Dinting Vale, Glossop

BAT ACTIVITY REPORT

784 - B039096

Wain Homes

November 2022

Prepared on Behalf of Tetra Tech Group Limited. Registered in England number: 6595608

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EXECUTIVE SUMMARY

Contents	Summary
Site Location	The site is located south off the A57 Dinting Vale, Glossop (centred at Ordnance Survey National Grid Reference SK 01926 94214).
Proposals	The proposal is for a new residential development of 100 properties, associated infrastructure and landscaping.
Existing Site Information	• Ecological Appraisal (TEP, 2022) • Breeding Bird Survey report (Tetra Tech, 2022a); • Bat Tree Climbing report (Tetra Tech, 2022b); • GCN eDNA letter report (Tetra Tech, 2022c); • Badger report (Tetra Tech, 2022d) • Biodiversity Net Gain (BNG) assessment (Tetra Tech, 2022e); • Reptile report (Tetra Tech, 2022f); and • Invasive non-native species report (Tetra Tech, 2022g)
Scope of this Survey(s)	The scope of the bat activity surveys is to provide an assessment of the species assemblage of foraging and commuting bats within the site and the temporal and spatial distribution of bats across the site. The results of the assessment will then be considered against the likely effects of the proposed development of the site, and recommendations for mitigation and enhancement have been made where necessary and / or possible.
Results	Up to nine species of bat were recorded using the habitats across the site. During the walked transects common pipistrelle comprised the majority of the calls recorded. Common pipistrelle, soprano pipistrelle, brown long-eared, noctule and *Myotis sp.* were recorded during the automated surveys. Boundary habitats including broadleaved woodland were used as foraging / commuting routes. The site was assessed to be of county level importance for commuting bats and 'District, local or parish' level for foraging bats based on the Wray *et al.* (2010) method.
Recommendations	Measures to avoid and mitigate the potential effects of the development upon foraging and commuting bats include: • Retention and protection of existing boundary features through the implementation of appropriate buffers of 5m minimum but ideally 10m; • Lighting restrictions and sympathetic lighting design to be implemented to create dark corridors (to be secured by condition); • Enhancement of the site through bat friendly planting and creation of new hedgerows and linear features; and • Enhancement of the site through creation of roosting features i.e. building mounted boxes / bricks and tree mounted boxes.

GLOSSARY

BCT	Bat Conservation Trust
CEnv	Chartered Environmentalist
CIEEM	Chartered Institute of Ecology & Environmental Management
DEFRA	Department for the Environment, Food and Rural Affairs
EPS	European Protected Species
EPSL	European Protected Species Licence
Natura 2000 site	A European site designated for its nature conservation value
NE	Natural England
NPPF	National Planning Policy Framework
PPN	Passes Per Night
SAC	Special Area of Conservation
SSSI	Site(s) of Special Scientific Interest
W&CA	Wildlife & Countryside Act 1981 (as amended)

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by Wain Homes Ltd in June 2022 to undertake bat activity surveys to inform the proposed development at Dinting Vale, Glossop, Derbyshire (hereafter referred to as 'the site').

This follows the completion of an Ecological Appraisal undertaken in February 2022 by TEP (TEP, 2022).

This report has been prepared by Tetra Tech Consultant Ecologist Katrina Caine BSc (Hons) and the conditions pertinent to it are provided in Appendix A.

1.2 SITE LOCATION

The site is located south off the A57 Dinting Vale, Glossop, eastern Manchester (centred at Ordnance Survey National Grid Reference SK 01926 94214) (Figure 1). The site includes plantation broad-leaved woodland in the north with scattered broad-leaved trees throughout the site. The southern area of the site is dominated by marsh/marshy grassland with areas of dense/continuous scrub and tall ruderal. There is also a pocket of semi-improved neutral grassland to the north of the site and a hardstanding road forming access to existing adjacent residential properties and an area of running water in the northeast corner of the site.

The site is bordered to the north by the A57 Dinting Vale; to the west by woodland and a rail corridor; and to the east and south by woodland and residential dwellings.

1.3 DEVELOPMENT PROPOSALS

It is understood that a new residential development is proposed with 100 properties, associated infrastructure and landscaping (Appendix D - Site drawing: CLPD 006). The proposed development layout plan shows that the marshy grassland, semi-improved neutral grassland, semi-improved acid grassland, unimproved acid grassland, plantation woodland, tall ruderal, introduced shrub and scrub will mostly be lost to facilitate the proposals.

1.4 PURPOSE OF THE REPORT

The bat activity surveys include the following objectives:

- Identify bat species assemblage on site, including the presence of common, rarer or rarest species of bat;
- Categorise the value of the site for bats (as per Wray, et al 2010);
- Interpret the spatial and temporal distribution of bat activity across the site; and
- Review the likely effects of the proposed development of the site on bat species and provide recommendations for mitigation and enhancement where necessary and / or possible.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading. Relevant legislation and planning policy are included in Appendix B.

2.0 METHODOLOGY

2.1 DESK STUDY

2.1.1 Previous Reports

The site has previously been subject to an Ecological Appraisal in February 2022 (TEP, 2022) which identified the habitats and ecological constraints present onsite.

Additionally, Tetra Tech have completed the following ecological surveys:

- Breeding Bird Survey report (Tetra Tech, 2022a);
- Bat Tree Climbing report (Tetra Tech, 2022b);
- GCN eDNA letter report (Tetra Tech, 2022c);
- Badger report (Tetra Tech, 2022d)
- Biodiversity Net Gain (BNG) assessment (Tetra Tech, 2022e);
- Reptile report (Tetra Tech, 2022f); and
- Invasive non-native species report (Tetra Tech, 2022g)

2.1.2 Local Ecological Records Centre

No update data search was undertaken to inform this report, as the 2022 data within the *Dinting Vale, Glossop Ecological Assessment* (TEP, 2022 was considered to be valid as it is less than 12 months old.

2.1.3 MAGIC Website

A search of data using DEFRAs MAGIC website was undertaken to identify EPSLs granted in the local area (2 km).

2.2 WALKED TRANSECTS

The site was assessed as having moderate value to bats during the Ecological Appraisal. As such in accordance with guidance set out in the *Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Collins, 2016)*, one survey visit per month was completed between June and October, with one survey in August 2022 consisting of a dusk survey followed by a dawn survey within one 24-hour period.

All surveys were completed when weather conditions were suitable (i.e. not during heavy rain, low temperatures or strong winds).

Dusk and dawn activity surveys were completed using two surveyors, following a pre-determined transect route incorporating all accessible habitat types that are considered to be of value to foraging and commuting bats. Dusk surveys commenced at sunset and concluded 2 hours after sunset. The dawn survey commenced 2 hours before sunrise and concluded at sunrise. Weather conditions (temperature, precipitation, and wind speed) were recorded at the start and end of each survey and survey dates and weather conditions are provided in Table 1.

The surveyor teams included:

- 30th June 2022 – Tetra Tech Project Ecologist Jade Armstrong BSc (Hons) MSc (NE Class 1 survey licence number CL29/00531) & Tetra Tech Assistant Ecologist Lucy Bennison BSc (Hons);
- 14th July 2022 – Tetra Tech Consultant Ecologist Katrina Caine BSc (Hons) & Tetra Tech Field Ecologist Helen Starmer- Allen;
- 4th August 2022 – Tetra Tech Consultant Ecologist Katrina Caine & Tetra Tech Field Ecologist Lucia Ruiz Mut;

- 5th August 2022 – Tetra Tech Consultant Ecologist Katrina Caine & Tetra Tech Field Ecologist Lucia Ruiz Mut;
- 7th September 2022 – Tetra Tech Consultant Ecologist Katrina Caine & Tetra Tech Field Ecologist Helen Starmer-Allen; and
- 6th October 2022 – Tetra Tech Project Ecologist Jade Armstrong & Tetra Tech Consultant Ecologist Katrina Caine

Table 1: Survey Dates and Weather Conditions

Survey No.	Date	Time		Air Temperature (°C)		Wind Speed Beaufort scale		Cloud Cover (%)		Precipitation start of survey (%)
		Start sunrise/ sunset	End	Initial	Final	Initial	Final	Initial	Final	
1	30th June 2022	21:40	22:07	15°C	15°C	2	2	80%	75%	0% Light rain at start of survey. Rain started at 21:55. At 22:07 survey was concluded due to heavy rain.
2	14th July 2022	21:30	23:30	18°C	15°C	1	1	30%	30%	0%
3	4th August 2022	20:59	22:59	14°C	15°C	1	1	20%	40%	0%
4	5th August 2022	03:30	05:30	10°C	11°C	1	2	70%	80%	10%
5	7th September 2022	19:43	21:43	15°C	12°C	1	1	70%	65%	0%
6	6th October 2022	18:33	20:33	13°C	13°C	3	2	85%	80%	0%

The surveyors noted bat activity, using both visual observation and audio bat detectors to identify foraging and / or commuting behaviour. Surveyors recorded the time and a description of any activity. Additionally, where bats could be seen, the patterns and directions of the bats' flight were also recorded.

