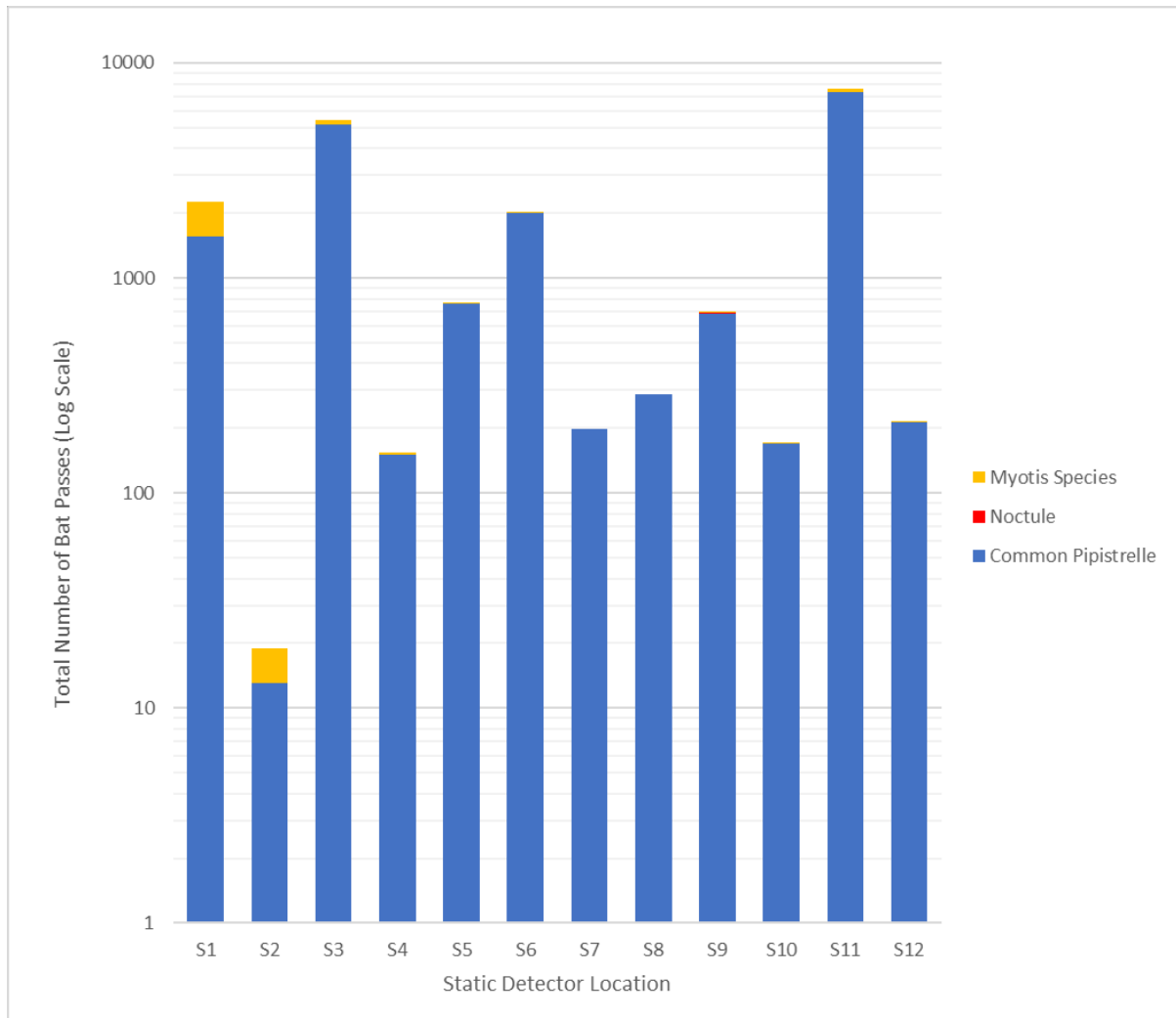
A total of 19,793 bat passes were recorded using automated static detectors. Of these passes, 93.8% of these were common pipistrelle, 0.05% were noctule and 6.15% were *Myotis* passes. Table 6 and Chart 1 summarise the total number of bat passes recorded at each location. Figure 4 shows the locations of the static bat detectors.

Table 6 Total bat passes recorded during static detector surveys

Static Location and Month	Common pipistrelle	Noctule bat	Myotis species	Total
S1 (April)	1,551	0	706	2,257
S2 (April)	13	0	6	19
S3 (May)	5,186	4	211	5,401
S4 (May)	151	0	3	154
S5 (June)	757	4	2	763
S6 (June)	1,997	0	13	2,010
S7 (July)	199	0	0	199
S8 (July)	288	0	0	288
S9 (August)	684	2	4	690
S10 (August)	170	0	2	172
S11 (September)	7,359	0	265	7,624
S12 (September)	214	0	2	216
Total	18,569	10	1,214	19,793



Chart 1: Total bat passes recorded using static detectors





4.0 Relevant Planning Policy & Legislation

4.1 National Planning Policy

Natural England's standing advice to Local Planning Authorities (LPAs) follows the principles and advice set out in the National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2012).

Paragraph 109 of the NPPF states that:

The planning system should contribute to and enhance the natural and local environment by:

- Protecting and enhancing valued landscapes, geological conservation interests and soils;
- Recognising the wider benefits of ecosystem services; and
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Office of the Deputy Prime Minister (ODPM) Circular 06/2005: Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. This circular should be read in conjunction with the National Planning Policy Framework and planning practice guidance.

If there is reasonable likelihood that a protected species is present, sufficient information (in the form of species surveys) should be undertaken before the planning application is considered.

ODPM Circular 06/2005 states that:

"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted."

4.2 Local Planning Policy

The Greater Manchester Biodiversity Action Plan (BAP) lists priority species and habitats for the region and includes objectives and targets for maintaining and enhancing the status of these species and habitats. All species are included in Greater Manchester's BAP.



At the time of writing, the Bury Local Plan was in development which will form part of Bury's Wider Development Plan. The Bury Unitary Development Plan (UDP) acts as a guide for the future development or protection of land in the Borough and its policies and proposals currently form the basis for the Council's decisions on planning applications.

EN6 of the Bury UDP focuses on conservation of the natural environment and states that

"The Council will retain, protect and enhance the natural environment of the Borough, particularly in relation to areas of ecological, wildlife and geological importance."

4.3 Legislation

All British bat species are given special protection within England by their inclusion on Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

As a result, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat's roosting place (even if bats are not occupying a roost at the time);
- Possess or advertise, sell or exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost

With specific reference to the offence of disturbance, Regulation 41(1) of the Conservation of Habitats and Species Regulations 2010 (as amended) states that a person commits an offence if they:

"...deliberately disturb wild animals of any such species [i.e. a European Protected Species] in such a way as to be likely significantly to affect:

(i) the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or

(ii) the local distribution or abundance of that species".

Where development will result in damage to, or obstruct access to, any bat roost (whether occupied or not) or risks harming or significantly disturbing bats, a European Protected Species Licence (EPSL) is required from Natural England to allow the development to proceed.

Bats are also afforded more general protection in England (and Wales) within the Natural Environment and Rural Communities Act (NERC) 2006. This imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "to have due regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity" [Section 40 (1)]. It notes that "conserving biodiversity includes restoring or enhancing a population or habitat" [Section 40 (3)]. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as roosts, flight corridors and foraging areas.



Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

Seven species of bats soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat, *Rhinolophus hipposideros* barbastelle *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii* and noctule *Nyctalus noctula*) are listed under Section 41 of the NERC Act 2006.

5.0 Discussion

5.1 Potential Impacts

5.1.1 Roosting Bats - Buildings

No roosts were identified in buildings B1, B3 or B4 and therefore European Protected Species Mitigation Licence (EPSML) from Natural England is not considered necessary at this stage to refurbish or demolish these buildings. However, a precautionary approach is recommended whereby works are undertaken outside the peak season for bats (mid-May to August). If works are required during the peak season, reasonable avoidance measures are recommended in Section 6.

5.1.2 Roosting Bats – Trees

No trees with bat roosting suitability (T1 – T8) will be affected by the proposals and therefore there are no implications on tree-roosting bats in relation to development proposals.

5.1.3 Foraging and Commuting Bats

The following species were recorded on site, which have been categorised by distribution and rarity (Wray, 2010):

Common (Populations over 100,000 in England)

- Common pipistrelle
- Soprano pipistrelle
- Brown long-eared¹

Rarer (Populations between 10,000 - 100,000 in England)

- Myotis species (including Daubenton's, Natterer's and whiskered/Brandt's/Alcathoe)
- Big bat species (noctule, serotine and Leisler's)

There is also a 'Rarest' category, however no bats recorded on the site fall within this category. Species presence at each monitoring location is summarised in Table 7.

Table 7 Species presence recorded during static monitoring

	Species Presence at Static Monitoring											
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
Psp²	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

¹ Presence was confirmed on dusk emergence survey and not during transects or static monitoring.

² Species codes: Psp = Pipistrelle species; Msp = Myotis species; Nn = Noctule; and Paur = Brown long-eared



Msp	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y
Nn	N	N	Y	N	Y	N	N	N	Y	N	N	N
Paur	N	N	N	N	N	N	N	N	N	N	N	N

Bat activity was distributed across the site, concentrated around features such as the reservoir, plantation woodland and semi-natural broadleaved woodland. Below is a summary of the twelve monitoring locations, plus the additional key areas of activity identified from the transect surveys:

- S1 (April) Standing water (reservoir in southeast)
- S2 (April) Willow scrub (northwest)
- S3 (May) Semi-natural broadleaved woodland (southwest)
- S4 (May) Marshy grassland (northeast)
- S5 (June) Standing water/ pond (south east/central)
- S6 (June) Amenity grassland and willow scrub margin (north central)
- S7 (July) Semi-natural broadleaved woodland (southeast)
- S8 (July) Dense/continuous scrub (northeast/central)
- S9 (August) Standing water/pond (south central)
- S10 (August) Willow scrub (northwest)
- S11 (September) Neutral grassland and standing water (pond) (southwest)
- S12 (September) Standing water (reservoir in southeast)

The above will be discussed in terms of potential severance impacts as a result of vegetation clearance (Figure 11) and indirect impacts of external lighting.

S1 (April) Standing water (reservoir in southeast)

The reservoir had the third highest number of total passes in comparison to the other locations. Common species such as common pipistrelle were the most abundant species recorded at this location, accounting for 68.6% of total passes. Rarer species such as *Myotis* were also recorded in this location in April, with relatively high levels of activity (accounting for 31.3% of total activity) Daubenton's bat was recorded foraging over the reservoir on every transect survey visit between April and September. No other species were recorded during static monitoring but noctule and soprano pipistrelle were recorded here during (at very low levels) during the transect surveys in May and September (respectively).

This is a relatively important foraging feature for bats and Daubenton's in particular and the Woodland Clearance Plan (Fig 11) shows the area will be retained along with the existing vegetation surrounding the reservoir. As *Myotis* species are prevalent in this location, external lighting will have an indirect impact on commuting and foraging bats. Sensitive lighting is also recommended to avoid increasing lighting of the reservoir or surrounding retained vegetation.



S2 (April) Willow scrub (northwest)

Activity within the northwest willow scrub was the lowest in comparison to the other locations with only 19 total bat contacts. Common pipistrelle accounted for 68% of activity at this location with Myotis accounting for the remaining 32%. Common pipistrelle were occasionally observed in this area on the transect survey visits (May – July). No other species were recorded in this area.

This area of habitat is considered to provide relatively low value foraging habitat for common bat species. This area of vegetation will be cleared and therefore loss of this habitat is not considered to have a significant impact on foraging bats.

S3 (May) Semi-natural broadleaved woodland (southwest)

The woodland strip in the southwest of site had the second highest level of activity recorded in comparison to the other locations. Common species such as common pipistrelle accounted for 96.6% of bat passes, with rarer species accounting for the remaining activity: 3.9% Myotis species and 0.07% noctule. This location is adjacent to the River Irwell and is likely to provide a valuable foraging resource. Common pipistrelle were observed foraging around this woodland edge and over the river on the transect surveys.

This strip of woodland provides a relatively valuable foraging resource for bats and it will be retained within the proposals. The woodland strip also provides a screen to River Irwell, protecting this valuable feature for foraging and commuting bats. External lighting could have an indirect impact of foraging bats, particularly the Myotis species. As such, it is recommended that any future lighting is minimised in proximity to the retained woodland habitat, with the woodland maintained as a dark corridor.