Surveyors were all experienced at conducting bat surveys. All surveys were completed using an Elekon Batlogger M2 (full spectrum detectors) and were walked along a set transect at a steady pace. The direction in which the transect was walked was changed between surveys in order to record activity around the site at different times. The recorded data was analysed using Bat Explorer to confirm the species' present onsite. The recordings and the field notes were used to help build a picture of bat use across the site and to identify areas of relatively higher use.

The transect route for each survey is shown in Figure 2.

Heat Map

The spatial analyst extension was used within ArcGIS to analyse Batlogger point bat data. An activity heat map was produced to highlight the density of the bat data, visually using the colour spectrum of green for low and red for high, but also statistically using quantitative outputs calculated by the kernel density spatial analysis tool.

2.3 AUTOMATED STATIC MONITORING

In accordance with *Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Collins, 2016)*, 2 automated bat detector(s) (Anabat Express) were deployed at 2 locations as shown in Figure 2. These locations were chosen according to the BCT, 2022 guidance which covers all habitats represented in the survey area which will be impacted.

Details of relevant foraging and commuting habitat in each chosen static location is provided in Table 2 along with the nearest roost location (based on desk study data) and justification for choosing that location.

The northern static (static 1) was placed on a wooden post with wire fencing, with surrounding habitat consisting of scrub, tall ruderal broad-leaved woodland.

The southern static (static 2) was placed on a tree on the boundary of the site, with the surrounding habitat consisting of tall ruderal, neutral grassland and a strip of broad-leaved woodland.

Table 2: Relevant Habitat Information for Each Static Location

Static Location Grid reference	Phase 1 habitat in location	Linear features within 50m	Justification	Nearest Known Roost Location
Static 1 - North - SK 01946 94319	Dense/ continuous scrub, woodland to the north.	A strip of broad-leaved woodland; fencing that runs the length of the site to the north.	Location of static detectors was based on the habitats with the highest probability of bat use. The North static detector was positioned within the woodland habitat where the entrance road to the development is being created, this will create significant habitat loss within the woodland. The South static detector was positioned within the grassland habitat which represents the habitat which will be lost due to development.	A bat roost known to contain common pipistrelle and soprano pipistrelle 0.5 km northwest of the site; recorded in 2012.
Static 2 - South - SK 01852 94036	Dense/ continuous scrub, woodland to the southeast and mosaic of grasslands to the northwest.	A strip of broad-leaved woodland to the south and southeast of the site. A section of brick walls and wooden fencing separating the residential gardens from the site.		

The static detectors were left to record for a minimum of five consecutive nights in suitable weather conditions within each of the sampled months (June to October inclusive). Surveys were not contiguous, i.e. they were spaced out to include a reasonable time gap between each monitoring period. The first 5 nights were used for the analyses given that the weather conditions were suitable; the remaining nights were discounted. The detectors were set to 'Night Only' mode and recorded 30 minutes prior to sunset and finished 30 minutes after sunrise and all calls were recorded in zero crossing. A summary of the weather conditions during the static monitoring is provided in Table 3.

Table 3: Monitoring Dates and Weather Conditions

Monitoring Period / Month.	Dates	Average air Temperature (°C)		Average Wind Speed	Average Precipitation (%)
		Initial	Final		
June (Summer)	30.06.2022	20°C	16°C	*Slight breeze*	None
	01.07.2022	17°C	15°C	*Slight breeze*	10%
	02.07.2022	18°C	15°C	*Slight breeze*	None
	03.07.2022	17°C	13°C	*Breeze*	None
	04.07.2022	17°C	15°C	*Breeze*	None
July (Summer)	21.07.2022	18°C	16°C	*Slight breeze*	None
	22.07.2022	19°C	16°C	*Slight breeze*	None
	23.07.2022	20°C	18°C	*Breeze*	None
	24.07.2022	19°C	16°C	*Slight breeze*	None
	25.07.2022	16°C	14°C	*Breeze*	15%
August (Autumn)	14.08.2022	25°C	21°C	*Slight breeze*	None
	15.08.2022	22°C	18°C	*Slight breeze*	20%
	16.08.2022	20°C	16°C	*Slight breeze*	10%
	17.08.2022	19°C	15°C	*No breeze*	None
	18.08.2022	19°C	18°C	*Slight breeze*	15%
September (Autumn)	21.09.2022	17°C	12°C	Slight breeze	None
	22.09.2022	14°C	13°C	*No breeze*	None
	23.09.2022	16°C	10°C	*Slight Breeze*	None
	24.09.2022	14°C	10°C	*Breeze*	None
	25.09.2022	13°C	12°C	*Slight breeze*	10%
October (Autumn)	06.10.2022	15°C	14°C	*Breeze*	None
	07.10.2022	11°C	9°C	*Slight breeze*	None
	08.10.2022	12°C	9°C	*Slight breeze*	None
	09.10.2022	14°C	10°C	*Breeze*	15%
	10.10.2022	12°C	8°C	*Slight breeze*	None

All static detectors were positioned at approximately 1.5m height and in each case, the omnidirectional microphone of the Anabat Express was positioned on the side with the microphone facing north (see Figure 2

for location). Calls were subsequently analysed using Analook software (Version 1.0.2.0). Russ (2021) was used to assist with the call analysis. Data is presented as an activity index of bat passes per night (total number of passes in one night).

2.4 LIMITATIONS

The monthly survey effort (i.e. number of walked transects and length of static monitoring) was based on current survey guidance *Bat Conservation Trust's Bat Surveys: Good Practice Guidelines*, (Collins, 2016), however due to the timing of the commission (June 2022) surveys in April and May were not completed. Furthermore, the survey undertaken in June was subject to rainfall and therefore did not comprise a full 2 hours past sunset. However, these limitations to survey effort have not affected the conclusions of this assessment, as data has been collected in optimal conditions, June through to October, which is considered to be reflective of the general activity and assemblages expected on site, when reviewed against desk study information, habitats present and professional judgement. Furthermore, bats were recorded during the June activity post sunset, commuting routes and preferred foraging areas were still captured during this activity survey.

Static monitoring was undertaken in generally suitable weather conditions; nights which had rainfall (see Table 3) were not considered a constraint due to precipitation only lasting a short time during the night and rainfall was not heavy.

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*) (Russ, 2012). Where call parameters are inconclusive the species has been labelled as 'unknown'. This ensures the dataset is interpreted accurately and transparently.

Notwithstanding the limitations highlighted above, the survey effort applied is considered sufficient to meet the aims of the survey and this report, in accordance with the aforementioned guidelines.

The details of this report will remain valid for a period of **one year** 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 development proposals which this report was based on.

3.0 VALUING BAT POPULATIONS IN A WIDER ECOLOGICAL CONTEXT

The assessment of the value of the bat population on site was based on the method proposed by Wray *et al.* (2010). Using this method bat activity, species and number was used to assign a relative ecological value. The value to the species was partly based upon how well used a habitat is and also upon how rare the bat species is. In the case of commuting routes or foraging areas the number of roosts nearby is also a factor. Once the value of the bat population was calculated, robust mitigation for any impact on the bats was determined.

British bat species have been subdivided into groups, dependant on how common they are: common, rarer and rarest. These have been further subdivided based upon the location surveyed. Table 4 presents the rarity categorisation of bats in England (Wray *et al.*, 2010).

Table 4: Categorising bats by distribution and rarity in England (scientific names not given)

Country: England		
Rarest	**Rarer**	**Common**
Greater horseshoe Bechstein's Alcathoe Greater mouse-eared Barbastelle Grey long-eared	Lesser horseshoe Whiskered Brandt's Daubenton's Natterer's Leisler's Noctule Nathusius' pipistrelle Serotine	Common pipistrelle Soprano pipistrelle Brown long-eared

To calculate the score for either commuting routes or foraging areas the numerical values from each column below are added together. These are detailed in Table 5 and 6.