S4 (May) Marshy grassland (northeast)

Activity in the northeast marshy grassland was relatively low in comparison to the other locations with only 154 total bat contacts. Common pipistrelle accounted for 98% of activity at this location with Myotis accounting for the remaining 2%. Common pipistrelle were occasionally observed in this area on the transect survey visits (May – July). No other species were recorded in this area.

This area of habitat provides relatively low value foraging habitat for common bat species. This area of vegetation will be cleared and therefore loss of this habitat is not considered to have a significant impact on foraging bats.

S5 (June) Standing water/ pond (south east/central)

Relatively moderate levels of activity were recorded around the pond in the south of the site, although total number of bat passes recorded in the period was less than 1000. Common pipistrelle accounted for 99.2% of the activity with the remaining 0.52% and 0.28% of activity from rarer species (noctule and Myotis species respectively). Soprano pipistrelle were observed foraging over this pond on the May transect and Daubenton's was recorded foraging over the pond area in August.

This feature provides value as a foraging resource and will not be retained within the proposals. It is recommended that a replacement pond is created as a biodiversity feature.



S6 (June) Amenity and willow scrub margin (north central)

Activity at this margin was the fourth highest in comparison to the other locations with 2,010 total bat passes. Common pipistrelle (common species) accounted for 99.3% of activity at this location with Myotis species accounting for the remaining activity. Soprano pipistrelle were observed foraging over this area in May.

A small strip of the willow scrub will be retained, which should be managed to promote foraging with a grassland margin.

S7 (July) Semi-natural broadleaved woodland (southeast)

The woodland strip in the southeast of site had relatively low levels of activity recorded in comparison to the other locations (less than 200 total bat passes). Common species such as common pipistrelle accounted for 100% of bat passes. Rarer species such as Myotis were observed foraging near this area during the transect in August.

This strip of woodland provides relatively low value foraging resource for bats and it will be retained within the proposals. It is recommended that this feature is enhanced by extending the strip (by planting hedgerow and/or trees) to connect to the reservoir feature and River Irwell (via the southern boundary).

S8 (July) Dense/continuous scrub (northeast)

The scrub in the northeast of site had relatively low levels of activity recorded in comparison to the other locations (less than 300 total bat passes). Common species such as common pipistrelle accounted for 100% of bat passes. No other species were recorded at this location on the transect surveys.

This area of habitat provides relatively low value foraging habitat for common bat species. This area of vegetation will be cleared and therefore loss of this habitat is not considered to have a significant impact on foraging bats.

S9 (August) Standing water/pond (south central)

Relatively moderate levels of activity were recorded around the pond in the south of the site (northwest bank) in August, although total number of bat passes recorded in the period was less than 1000. Results were very similar to that recorded in June (at the southeast bank). Common pipistrelle accounted for 99.13% of the activity with the remaining 0.58% and 0.29% of activity from rarer species (Myotis species and noctule respectively). Soprano pipistrelle were observed foraging over this pond on the May transect and Daubenton's was recorded foraging over the pond area in August.

This feature provides value as a foraging resource and will not be retained within the proposals. It is recommended that a replacement pond is created as a biodiversity feature.

S10 (August) Willow scrub (northwest)

Activity within the northwest willow scrub was relatively low in August in comparison to the other locations (172 total bat passes). However, activity was greater than that which was recorded in April



in the same area (19 total bat contacts). Common pipistrelle accounted for 98.8% of activity at this location with *Myotis* accounting for the remaining 1.2%. Common pipistrelle were occasionally observed in this area on the transect survey visits (May – July). No other species were recorded in this area.

This area of habitat provides relatively low value foraging habitat for common bat species. This area of vegetation will be cleared and therefore loss of this habitat is not considered to have a significant impact on foraging bats.

S11 (September) Neutral grassland and standing water (pond) (southwest)

Activity around the grassland and pond in the southwest of site was the highest recorded in comparison to the other locations with 7,624 total bat passes. Common pipistrelle (common species) accounted for 96.52% of activity at this location with *Myotis* species accounting for the remaining activity. No other species were recorded in this area during the transect surveys.

This feature is considered to be a relatively valuable foraging resource and will be retained within the proposals and should be enhanced as a biodiversity feature. External lighting could have an indirect impact of foraging bats, particularly the *Myotis* species. As such, it is recommended that any future lighting is minimised in proximity to the retained woodland habitat, with the woodland maintained as a dark corridor.

S12 (September) Standing water (reservoir in southeast)

Activity around the reservoir was relatively low in September (216 total bat passes) in comparison to 2,257 total bat passes recorded in April. Common species such as common pipistrelle were the most abundant species recorded at this location, accounting for 99% of total passes. Rarer species such as *Myotis* were also recorded over the reservoir but at much lower levels of activity (accounting for 2% of total bat passes). Daubenton's bat was recorded foraging over the reservoir on every transect survey visit between April and September. No other species were recorded during static monitoring but noctule and soprano pipistrelle were recorded here (at very low levels) during the transect surveys in May and September (respectively).

This is a relatively important foraging feature for bats, perhaps more vital in spring when bats are becoming active after hibernation. The reservoir will be retained, however sensitive lighting design is recommended to avoid increasing lighting of the reservoir and surrounding vegetation.

5.2 Mitigation

5.2.1 Roosting Bats - Buildings

No bat roosts were identified in Buildings B1, B3 and B4, however they provide moderate-low roosting suitability for bats. These buildings can be demolished/renovated without supervision if works are undertaken between September and mid-May (when bats are highly unlikely to be present). If it not possible to avoid the active period, it is recommended that works are undertaken using reasonable avoidance measures.

Recommendations for Reasonable Avoidance Measures (works between May and August)



A toolbox talk will be provided by a suitably qualified ecologist to all contractors. Works must proceed with caution and vigilance in case of the unexpected presence of bats. Precautionary best practice measures should be put in place to minimise the impacts of this risk. Measures will entail the pre-commencement inspection of the features (gaps in brickwork and pointing) by a suitably licensed bat ecologist using an endoscope and hand removal of those features identified to offer bat roost potential (as listed in the Extended Phase 1 Habitat Survey Report e.g. around missing roof tiles, end ridge tiles and damaged weather boards) under the supervision of a licensed bat ecologist.

Once these features are removed to the satisfaction of the licensed ecologist, full demolition/repair works to the properties can proceed.