Table 5: Valuing commuting routes

Species	Number of bats	Roosts/potential roosts nearby	Type and complexity of linear features
Common (2)	Individual bats (5)	None (1)	Absence of (other) linear features (1)
-	-	Small number (3)	Unvegetated fences and large field sizes (2)
Rarer (5)	Small number of bats (10)	Moderate number/Not known (4)	Walls, gappy or flailed hedgerows, isolated well grown hedgerows, and moderate field sizes (3)
-	-	Large number of roosts or close to a Site of Special Scientific Interest (SSSI) (5)	Well grown and well-connected hedgerows, small field sizes (4)
Rarest (20)	Large number of bats (20)	Close to or within a Special Area of Conservation (SAC) for the species (20)	Complex network of mature well-established hedgerows, small fields and rivers/streams (5)

Table 6: Valuing foraging areas

Species	Number of bats	Roosts/potential roosts nearby	Foraging habitat characteristics
Common (2)	Individual bats (5)	None (1)	Industrial or other site without established vegetation (1)
-	-	Small number (3)	Suburban areas or intensive arable land (2)
Rarer (5)	Small number of bats (10)	Moderate number/Not known (4)	Isolated woodland patches less intensive arable and/or small towns and villages (3)
-	-	Large number of roosts or close to an SSSI (5)	Larger or connected woodland blocks, mixed agriculture and small villages/hamlets (4)
Rarest (20)	Large number of bats (20)	Close to or within an SAC for the species (20)	Mosaic of pasture, woodlands and wetland areas (5)

Finally, for commuting routes and foraging areas, the ecological value of the site is based upon the scoring system shown in Table 7.

Table 7: Scoring system for valuing commuting and foraging bats

Geographic frame of reference	Score
International	>50
National	41-50
Regional	31-40
County	21-30
District, local or parish	11-20
Not important	1-10

4.0 RESULTS

4.1 DESK STUDY

4.1.1 Previous Survey Results

The Ecological Appraisal completed by TEP in February 2022 (TEP, 2022) states that the woodland and dense scrub within the site provide opportunities for commuting and foraging bats, TEP recommended bat activity and transect surveys and automated static detector surveys be undertaken.

4.1.2 Local Records Centre

Records for bats within 2 km of the site were previously requested from Derbyshire Wildlife Trust (Derbyshire Biological Records Centre) by TEP as part of the preliminary ecological appraisal (TEP, 2022). The desk study returned records for brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, Myotis species and Pipistrelle species within 2 km of the site. The closest record was for 200m east of the site and was for common pipistrelle and unknown bat species.

4.1.3 MAGIC

A search of data using DEFRAs MAGIC website identified seven bat licences granted in between 2013-2023 within 2 km radius of the site shown in Table 8.

Table 8: EPSML's within 2km.

License No.	Species	Distance and direction from site	Roost Type	License Validity
EPSM2012-5014	Common pipistrelle and Soprano pipistrelle	0.5 km NW	Destruction of a resting place	24/10/2012-31/07/2014
EPSM2013-6462	Common pipistrelle	1.5 km N	Destruction of a resting place	21/10/2013-31/08/2014
2015-17208-EPS-MIT	Common pipistrelle	1.6 km SE	Destruction of a resting place	05/11/2015-01/11/2020
2015-17859-EPS-MIT	Common pipistrelle, Brandt and whiskered	1.5 km W	Unknown	10/12/2015-09/12/2020
2018-33461-EPS-MIT	Common pipistrelle	1.5 km N	Unknown	08/03/2018-07/03/2023
2018-36005-EPS-MIT	Common pipistrelle	1.7 km E	Damage of a resting place	23/07/2018-19/07/2023
2020-49464-EPS-MIT	Common pipistrelle	1.3 km NE	Destruction of a resting place	13/10/2020-31/05/2021

4.2 WALKED TRANSECTS

Refer from Figure 3 to Figure 7 for results of the transect surveys.

Five species of bat were recorded during the activity surveys -common pipistrelle, soprano pipistrelle, brown long-eared bat, noctule and *Myotis sp*. Recordings were dominated by common pipistrelle with occasional recordings of brown long-eared bat, noctule and *Myotis sp*. **The highest level of foraging was recorded along the east and north boundary.**

During the surveys common pipistrelle were observed foraging repetitively along the area of scrub and woodland to the east, north and south of the site. Other species consisting of soprano pipistrelle, noctule and *Myotis sp.* were recorded in various locations on the site, both towards the north and south of the site.

A comparatively low level of foraging and commuting was recorded along the western boundary, comprising mostly common pipistrelles along woodland, scrub and grassland.

4.2.1 Spatial and Temporal Distribution of Bat Activity

Table 9 summarises the results of the walked transect surveys and spatial distribution of bat activity. The results should be read in conjunction with Figures 3-7 which illustrate the locations of bat calls recorded and heat maps. Please note that the transect data does not distinguish between individual or multiple bats but where multiple bats were observed interacting this is highlighted qualitatively.

Table 9: Bat activity Recorded on Transect Surveys

Date	Type	Relative Figures	Species Recorded	Spatial Distribution of Activity
30.06.2022 (Summer)	Dusk	Figure 3	Common pipistrelle	Common pipistrelle was the only recorded species, with a total of 38 passes recorded. Activity was associated with the eastern boundary (lower levels of data recorded for 30.06.2022 activity transect due to the survey duration following rain).
14.07.2022 (Summer)	Dusk	Figure 4	Common pipistrelle, *Myotis sp*., Soprano pipistrelle and Noctule	Summer 14.07.2022 had the greatest levels of activity seasonally, with a total of 190 passes recorded. Common pipistrelle was the most frequently recorded species, with a total of 177 passes recorded. Activity was associated with the eastern boundary but particularly concentrated in the northeast of the site with records to the south and single records around the west and east perimeter. *Myotis Sp*. were the next most abundant species recorded, with a total of 10 passes observed. All of the activity was foraging over tall ruderal, neutral grassland and a strip of broad-leaved woodland to the south of the site.

				Three soprano pipistrelle passes were recorded to the south of the site along with one noctule pass which was also recorded at the southern boundary of the site.
04.08.2022 (Autumn)	Dusk	Figure 5	Common pipistrelle, *Myotis Sp*. and soprano pipistrelle.	Common pipistrelle was the most frequently recorded species, with a total of 53 passes recorded. Activity was clustered to the west and northeast with single passes being recorded in the center of the site. *Myotis Sp*. were the next most abundant species recorded, with a total of 2 passes observed. The majority of foraging activity was in the northwest of site. One Soprano pipistrelle species pass was recorded towards the east of the site.
05.08.2022 (Autumn)	Dawn	No bats recorded	No bats were recorded during this walked transect.	Overall bat activity was lowest in Autumn 05.08.2022 (Dawn activity) with no bats recorded throughout the survey. No bats were recorded during this walked transect.
07.09.2022 (Autumn)	Dusk	Figure 6	Common pipistrelle, *Myotis Sp*. and brown long-eared bat.	Common pipistrelle was the most frequently recorded species, with a total of 155 passes recorded. Activity was associated with the northern boundary but particularly concentrated in the north. *Myotis Sp*. were the next most abundant species recorded, with a total of 6 passes observed. The majority of foraging activity was in the central section of site on the eastern side. One Brown long eared species pass was recorded at the southern boundary of the site.
06.10.2022 (Autumn)	Dusk	Figure 7	Common pipistrelle	Common pipistrelle was the only recorded species, with a total of 49 passes recorded. Activity was associated with the northeastern boundary of the site.

4.3 AUTOMATED STATIC MONITORING

The static locations can be seen on Figure 2.

The species recorded on the north static (static 1) predominantly consisted of common pipistrelle (91%), brown long-eared bat (3.7%) and *Myotis sp* (3.1%). Less commonly recorded species included noctule (0.9%) and soprano pipistrelle (0.4%).

The species recorded on the south static (static 2) predominantly consisted of common pipistrelle (87.2%), *Myotis sp* (7.8%) and brown long-eared bat (2.7%). Less commonly recorded species included soprano pipistrelle (1.81%) and noctule (0.3%).

The highest bat activity was recorded in July on the northern static, the recordings were dominated by common pipistrelle. The level of activity decreased in October and remained at a consistently, comparatively low level.

There is a significant difference between the north and south of the site, with most of the bat species being recorded within the north of the site compared to the south.

Detailed results of the automated activity surveys are shown in Appendix C.

Table 10: Summary of Overall Bat Activity between June and October by static location.

Month	Bat Activity Levels (bat passes per night (PPN))	Static Location	
		1- North	2- South
June	Maximum	61	455
	Mean	12.2	91
	Median	5	29
July	Maximum	879	35
	Mean	175.8	7
	Median	5	2.5
August	Maximum	206	48
	Mean	41.2	9.6
	Median	5	3
September	Maximum	2	332
	Mean	0.4	66.4
	Median	2	4.5
October	Maximum	68	10
	Mean	13.6	2
	Median	2	1

4.3.1 Spatial Distribution of Bat Activity

Bat Activity Distribution in Summer

Bat activity saw common pipistrelle being the most frequently recorded species across both the north and south static. The north static had the most diverse species assemblage with a higher number of *Myotis sp*., noctule, and brown long eared being recorded than the south; the north static was also the highest level of activity.

Bat Activity Distribution in Autumn

Bat activity saw common pipistrelle being the most frequently recorded species across both the north and south static. The north static had the most diverse species assemblage with a higher number of *Myotis sp*., noctule, and soprano pipistrelle being recorded than the south; the south static was also the lowest level of activity.

4.3.2 Temporal Patterns of Bat Activity

The north static (static 1) saw a higher number of common pipistrelles passes per night during July, with August having the second highest abundance then October, June and finally September being the lowest. The south static (static 2) saw a higher number of common pipistrelle passes per night in June compared to July, August, September and October.

The north static (static 1) recorded a higher number of *Myotis sp*. In August, with June being the second highest abundance then October and September the lowest. The south static (static 2) recorded a higher number of *Myotis sp.* passes per night in September, with June having the second highest abundance and July the lowest.

The north static (static 1) recorded Noctule during August and September, with no passes being recorded in either June, July or October.

The south static (static 2) recorded Noctule during July and August, with no passes being recorded in either June, September or October.

5.0 DISCUSSION

5.1 SPECIES ASSEMBLAGE

The following species were recorded within the study area, which have been categorised by distribution and rarity (SNH, 2019):

Common (Populations over 100,000 in England)

- Common pipistrelle
- Soprano pipistrelle
- Brown long-eared bat

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

- Myotis species (including Daubenton's, Natterer's and whiskered/Brandt's/Alcathoe)
- Noctule

There is also a 'Rarest' category, however no bats recorded on the site fall within this category.

5.2 POTENTIAL IMPACT OF THE DEVELOPMENT ON BATS

5.2.1 Valuation of Bat Population Using the Site

The results of the walked transect and automated detector surveys indicate that the site is of some value for local bat assemblage. The site was found to be of value at a 'County' level for commuting bats and 'District, local or parish' level for foraging bats based on the Wray *et al*. (2010) method. This assessment is based upon the following valuations:

Commuting routes

- Small number of rarer species foraging in an area with unknown roosts nearby within a habitat that contains walls, gappy or flailed hedgerows isolated well grown hedgerows, and moderate field sizes. 5+10+4+3 = 22 indicating a commuting route of 'County' level.

Foraging areas

- Individual bats of common species in an area with unknown roosts nearby within larger or connected woodland blocks, mixed agriculture, and small villages/hamlets. 5+2+4+4 = 15 indicating a foraging area of 'District, local or parish' level.

The majority of bat calls and activity was recorded around the woodland to the east of the site; which is an area used by the horses to feed. In addition, the south static recorded the highest level of species diversity and the most *Myotis sp.* calls when compared with the results from the north static.

The bat species assemblage recorded on site comprised of predominantly common and widespread species well recorded within the Glossop area; and rarer species (*Myotis sp.* and Noctule) were also recorded but the overall percentage was much lower. Common pipistrelle were the most frequently recorded species.

5.2.2 Impacts on Foraging and Commuting Habitat

The proposed development will result in a loss of foraging and commuting habitat, most notably for common pipistrelle which were observed in flight in the eastern, southern and northern section of the site, see Figure 8.

The extent of the proposals are unlikely to have a significant effect on the viability of bat roosts if present within the local area, however in the absence of mitigation the proposals are likely to result in a negative impact upon commuting and foraging bats.

In the absence of mitigation, the proposals are likely to result in a negative impact upon the core sustenance zone (CSZ) of commuting and foraging bats within the site. A CSZ, as applied to bats, refers to 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 (BCT, 2020). Data from the static monitoring showed that common pipistrelle were the most frequently recorded species within the site accounting for 89% of the bat calls recorded. BCT (2020) states that the primary habitat for common pipistrelle foraging is woodland, which is noted as a habitat to the north and surrounding the periphery of the site; woodland habitat is situated within 50m of both the north static (static 1) and south static (static 2). The grassland habitats, although not stated as a primary CSZ habitat of common pipistrelle, is likely contributing to the provision of foraging of common pipistrelle. It is proposed that the grassland habitats will be lost as a result of the development, which has the potential to impact the foraging capacity of common pipistrelle within the local area. Grassland habitats, however, are common within the wider area (within 2km of the common pipistrelle CSZ radius) suggesting the loss of grassland habitat within the site to have minimal impacts on local foraging due to the abundance of wider habitat. The primary foraging feature of common pipistrelle, woodland to the northwest, is being retained within the proposed development (see Appendix D Site drawing: CLPD 006). In summary impacts to the habitats of most value located within the site boundary are anticipated to be minimal, with habitats considered to be a core sustenance zone being retained and/ or within the wider 2km CSZ radius for common pipistrelle.

The proposals for the housing development involve the installation of new lighting in order to enable the safe illumination of all residential areas. Bats are nocturnal species and are light averse. Lighting can illuminate bats in flight and may make them more vulnerable to predation, which would also affect the distribution of bats in the area. Lighting a commuting or foraging route may also impact upon the integrity of a roost, even if the roost itself is not directly affected see Section 6.1.

Some species of bat have been recorded to be particularly at risk of impacts from increases in artificial light, including *Myotis sp*. which were recorded on site. In the absence of mitigation, increased lighting as part of the proposals has the potential to negatively impact the local bat population.

Measures to mitigate for this impact are outlined in Section 6.0 below.

6.0 MITIGATION AND ENHANCEMENT MEASURES

6.1 MITIGATION

The following measures are recommended to help mitigate for the predicted impacts of the development proposals:

- Lighting scheme;
- Tree and hedgerow retention / replacement; and
- Landscaping design.

Lighting Scheme

The Institution of Lighting Professionals (ILP) states that the impacts from artificial lighting on bats are likely to have significant impacts on some species, potentially affecting reproductive, foraging and roosting opportunities (ILP, 2018).

During the proposed works:

It is advised that no night-time working is undertaken between the months of April to October inclusive (during the bat activity season), where possible. If security lighting is necessary, lighting must avoid the location of suitable commuting, foraging and roosting habitat identified (woodland areas) and lights triggered by motion sensors should be used and their coverage should be kept to a minimum (e.g. through use of lighting cowls).

During construction phase:

No night-time working will be undertaken between the months of April to October inclusive (during the bat active season), where possible and If security lighting is necessary, lights triggered by motion sensors will be used and their coverage should be kept to a minimum (e.g. through use of lighting cowls).

During the operational phase:

Street lighting is expected to be implemented within the proposed development. In order to minimize the impact to bats arising from the new lighting, the lighting across the development footprint will be sensitively designed with bats in mind, so that valuable foraging and commuting areas are retained. The lighting design aims to result in zero upward light spill ad light spill of less than 1 lux onto retained and created habitats and features. Lighting should be switched off at night (particularly during the months of April – October inclusive when bats are active), or at least motion censored.

It is recommended that lighting on the development site comprise LED lamps, with a low colour correlated temperature – preferably below 3500K (warm white). Lighting should be directed groundward to avoid light spillage, with hoods / shields as necessary. Light spill on boundary features to be used by commuting bats should be a maximum of 1lux above existing levels. No external lighting will be directed at the retained vegetated boundaries

The results of the survey suggest that the northern, eastern and southern woodland may be an important commuting pathway for local bats. As such, the lighting levels should avoid impacting commuting bats along these routes. A dark buffer / corridor must be maintained around the woodland habitats which are the areas most commonly used by *Myotis sp*,

The majority of bats on the site were identified commuting and foraging along the boundary features of the site, bats will use edge habitats to commute and forage (BCT, 2016). Therefore, it is considered appropriate that dark buffer zones will be maintained along the perimeter woodland of the site along with the current track to the north of the site.

Woodland & Habitat Retention / Replacement

The results of the surveys indicated that the features of most importance for bats on site were the boundary habitats, namely the northern, eastern and southern woodlands. In order to avoid potential impacts to these features, all boundary habitats are recommended to be retained as part of the proposals and protected with suitable buffers (minimum of 5m, but ideally 10m).