In the unlikely event that a bat is found, all works must cease immediately and advice sought from an appropriately experienced bat consultant.

Compensation

A minimum of five Schwegler 2F bat boxes (or similar) are recommended to be installed on retained mature trees to provide compensatory roosting provisions for bats. A bat ecologist should be contacted to advise on the most appropriate types and locations for bat boxes once further information of the development and landscaping layouts is available.

5.2.2 Foraging and Commuting Bats

Lighting Strategy

Sensitive lighting is recommended particularly around the reservoir, the southwest woodland strip and southeast woodland strip to maintain these features as foraging resources.

A wildlife sensitive lighting scheme should be designed in consultation with a suitably experienced ecologist to make sure that important commuting routes and foraging areas remain undisturbed during the construction and operational phases of the development. Where lighting is necessary, the following measures should be considered to reduce adverse effects:

- Consideration of hood design, lamp height, and angle, to reduce light spill particularly avoiding illuminating retained foraging and commuting habitat on the site such as woodland, the river corridor, tree lines, and hedgerows;
- Use of less ultra violet (UV) light emitting bulbs, such as metal halide or high pressure sodium; and
- Minimising hours of lighting to those absolutely necessary for security and safety purposes, where possible lighting should avoid key periods of bat activity (i.e. sunset and sunrise). Consider how new technologies can be used to control lighting levels (e.g. dimming lights at certain times)

Further technical details are given in the BCT and the institute of Lighting Engineers' *Bats and lighting in the UK* (2009) and *Artificial lighting and Wildlife: Interim Guidance: Recommendations to help minimise the impact of artificial lighting* (BCT, 2014). Both publications are available at http://www.bats.org.uk/pages/bats_and_lighting.html.



Replacement Planting

Hedgerow and tree planting is recommended to replace and mitigate for any loss of willow scrub and amenity grassland margins in the northeast of the site (S6).

New structured planting (hedges or trees) should extend the woodland strip along the eastern boundary (S7) as a linear feature and strengthen connectivity across the site, connecting to the reservoir. New planting along the southern boundary of the site will improve connectivity from the River Irwell to the reservoir and improve foraging and commuting habitat within the site.

It is recommended that hedges are managed as tall (at least 2.5m high), wide, continuous features acting as green corridors linking the most valuable habitats across the site (waterbodies, woodland edges and tree lines). Native species are recommended to be used, such as hawthorn and blackthorn with fruit-producing species such as bramble, rose and ivy.

5.3 Enhancement

Landscaping design

The landscaping scheme will be designed to provide shelter, foraging opportunities and connected dark corridors within and through the site. Ponds are recommended to be retained within the proposals or replaced if proposed to be lost. The following measures should be considered when creating ponds and enhancing existing ponds:

- Location of ponds within 40m of landscape features (e.g. woodland and hedges);
- Retain trees and shrubs around the pond margins to provide shade and shelter;
- Ponds should be as large as possible (50m² or more) to benefit a range of bat species;
- Create pond complexes (shallow and deep areas of water);
- Include shallow margins with diverse aquatic vegetation.

The woodland strips will be retained within the proposals and should be enhanced to improve their value as a foraging resource. These woodlands could be enhanced by the following management practices:

- New tree planting (e.g. Oak, ash and beech) to improve diversity and structure;
- Retaining deadwood (or log piles where public perception is a consideration);
- Restoring streams and creating ponds and wetland areas;
- Maintaining sunny glades maximise insect abundance and create eco-passages;
- Planting of species such as ivy and honeysuckle in the understorey.

Bat Boxes and Tubes

To enhance opportunities for roosting bats in the area, bat boxes or tubes can be installed on to existing trees or new buildings within the site. In addition to the five compensatory bat boxes mentioned above, a further 10 Schwegler 2F bat boxes (or similar high quality design) are recommended to be incorporated into the development. If buildings are proposed, Schwegler 2FR bat



tubes can be installed as an alternative (provided a minimum of 15 boxes/tubes are installed in total). A bat ecologist should be contacted to advise on the most appropriate types and locations for bat boxes once further information of the development and landscaping layouts is available.

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WYG (December 2016) East Lancashire Paper Mill, Bury – Extended Phase 1 Habitat Survey.