Landscaping Design

A diverse collection of native planting should be incorporated into the landscaping design within the proposed development site. Structurally diverse vegetation and the inclusion of native evening-blooming plants will attract insects which in turn will help to enhance the site for foraging bats. Landscaping designs within the site, should incorporate areas of woodland and scrub planting which will benefit foraging and commuting bats. Specific attention should be given to the border habitats, such as woodland and scrub areas, to the west and east in order to create more commuting and foraging opportunities within the development; and also to connect the site to other suitable habitat within the surrounding area. Planting of native tree species within the site, with the intention to create wildlife corridors (linear flight paths) connecting both north to south and west to east should be included within any landscape plans.

6.2 ENHANCEMENT MEASURES

Whilst enhancement is not a legal requirement, it is encouraged on site as it helps to meet the government objectives for planning to protect and enhance biodiversity, in accordance with the National Planning and Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government, 2021).

In relation to High Peak Local Plan policy ‘Policy EQ5 Biodiversity’, the following measures are recommended to enhance the site for biodiversity and for foraging and commuting bats:

- Provision of six bat boxes to be attached to either mature trees to the eastern and southern boundary or residential dwellings, the boxes recommended are Beaumaris Woodstone Bat Box and Vivara Pro Woodstone Bat Box or similar. These can be purchased from NHBS; and
- Infill planting of native species around the site boundaries.

The creation of novel habitats including ponds should also be considered within the site to encourage foraging by a diverse range of bat species, with areas of meadow grassland, orchard and scrub planting also considered useful for foraging bats. As detailed above, new planting should comprise native species. These habitat enhancements will provide additional foraging and commuting habitat for bats throughout the site specifically to the west and east of the site to provide enhancements to existing habitat and create new connections to suitable habitat within the surrounding area.

Lighting should be directed away from any newly implemented roosting features. Bat boxes should be located away from footpaths at a height of at least 4m and away from walls / fences to remove accessibility to cats.

7.0 REFERENCES

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FIGURES

Site Location Plan

Dinting Vale

Wain Homes Ltd

Legend

Site boundary

Notes:

Drawn by: CD

Checked by: JA

Office: Southampton

Figure No. 1

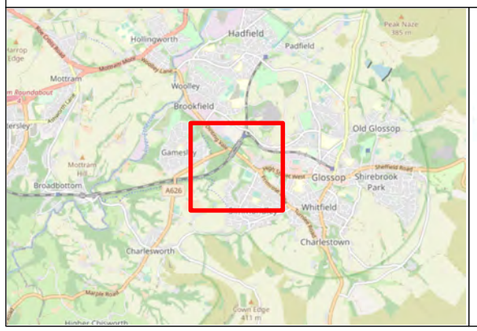
Revision No. A

0 50 100 150 200 250 Meters

Scale 1:5,000 @A3

18 August 2022

NGR: 401924E 394224N



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Hampshire, SO30 2AF

Walked Transect Route and Static Detector Plan

Dinting Vale

Wain Homes Ltd

Legend

- Site boundary
- Transect route
- Static detectors

Notes:

Drawn by: EC
Checked by: KC
Office: Southampton

Figure No. 2
Revision No. A

Scale 1:100,000 @A3 (0 – 25 – 50 – 75 Meters)

27 October 2022

NGR: 401924E 394224N

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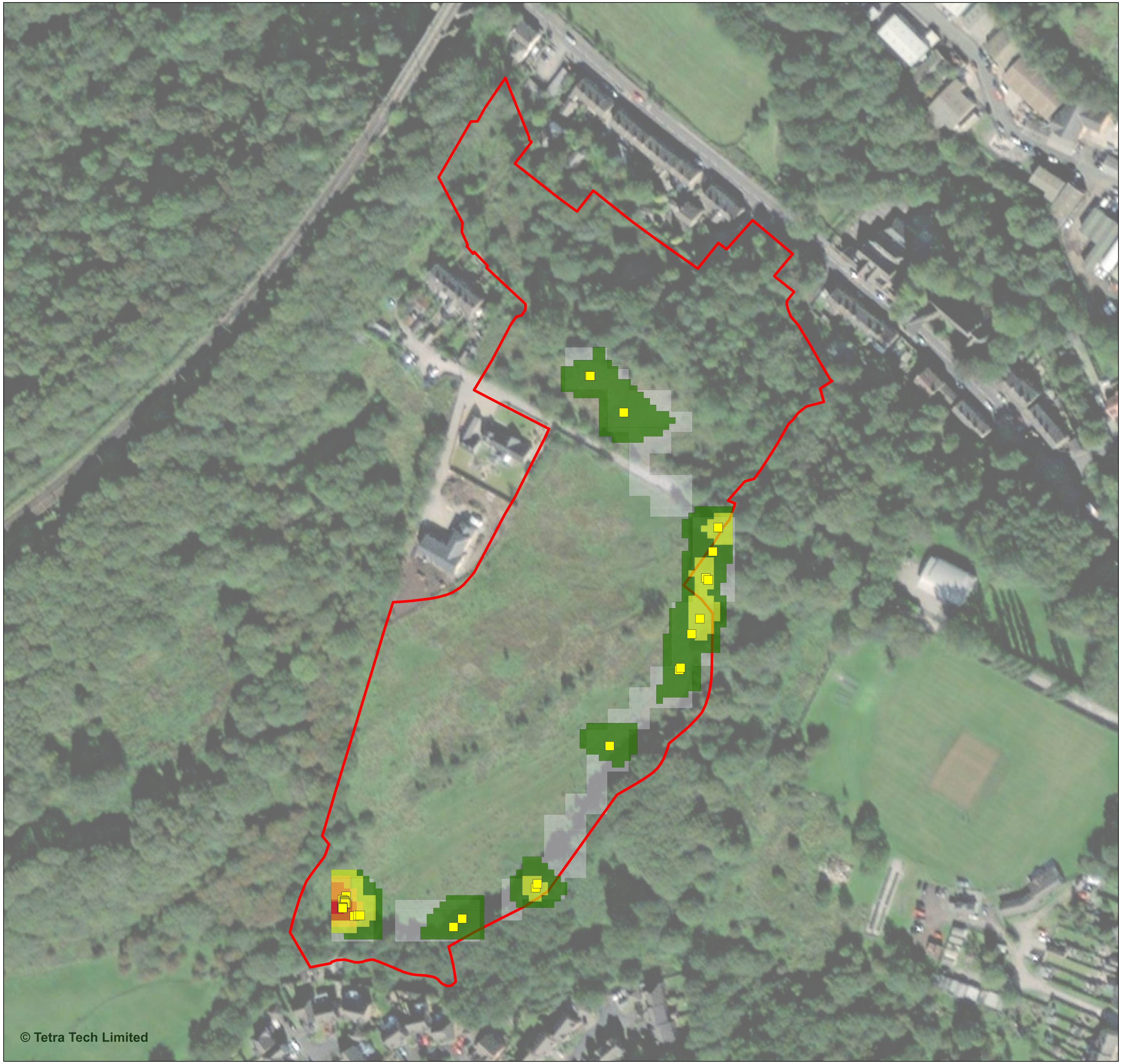
Hampshire, SO30 2AF



Bat Activity Transect 30.06.2022

Dinting Vale Glossop

Wain Homes Ltd

Legend

Site boundary

Expected Calls

- 1 - 10
- 10 - 50
- 50 - 100
- 100 - 200
- 200 - 248

Bats

- Common pipistrelle, Pipistrellus pipistrellus

Notes:

Drawn by: ELLA.CHRISTIE
Checked by: KC
Office: Southampton

Figure No. 3
Revision No. A
02 November 2022

0 25 50 75 Meters

Scale 1:1,750 @A3

British National Grid

NGR: 401924E 394224N

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Bat Activity Transect 14.07.2022

Dinting Vale Glossop

Wain Homes Ltd

Legend

Site boundary

Expected Calls

- 0 - 1
- 1 - 10
- 10 - 75
- 75 - 150
- 150 - 300
- 300 - 375
- 375 - 450
- 450 - 512

Bats

- Myotis sp., Myotis spec.
- Noctule, Nyctalus noctula
- Common pipistrelle, Pipistrellus pipistrellus
- Soprano pipistrelle, Pipistrellus pygmaeus

Notes:

Drawn by: ELLA.CHRISTIE
Checked by: KC
Office: Southampton

Figure No. 4
Revision No. A
02 November 2022

0 25 50 75 Meters

Scale 1:1,750 @A3

British National Grid

NGR: 401924E 394224N

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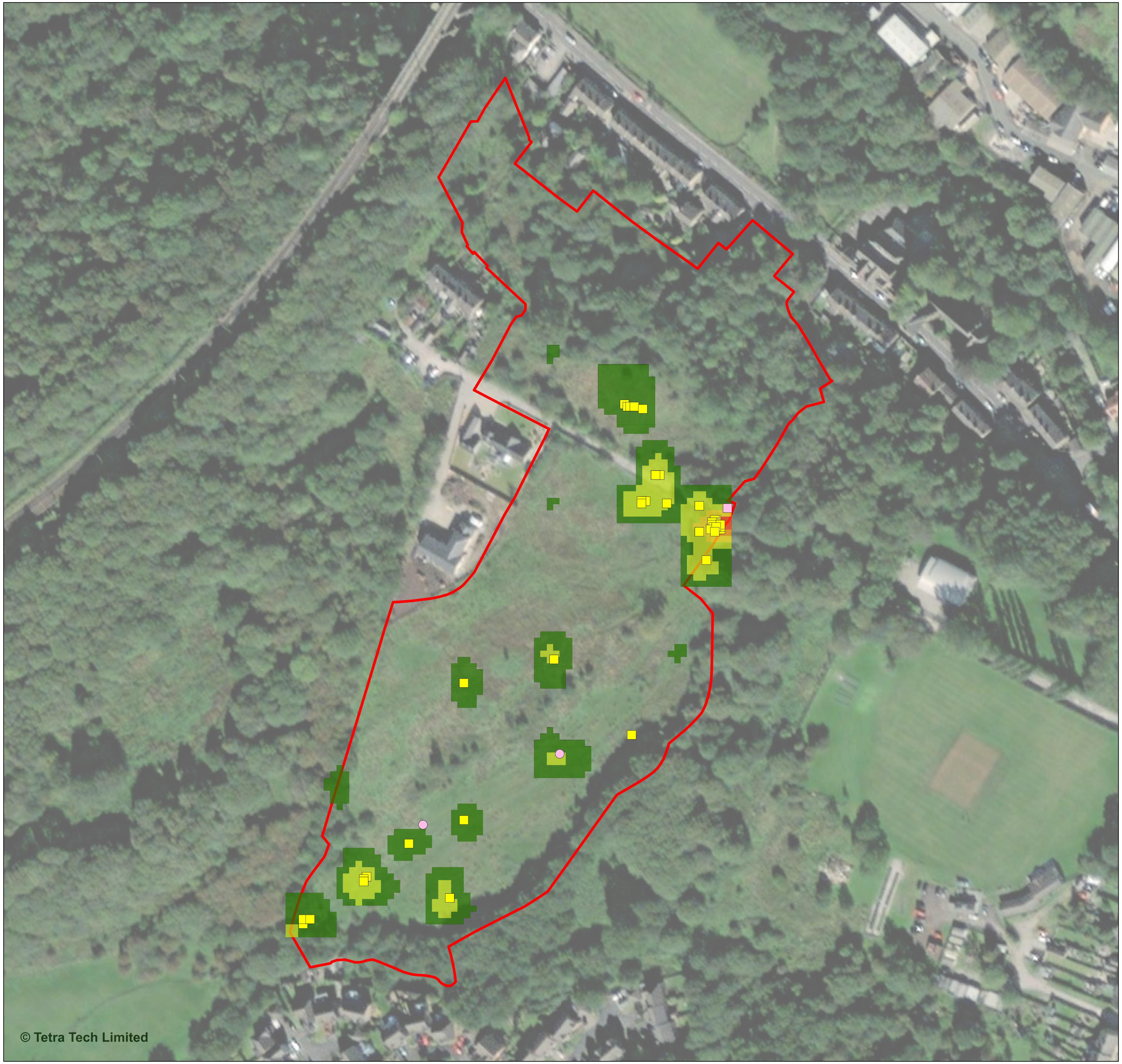

Bat Activity Transect 04.08.2022

Dinting Vale Glossop

Wain Homes Ltd

Legend

Site boundary

Expected Calls

- 0 - 1
- 1 - 10
- 10 - 50
- 50 - 100
- 100 - 150
- 150 - 195

Bats

- Myotis sp., Myotis spec.
- Common pipistrelle, Pipistrellus pipistrellus
- Soprano pipistrelle, Pipistrellus pygmaeus

Notes:

Drawn by: ELLA.CHRISTIE	Figure No. 5
Checked by: KC	Revision No. A
Office: Southampton	02 November 2022

0 25 50 75 Meters

Scale 1:1,750 @A3

British National Grid

NGR: 401924E 394224N

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Hedge End
Southampton
Hampshire, SO30 2AF

Bat Activity Transect 07.09.22

Dinting Vale

Wain Homes Ltd

Legend

Site boundary

Total expected counts

- 1-2
- 2-5
- 5-10
- 10-20
- 20-45
- 45-95

Myotis sp., *Myotis spec.*

Common pipistrelle, *Pipistrellus pipistrellus*

Brown long-eared bat, *Plecotus auritus*

Notes:

Drawn by: RD

Checked by: KC

Office: Southampton

Figure No. 6

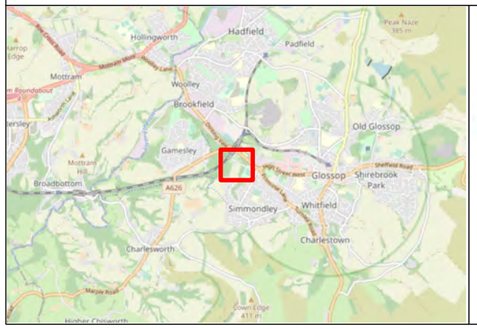
Revision No. A

0 15 30 45 60 75 Meters

Scale 1:1,750 @A3

31 October 2022

NGR: 401924E 394224N



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Bat Activity Transect 06.10.22

Dinting Vale

Wain Homes Ltd

Legend

Site boundary

Total expected counts

- 1-2
- 2-3
- 3-7
- 7-14
- 14-30
- 30-60

Common pipistrelle, *Pipistrellus pipistrellus*

Notes:

Drawn by: RD

Checked by: KC

Office: Southampton

Figure No. 7

Revision No. A

0 15 30 45 60 75 Meters

Scale 1:1,750 @A3

31 October 2022

NGR: 401924E 394224N

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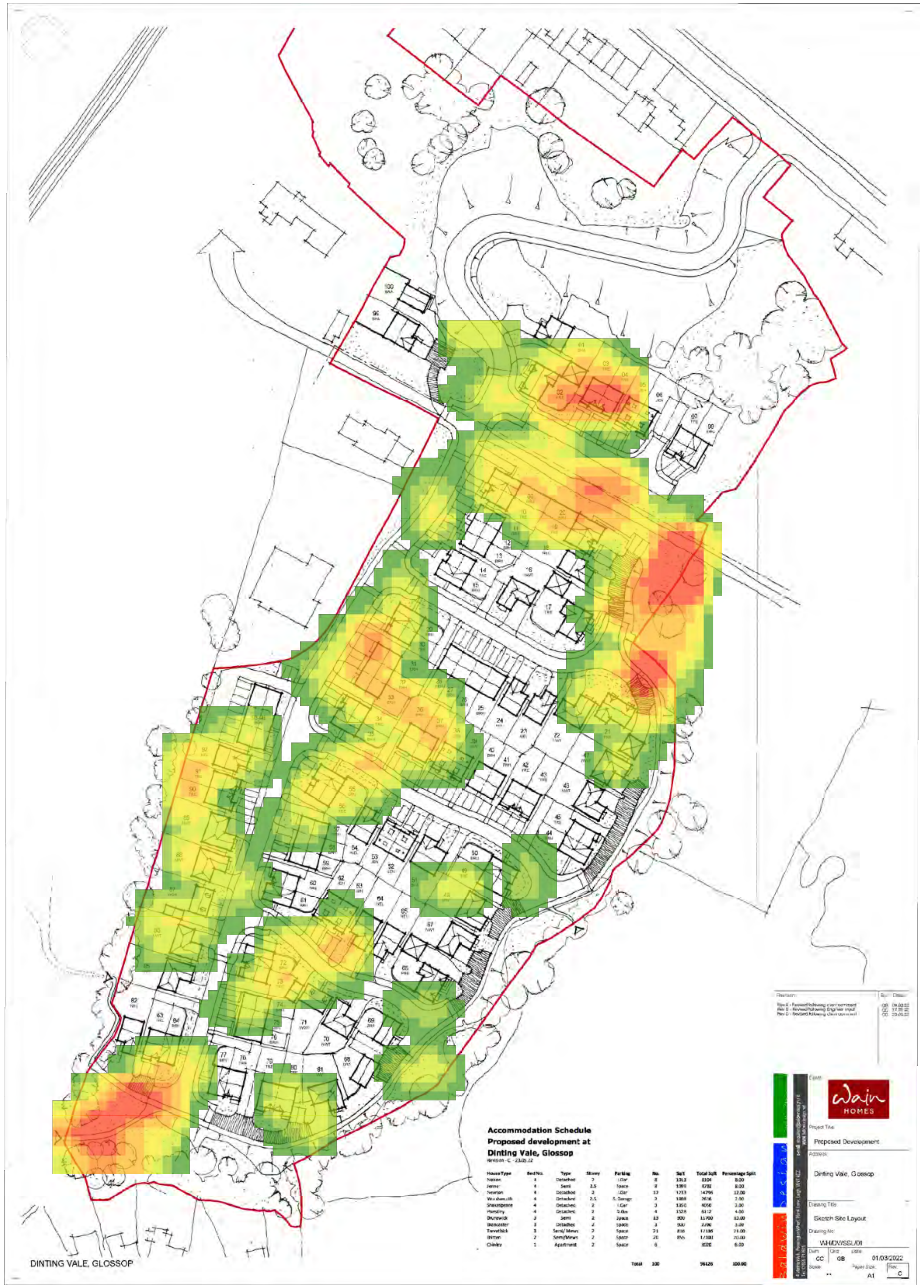