FIGURES

Figure 1 – Site Location Plan

Figure 2 – Phase 1 Habitat Map

Figure 3 - Surveyor Locations

Figure 4 - Transect Route & Static Locations

Figure 5 – April Transect Results

Figure 6 – May Transect Results

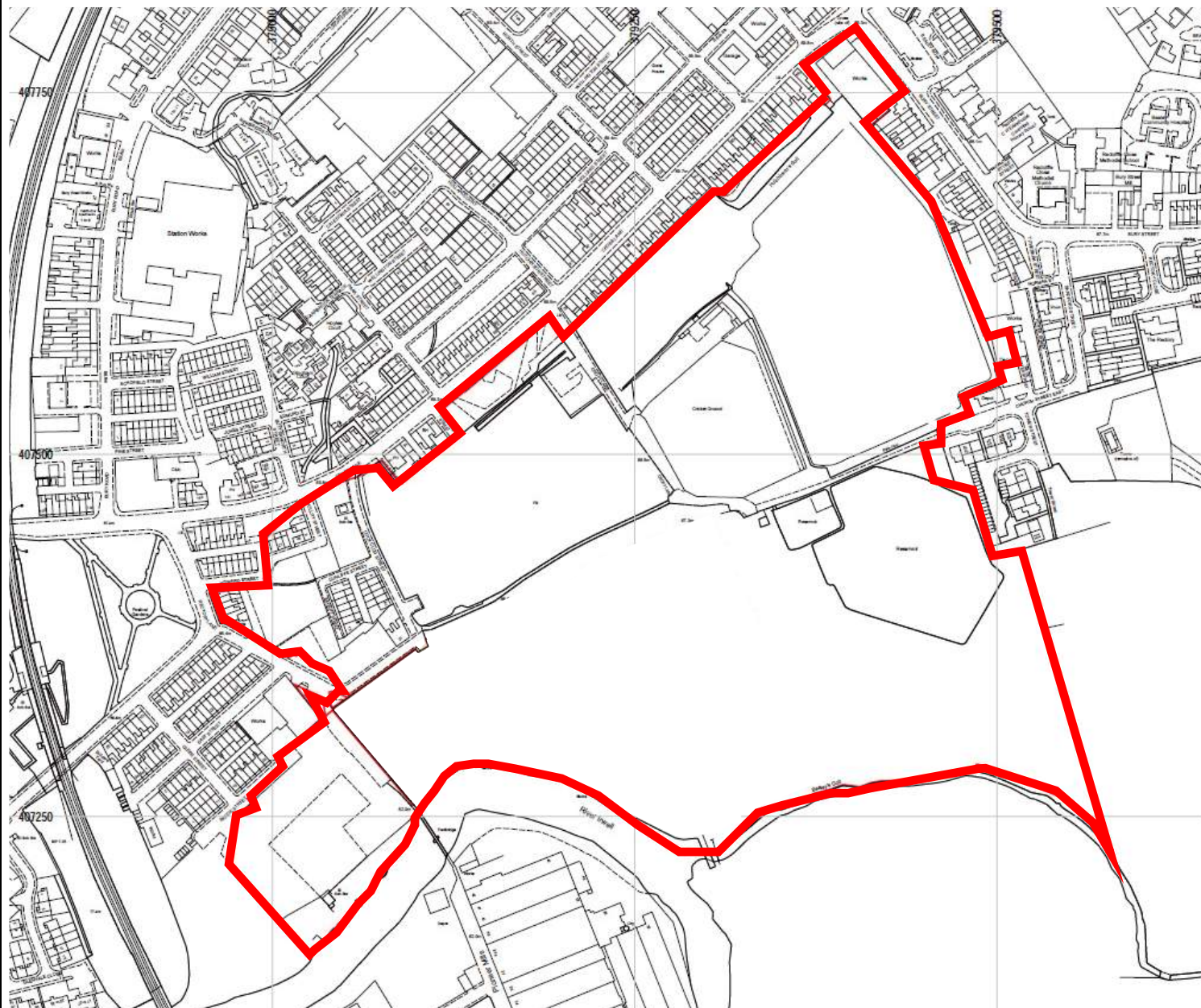
Figure 7 – June Transect Results

Figure 8 – July Transect Results

Figure 9 – August Transect Results

Figure 10 – September Transect Results

**Figure 11 – Proposed Woodland Clearance
(Drawing Ref: Q5060.LRM.ELPM.009A)**



Legend

— Site Red Line Boundary

Quay West at MediaCityUK
Trafford Wharf Road
Trafford Park
Manchester
M17 1HH

Tel: 0161 872 3223
Fax: 0161 872 3193
manchester.ecology.@wyg.com

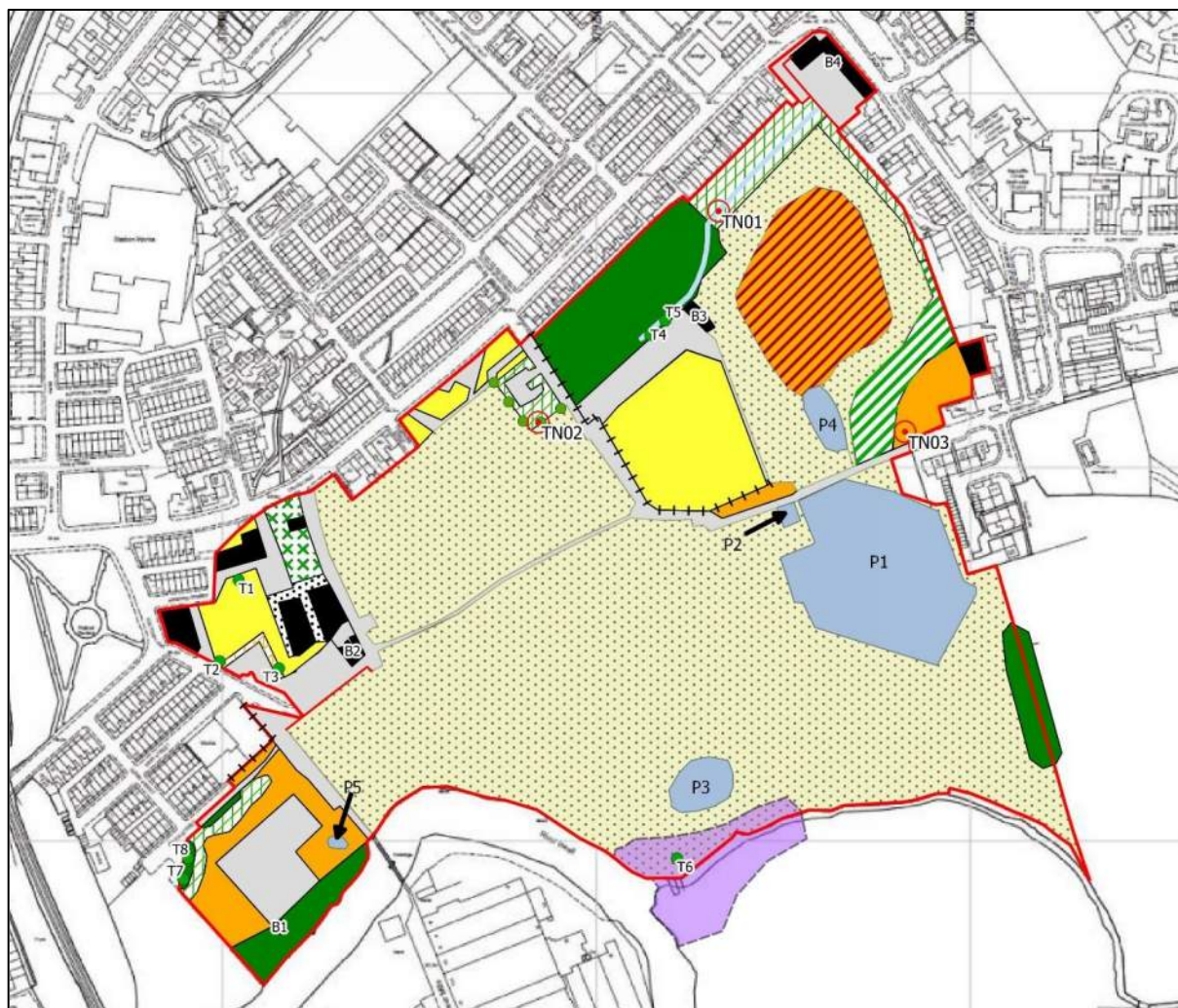


Environment

East Lancs. Paper Mill, Radcliffe
Homes & Communities Agency

Site Red Line Boundary

Drawn by:	Date:	Checked by:	Date:	Approved by:	Date:
AB	21/09/2017	RK	21/09/2017	RK	21/09/2017
Project No:	Office	Type	Drawing no:	Revision	
A090070-193	45	94	1	-	