Combined Bat Activity Heat Map

Dinting Vale Glossop

Wain Homes Ltd

N

Legend

Expected bat calls

- 1 - 5
- 5 - 10
- 10 - 20
- 20 - 50
- 50 - 100
- 100 - 150
- 150 - 600

Notes:

Drawn by: GF	Figure No. 8
Checked by: KC	Revision No. A
Office: Southampton	03 November 2022

0 25 50 75 Meters

Scale 1:1,500 @A3

British National Grid

NGR: 401924E 394198N

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APPENDIX A – REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of Homes England ("Wain Homes Ltd") for the proposed uses stated in the report by [Tetra Tech Limited] ("Tetra Tech"). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B – LEGISLATION AND RELEVANT PLANNING POLICY

A revised NPPF was issued on 20th July 2021 (Ministry of Housing Communities and Local Government, 2021) and currently supplements government Circular *06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System* (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 174 of the NPPF also states that:

'*Planning policies and decisions should contribute to and enhance the natural environment by:*

a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)*

b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland*

c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate*

d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*

e) *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*

f) *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

The conservation and enhancement of wildlife is also specifically reference re: development within the National Parks or the Broads.

Paragraph 180 then goes on to confirm that:

When determining planning applications, local planning authorities should apply the following principles:

a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*

d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

Regarding EcIA's and HRA's – any sites identified, or required, as compensatory measures for adverse effects on any Natura 2000/habitats site should also be given the same level as protection as the pSPA's and cSAC's themselves. In addition, when an application is being determined, Paragraph 182 clarifies that:

"*The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.*"

Paragraph 185 is also relevant as;

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:…

c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

HIGH PEAK LOCAL PLAN (ADOPTED APRIL 2016)

The High Peak Local Plan (High Peak Borough Council, 2016) is the key planning document for Glossopdale setting out a long-term strategy for the spatial development of Derby to 2031 and provides a framework for promoting and managing development.

The Policies Map can be viewed by following the link below: Interactive local plan map - High Peak Borough Council.

The site is allocated for housing under the High Peak Local Plan. It is also designated as a Grade 3 site for its biodiversity interest (Adderley Place Rush Pasture). The High Peak Local Plan document can be viewed by following the link: 951570.pdf (highpeak.gov.uk).

The following policies relate to biodiversity and nature conservation:

- Policy S 1 - Sustainable Development Principles;
- Policy EQ 5 Biodiversity;
- Policy EQ 8 Green Infrastructure; and
- Policy EQ 9 Trees, Woodland, and Hedgerows.

Policy S 1 Sustainable Development Principles

The Borough Council will expect that all new development makes a positive contribution towards the sustainability of communities and to protecting, and where possible enhancing, the environment; and mitigating the process of climate change, within the Plan Area.

This will be achieved by:

- Meeting most development needs within or adjacent to existing communities;
- Making effective use of land (including the remediation of contaminated land and reuse of brownfield land), buildings and existing infrastructure;
- Making efficient use of land by ensuring that the density of proposals is appropriate (and informed by the surrounding built environment);
- Taking account of the distinct Peak District character, landscape, townscape, roles and setting of different areas and settlements in the High Peak;
- **Protecting and enhancing the natural and historic environment of the High Peak and its surrounding areas including the Peak District National Park;**

- Providing for a mix of types and tenures of quality homes to meet the needs and aspirations of existing and future residents in sustainable locations;
- Supporting the local economy and businesses by providing for a range of economic development that provide employment opportunities suitable for local people in sustainable locations, and generally encourage larger developments to incorporate mixed uses where possible so as to reduce the need to travel;
- Minimising the need to travel by promoting development in locations where there is access to a broad range of jobs, services and facilities which are accessible by foot, cycle, or public transport with minimal reliance on the private car;
- **Minimising the risk of damage to areas of importance for nature conservation and/or landscape value, both directly and indirectly and ensuring that there is suitable mitigation for a net gain in biodiversity and the creation of ecological networks;**
- Minimising carbon or energy impacts associated with development according to the principles of the 'energy hierarchy' by minimising the need for energy through the appropriate siting, orientation and design of new buildings; the use of renewable energy sources and ensuring building construction and other forms of development address the challenge of climate change by meeting high environmental standards with particular regard to energy efficiency, water efficiency, use of sustainable materials, encouraging waste reduction, recycling, including where appropriate the local- or on site-sourcing of building materials;
- Further mitigating the impacts of climate change by seeking reductions in greenhouse gas emissions across the High Peak; in particular through supporting the delivery of renewable and low-carbon forms of energy (either via stand-alone installations, or installations integrated within new/existing developments), where this is considered acceptable against all other Development Plan Policies as a whole;
- Requiring that all new development addresses flood risk mitigation/adaptation, ensuring for example that sustainable drainage systems are considered at the outset within proposals (and to comply with legislative requirements);
- Seeking to secure high quality, locally distinctive and inclusive design in all development that can be accessed and used by everyone including disabled people;
- Seeking to secure developments provide a high standard of amenity for all existing and future occupants of land and buildings, ensuring communities have a healthy, safe, and attractive living and working environment and the risks from potential hazards are minimised; and
- Maintaining and where possible enhancing accessibility to a good range of services and facilities, and ensuring existing infrastructure and services have the capacity to support development when required.

In order to enable required development to take place, in some cases mitigation measures will be needed to address the impacts of new development on existing infrastructure and on nearby sensitive areas. In all cases development should not conflict with the relevant policies in this Local Plan. Development should be designed to be sustainable; seek to enhance the environment; have regard to both its direct and indirect cumulative impact over the longer term; and should provide any necessary mitigating or compensatory measures to address harmful implications.

  - New development should make effective use of land and buildings and be located in sustainable locations in line with the Settlement Hierarchy in Policy S2.

Policy S 5 Glossopdale Sub-area Strategy

The Council will seek to promote the sustainable growth of Glossopdale whilst promoting and maintaining the distinct identity of its settlements, provide an increasing range of employment opportunities, promote the growth of a sustainable tourist economy, and meet the housing needs of the local community. This will be achieved by:

1. Promoting and maintaining the distinct identity of the settlements which make up Glossopdale by:

- Protecting and enhancing sites designated for environmental value, including Manor Park, Howard Park and Bankswood Park, public open spaces, playing fields and outdoor sports facilities, local and European wildlife sites, recreation areas and allotments;
- Protecting the designated Green Belt Maintaining a strategic gap between Glossop and Hadfield as identified on the Policies Map;
- Identifying Local Green Spaces at George Street, Glossop and Padfield as identified on the Policies Map;
- Supporting the vitality and viability of Glossop Town Centre through the delivery of the Glossop Design and Place Making Strategy, the refurbishment and enhancement of Glossop Market Hall and Town Hall and traffic management measures for George Street;
- Supporting the vitality and viability of Hadfield Town Centre;
- Redeveloping the Woods Mill area for a mixed-use regeneration scheme;
- Protecting and enhancing the historic environment;
- Ensuring the redevelopment of industrial legacy sites reflects their historic character;
- Ensuring that development protects and/or enhances landscape character and the setting of the Peak District National Park

2. Providing for the housing needs of the community by planning for sustainable housing and mixed-use developments by:

- Allocating a range of suitable, deliverable housing sites sufficient to meet the requirements of the Glossopdale sub-area, including the delivery of appropriate levels of affordable housing;
- Supporting the development of new housing on sustainable sites within the built-up area boundary;
- Supporting the development of new housing within the mixed redevelopment of industrial legacy sites;
- Ensuring that residential development avoids adverse impact on the integrity of the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area, South Pennine Moors Special Area of Conservation (SAC) and Dark Peak Site of Special Scientific Interest (SSSI).