Legend

- Site boundary
- Target Note
- Tree
- Tree line
- Running water
- Fence
- Wall
- Broadleaved woodland - semi natural
- Broadleaved woodland - plantation
- Scrub - dense/continuous
- Scrub - scattered
- Neutral grassland - semi-improved
- Marsh/marshy grassland
- Standing water
- Introduced shrub
- Building
- Bare ground
- Hardstanding
- Regenerating willow scrub
- Extensive Giant Hogweed & Japanese knotweed

B – Building reference

P – Pond reference

T – Tree

TN – Target note reference

Quay West at MediaCityUK
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Environment

Project: East Lancs. Paper Mill
Client: Homes & Communities Agency

Extended Phase 1 Habitat Map

Drawn by:	Date:	Checked by:	Date:	Approved by:	Date:
MW	06/12/16	AB	12/12/16	RK	14/12/16
Project No:	Office	Type	Drawing no:	Revision	
A090070-193	45	94	2	V1	



Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Buildings
- Surveyor locations (per survey)

0 25 50 100 Metres



Surveyor Locations on Emergence/re-entry Surveys

East Lancs Paper Mill Site, Radcliffe HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 3	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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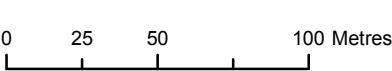
© 2015 Southwestern Paper Mills Ltd. All rights reserved. Figure 3: Surveyor locations, 16/10/17.mxd



Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Transect Route
- Start and finish positions
- Static detector location and reference



Bat Transect Route and Static Detector Locations

East Lancs Paper Mill Site, Radcliffe HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 4	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

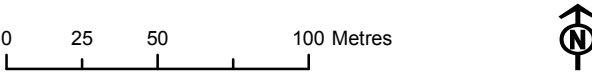
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Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Common Pipistrelle
- Daubenton's
- Common Pipistrelle contact
- Daubenton's contact



April Transect Results (20.04.17)

East Lancs Paper Mill Site, Radcliffe
HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 5	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Common Pipistrelle
- Soprano Pipistrelle
- Daubenton's
- Noctule contact

0 25 50 100 Metres



May Transect Results (22.05.17)

East Lancs Paper Mill Site, Radcliffe
HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 6	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Common Pipistrelle
- Soprano Pipistrelle
- Common Pipistrelle contact

0 25 50 100 Metres



June Transect Results (26.06.17)

East Lancs Paper Mill Site, Radcliffe
HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 7	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Common Pipistrelle
- Daubenton's
- Common Pipistrelle contact

0 25 50 100 Metres



July Transect Results (20.07.17)

East Lancs Paper Mill Site, Radcliffe
HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 8	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Common Pipistrelle
- Myotis species
- Daubenton's
- Common Pipistrelle contact

0 25 50 100 Metres



August Transect Results (09.08.17)

East Lancs Paper Mill Site, Radcliffe
HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 9	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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Rev	Date	Notes
A	12/10/17	Initial map production

Legend

- Site boundary
- Common Pipistrelle
- Soprano Pipistrelle
- Daubenton's
- Common Pipistrelle contact

0 25 50 100 Metres



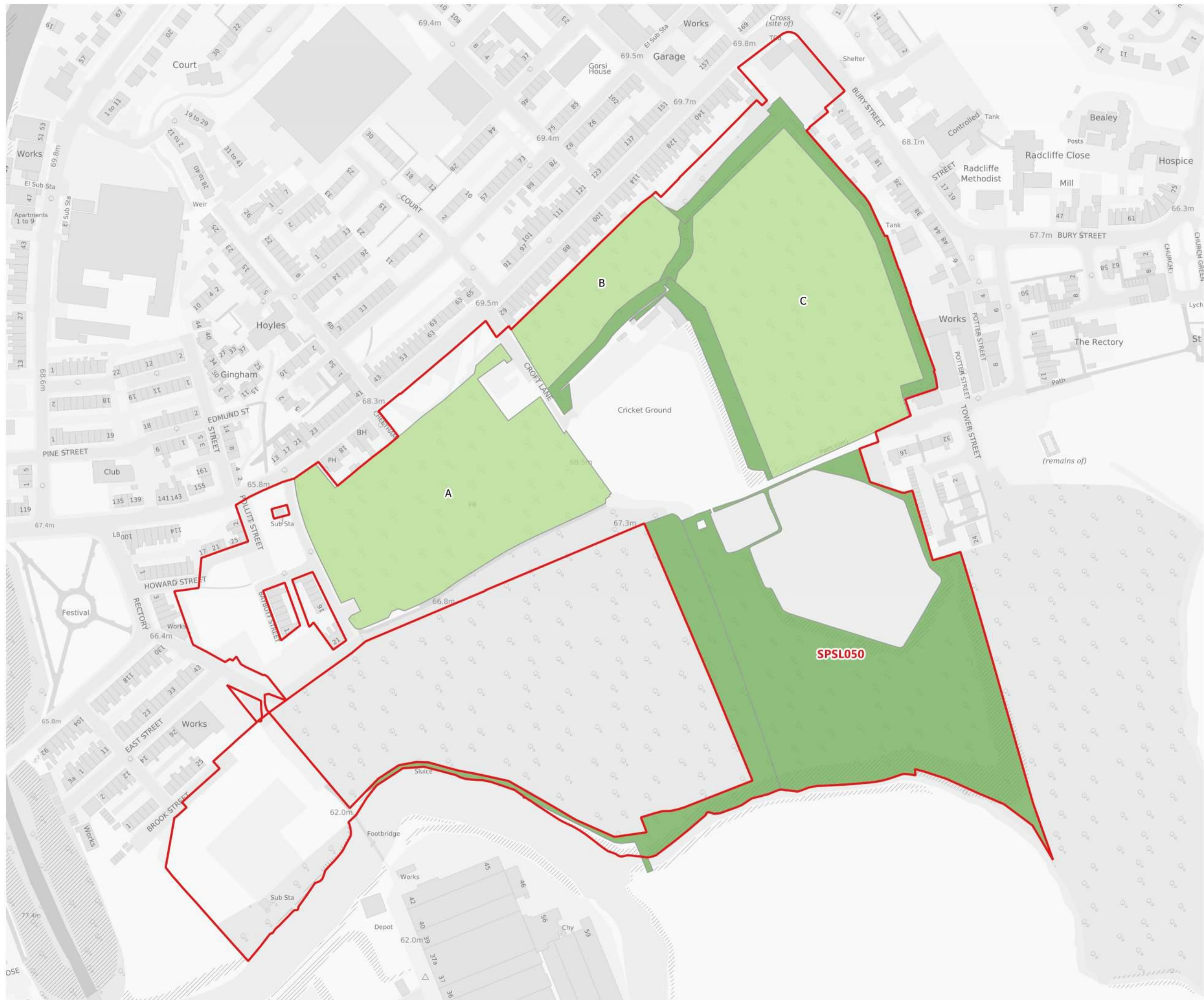
September Transect Results (19.09.17 dusk)
(20.09.17 dawn – no detections)

East Lancs Paper Mill Site, Radcliffe
HCA

Scale at A3: 1:2,500	Project No: A090070-193	Drawing No: Figure 10	Revision: A
Drawn by: Ben Blowers	Drawn date: 16/10/2017	Approved by: Candice Howe	

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© 2017 Southwestern Paper Mill HCA Site Data Figure 10: Bird September 2017.mxd



Key

- Sites
- Vegetation to be Retained
- Proposed Vegetation Clearance



Drm.	JO	Chk.	RW	App.	
Project.	East Lancashire Paper Mill, Bury				
Title.	Proposed Woodland Clearance				
Drawing Number.	Q5060.LRM.ELPM.009A				
Scale.	1:2,500		Date.	03 Oct 2017	



THE ENVIRONMENT PARTNERSHIP

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Appendix A – Wildlife Legislation



Bern Convention

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW).

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2010 (as amended) in England and Wales, and via the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Conservation of Habitats and Species Regulations 2010 (as amended)

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Amendments made in 2012 stipulated that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 - see below:

Schedule 2 – European Protected Species of Animals	Schedule 5 – European Protected Species of Plants
Horseshoe bats <i>Rhinolophidae</i> - all species	Shore dock <i>Rumex rupestris</i>
Common bats <i>Vespertilionidae</i> - all species	Killarney fern <i>Trichomanes speciosum</i>
Wild cat <i>Felis silvestris</i>	Early gentian <i>Gentianella anglica</i>

Dolphins, porpoises and whales <i>Cetacea</i> – all sp.	Lady's-slipper <i>Cypripedium calceolus</i>
Dormouse <i>Muscardinus avellanarius</i>	Creeping marshwort <i>Apium repens</i>
Pool frog <i>Rana lessonae</i>	Slender naiad <i>Najas flexilis</i>
Sand lizard <i>Lacerta agilis</i>	Fen orchid <i>Liparis loeselii</i>
Fisher's estuarine moth <i>Gortyna borelii lunata</i>	Floating-leaved water plantain <i>Luronium natans</i>
Great crested newt <i>Triturus cristatus</i>	Yellow marsh saxifrage <i>Saxifraga hirculus</i>
Otter <i>Lutra lutra</i>	
Lesser whirlpool ram's-horn snail <i>Anisus vorticulus</i>	
Smooth snake <i>Coronella austriaca</i>	
Sturgeon <i>Acipenser sturio</i>	
Natterjack toad <i>Epidalea calamita</i>	
Marine turtles <i>Caretta caretta</i> , <i>Chelonia mydas</i> , <i>Lepidochelys kempii</i> , <i>Eretmochelys imbricata</i> , <i>Dermochelys coriacea</i>	

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants,

bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.

Wild Mammals (Protection) Act 1996

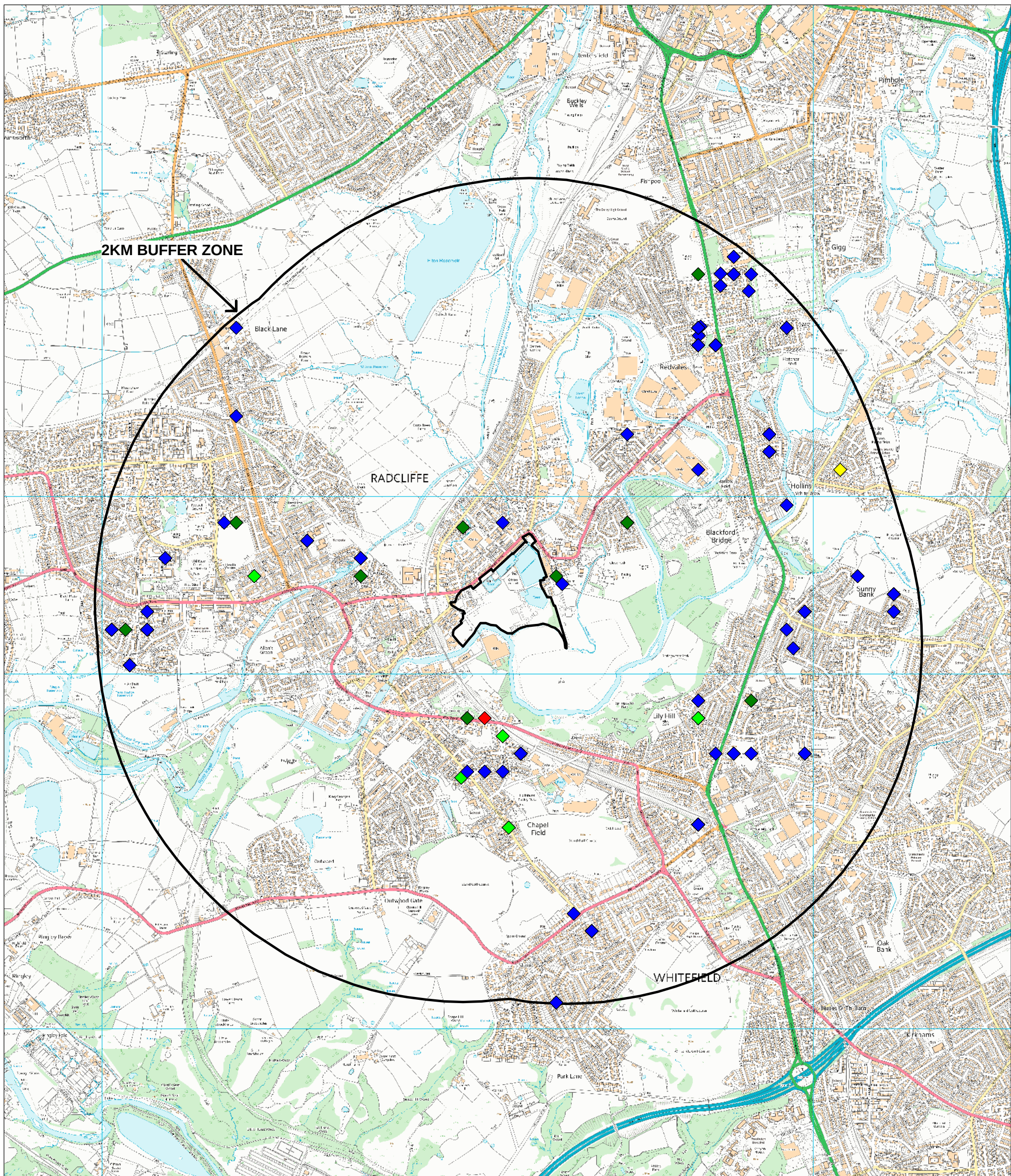
This Act offers protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