3. Encouraging the growth of local employment opportunities and supporting the diversification and growth of local business by:

- Allocating suitable, deliverable sites for industrial and business use sufficient to meet the economic needs of the area;
- Supporting the retention and provision of employment within mixed redevelopment of the industrial legacy sites;
- Encouraging the growth of tourism;
- Safeguarding existing employment sites for industrial and business use unless specifically allocated for an alternative use.

4. Supporting enhancements to key community services and infrastructure and connectivity to meet the needs of the local population and support growth by:

- Working with partner organisations to enable improvements to school capacity in the area. In particular the following sites will be safeguarded for educational purposes as identified on the Policies Map : Replacement Primary School and Nursery – Rhodes Street, Padfield New County Primary School and Nursery – Roughfields, Hadfield Replacement Primary School and Nursery for Glossop All Saints – Church Street, Old Glossop Replacement Primary School – Church Fold/Long Lane, Charlesworth Working with partner organisations and developers to address congestion along the A57 and A628, to improve transport links to surrounding areas and to enable transport improvements and mitigation measures identified the High Peak Transport Study and in the Trans-Pennine Feasibility Study (subject

to further consideration). Transport Assessments in support of developments in the Glossopdale area should be scoped with Highways England and the highways authority in order to determine whether the assessment should consider impacts on A57/A628 junction and to identify mitigation measures as appropriate.

- Supporting improvements to the range and quality of town centre retail and services in Glossop town centre. Protecting land for a new railway station at Gamesley as identified on the Policies Map. This includes land for access and parking.
- Supporting the provision of indoor and outdoor sports facilities having regard to the Councils Sport and Recreation Strategies

Policy EQ 5

Biodiversity The biodiversity and geological resources of the Plan Area and its surroundings will be conserved and where possible enhanced by ensuring that development proposals will not result in significant harm to biodiversity or geodiversity interests.

This will be achieved by:

- Conserving and enhancing sites of international, European, and national importance. On these sites the Council will not permit any development proposal that has an adverse effect on the integrity of a European site (or wildlife site given the same protection as European sites under the NPPF) either alone or in combination with other plans or projects;
- Conserving and enhancing any Sites of Special Scientific Interest. On these sites the Council will not permit any development proposal which would directly or indirectly (either individually or in combination with other developments) have an adverse effect on a Site of Special Scientific Interest;
- Conserving and enhancing regionally and locally designated sites. On these sites the Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests, unless it can be demonstrated that:
  - there is no appropriate alternative site available; and
  - all statutory and regulatory requirements relating to any such proposal have been satisfied; and
- appropriate conservation and mitigation measures are provided, such mitigation measures should ensure as a minimum no net loss and wherever possible net gain for biodiversity;

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 2017 (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.

Where development will result in damage to suitable habitat where the species is known to be present, or risk harming or significantly disturbing bats, an EPSML is likely to be required from NE 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 Act) 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 NE) 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 bat are listed under Section 41 of the NERC Act 2006; soprano pipistrelle, brown long-eared bat, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat, barbastelle *Barbastella barbastellus*, Bechstein’s bat *Myotis bechsteinii* and noctule.

APPENDIX C – DETAILED RESULTS OF THE AUTOMATED STATIC MONITORING

Table 11: Northern Automated Bat Detector Survey Results from June 2022

Date	Species	Number of passes
30th June 2022	Common pipistrelle	22
1st July 2022	Common pipistrelle	10
2nd July 2022	Common pipistrelle	2
	Myotis sp.	1
3rd July 2022	Common pipistrelle	20
	Brown long eared	1
4th July 2022	Common pipistrelle	5

Table 12: Northern Automated Bat Detector Survey Results from July 2022

Date	Species	Number of passes
22nd July 2022	Common pipistrelle	72
	Soprano pipistrelle	1
	Brown long eared	2
23rd July 2022	Common pipistrelle	154
	Brown long eared	5
	Myotis sp.	1
24th July 2022	Common pipistrelle	350
	Brown long eared	18
	Myotis sp.	5
	Soprano pipistrelle	1
25th July 2022	Common pipistrelle	190
	Brown long eared	14
	Myotis sp.	3
26th July 2022	Common pipistrelle	61
	Brown long eared	1
	Myotis sp.	1

Table 13: Northern Automated Bat Detector Survey Results from August 2022

Date	Species	Number of passes
14th August 2022	Common pipistrelle	42
	Myotis Sp.	12
	Noctule	9
	Brown Long eared	2
	Soprano pipistrelle	3
15th August 2022	Common pipistrelle	20
	Myotis Sp.	2
16th August 2022	Common pipistrelle	18
	Myotis Sp.	2
17th August 2022	Common pipistrelle	48
	Myotis Sp.	5
	Brown Long eared	1
18th August 2022	Common pipistrelle	39
	Myotis Sp.	2
	Brown long eared	1

Table 14: Northern Automated Bat Detector Survey Results from September 2022

Date	Species	Number of passes
21st September 2022	No bats recorded	No bats recorded
22nd September 2022	Noctule	2
23rd September 2022	No bats recorded	No bats recorded
24th September 2022	No bats recorded	No bats recorded
25th September 2022	No bats recorded	No bats recorded

Table 15: Northern Automated Bat Detector Survey Results from October 2022

Date	Species	Number of passes
6th October 2022	Common pipistrelle	24
7th October 2022	Common pipistrelle	6
	Myotis Sp.	2
8th October 2022	Common pipistrelle	2
	Myotis Sp.	1
9th October 2022	Common pipistrelle	31
	Myotis Sp.	1
10th October 2022	Common pipistrelle	1

Table 16: Southern Automated Bat Detector Survey Results from June 2022

Date	Species	Number of passes
30th June 2022	No bats recorded	No bats recorded
1st July 2022	Common pipistrelle	260
	Myotis	11
2nd July 2022	Common pipistrelle	48
	Myotis Sp.	5
3rd July 2022	Common pipistrelle	79
	Myotis Sp.	4
4th July 2022	Common pipistrelle	47
	Myotis Sp.	1

Table 17: Southern Automated Bat Detector Survey Results from July 2022

Date	Species	Number of passes
22nd July 2022	Common pipistrelle	1
23rd July 2022	Common pipistrelle	5
	Soprano pipistrelle	3
	Myotis Sp.	2
	Noctule	1
24th July 2022	Common pipistrelle	1
	Brown long eared	8
25th July 2022	Common pipistrelle	5
	Brown long eared	2
26th July 2022	Common pipistrelle	7

Table 18: Southern Automated Bat Detector Survey Results from August 2022

Date	Species	Number of passes
14th August 2022	Common pipistrelle	8
	Myotis Sp.	3
	Brown long eared	2
15th August 2022	Common pipistrelle	5
	Myotis Sp.	2
	Brown long eared	3
16th August 2022	Common pipistrelle	3
	Myotis Sp.	1
17th August 2022	Common pipistrelle	3
	Myotis Sp.	4
	Noctule	1
18th August 2022	Common pipistrelle	9
	Myotis Sp.	2
	Brown long eared	1
	Noctule	1

Table 19: Southern Automated Bat Detector Survey Results from September 2022

Date	Species	Number of passes
21st September 2022	Common pipistrelle	182
	Myotis Sp.	17
	Soprano pipistrelle	6
22nd September 2022	Common pipistrelle	35
	Myotis Sp.	1
	Brown long eared	1
23rd September 2022	Common pipistrelle	25
	Myotis Sp.	7
	Brown long eared	1
	Soprano pipistrelle	1
24th September 2022	Common pipistrelle	23
	Brown long eared	4
	Myotis Sp.	3
	Soprano pipistrelle	1
25th September 2022	Common pipistrelle	17
	Brown long eared	2
	Myotis Sp.	1
	Soprano pipistrelle	5

Table 20: Southern Automated Bat Detector Survey Results from October 2022

Date	Species	Number of passes
6th October 2022	No bats recorded	0
7th July 2022	Common pipistrelle	1
8th July 2022	Common pipistrelle	3
	Myotis Sp.	1
9th July 2022	Common pipistrelle	1
	Myotis Sp.	1
10th July 2022	Myotis Sp.	3

APPENDIX D- PROPOSED DEVELOPMENT PLANS: CLPD 006