It's application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.



Appendix B – Desk Study Data



KEY
BAT ROOSTS

- ◆ BAT SP
- ◆ COMMON PIPISTRELLE
- ◆ NOCTULE BAT
- ◆ PIPISTRELLE SP
- ◆ SOPRANO PIPISTRELLE

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SD 79310 07386
EAST LANCS PAPER MILL - MAP 4

SCALE 1:20,000

BAT DATA COURTESY OF SOUTH LANCS BAT GROUP

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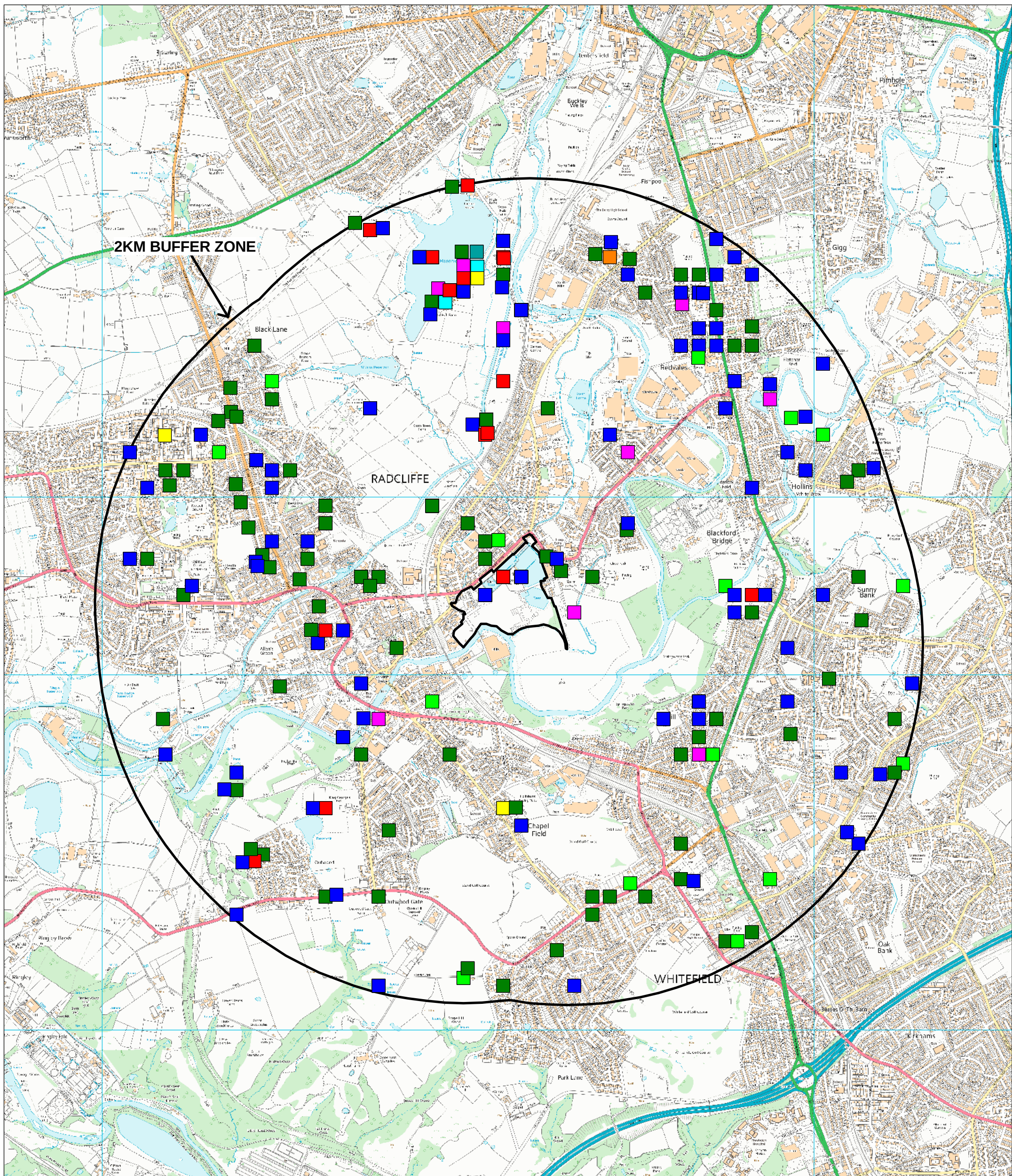
TAMESIDE MBC LICENCE NO LA100022697, 2016



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Date Produced: 15/11/2016



KEY

BATS OTHER SIGNS

- BAT SP
- COMMON PIPISTRELLE
- DAUBENTON'S BAT
- MYOTIS SP
- NATHUSIUS'S PIPISTRELLE
- NATTERER'S BAT
- NOCTULE BAT
- PIPISTRELLE SP
- SOPRANO PIPISTRELLE

GREATER MANCHESTER ECOLOGY UNIT ECOLOGICAL SEARCH - SD 79310 07386 EAST LANCS PAPER MILL - MAP 5

SCALE 1:20,000

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