

Appendix 7.3

Ascerta

Landscape, Arboricultural & Ecological Solutions
for the Built Environment

Bat Nocturnal Surveys and Static Detector Deployment

Land at Stakehill,
Slattocks, M24 2SH

Ref: P.1172.19

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P.1172.19

Bat Nocturnal Surveys and Static Detector Deployment

Of

Land at Stakehill, Slattocks, M24 2SH

For

Redrow Homes Ltd, Valerie Drake, Robert Allen & John Thomas Allen, June Greenwood, Willie Green & Mark Greenwood, David Andrew Tetlow and Amanda Jane Tetlow

6 December 2022

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EXECUTIVE SUMMARY

Ascerta has been instructed by Redrow Homes Ltd, Valerie Drake, Robert Allen & John Thomas Allen, June Greenwood, Willie Green & Mark Greenwood, David Andrew Tetlow and Amanda Jane Tetlow to carry out nocturnal bat activity surveys, deploy static bat detectors and a bat emergence survey on building B2 within the site Land at Stakehill, Slattocks, M24 2SH (hereafter referred to as the site).

Our client seeks planning consent to redevelop the site for residential dwellings, areas of public open space and associated access roads. To accommodate these proposals, buildings B2, B3 and Garages (TN15) within the western section of the site, the former All in One Garden Centre, are due to be demolished.

The site was visited on 22nd, 29th and 30th May 2019 by Neil Everett and Tosha Allen when a Preliminary Ecological Appraisal, which includes an assessment of the potential for protected species to be using the site or surroundings, was carried out in accordance with the *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit* (JNCC, 2010). The report was prepared following methods detailed in the CIEEM 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018) and 'Guidelines for Ecological Report Writing' (2017). This report presents the results of the survey including evaluation of habitats on site and the potential for protected species to be using the site. The report includes recommendations for further actions where applicable in order to satisfy current wildlife legislation and to achieve our client's objectives.

During the site visits carried out in May 2019, the site was assessed to provide **high** bat commuting and foraging habitat and building B1 with the site was assessed to provide **low** bat roost potential.

An updated Preliminary Ecological Appraisal of the site was carried out on 17th March 2022 by Liz Kenyon and Lizzie Atkinson. A Preliminary Bat Roost Assessment of the buildings (B2, B3 and Garages) within the western section of the site was carried out in March 2022 by Lizzie Atkinson.

Following the updated site walkover and building inspection carried out in March 2022, the bat roost potential of the buildings with the site were assessed as follows:

- **Negligible** – B3 and Garages (TN15)
- **Low** – B1 and B2

The site was assessed to still provide **high** bat commuting and foraging habitat. Building B1 sits within habitats due to be retained within current proposals, therefore no further survey effort was required. As building B3 and the Garages (TN15) were assessed to provide **negligible** bat roost potential, no further survey effort for bats is required.

Two nocturnal activity surveys for bats have been carried out monthly between April 2022 and October 2022. Three static bat detectors have also been deployed throughout the site for five consecutive nights per month between April 2022 and October 2022.

A bat emergence survey was carried out on building B2 within the site on 27th July 2022 by Lizzie Atkinson, Liz Kenyon and Fran Stallman.

Bat surveys are conducted in accordance with the *Bat Surveys for Professional Ecologists - Good Practice Guidelines*, published 2016 (the Guidelines) and *Interim Guidance Note*, May 2022. Strict adherence to these is not necessary, but where practice deviates from them, clear reasons and rationale are required.

The survey area comprises an area of agricultural land and associated buildings (the majority of buildings lie outside the red line boundary). The habitats on site comprise semi-improved, improved and wet grassland, hardstanding, semi-natural broadleaved woodland, scattered trees, introduced shrubs, waterbodies, watercourses, hedgerows of varying species richness, scrub and tall ruderal vegetation of mixed species diversity. A garden centre with two buildings (B2 and B3) and garages (TN15) lies within the western section of the site and the buildings are surrounded by hardstanding with introduced shrubs and scattered trees.

On 27th July 2022, **moderate** bat activity was recorded during the survey on building B2 with only common pipistrelle and noctule bat identified within the site during the survey. No bats were recorded emerging from building B2 during the survey and therefore it is considered that bats are not using building B2 as a roost at the time of the survey.

Low levels of bat activity were recorded throughout the bat activity surveys and static deployment with common pipistrelle, soprano pipistrelle, noctule, brown long-eared bat and serotine bat species found using the site for commuting and foraging. Activity was predominately concentrated to the north and east of the site, where habitats are to be retained and enhanced. The site is to be further enhanced with the addition of a community parkland and wildlife area to the south and an additional wildlife area to the north and these areas are connected by the habitats where bat activity was highest. Due to the low levels of bat activity recorded throughout the surveys, and areas of key commuting and foraging habitat to be retained and enhanced, it is considered that there will be no adverse impact on bats provided the recommendations below are followed:

If the recommendations below are followed these species will not be adversely affected by the proposals.

- If works have not begun by April 2024, a further daytime assessment and/or nocturnal survey and the deployment of static bat detectors may be required to assess how bats are using the site;
- If demolition works on buildings B2, B3 and garages (TN15) have not begun by July 2023, a further daytime assessment and/or nocturnal survey may be required to confirm the buildings are not being used as a roost;
- Street lighting and lighting within public area to be kept to a minimum to meet the Bat Conservation Trust lighting guidelines, so as not to cause a detrimental effect to light sensitive species; and
- Habitat enhancement with the installation of a mixture of bird nest features and bat box attached to new buildings with the number of boxes to be determined upon finalised formal plans.

1.0 Introduction

Ascerta has been instructed by Redrow Homes Ltd, Valerie Drake, Robert Allen & John Thomas Allen, June Greenwood, Willie Green & Mark Greenwood, David Andrew Tetlow and Amanda Jane Tetlow to carry out nocturnal bat activity surveys, deploy static bat detectors and a bat emergence survey on building B2 within the site Land at Stakehill, Slattocks, M24 2SH (hereafter referred to as the site). The OS grid reference is SD 89167 09404 and the extent of the site is displayed in photograph 1.1 below.



Photograph 1.1; Site Extent

The site was visited on 22nd, 29th and 30th May 2019 by Neil Everett and Tosha Allen when a Preliminary Ecological Appraisal, which includes an assessment of the potential for protected species to be using the site or surroundings, was carried out in accordance with the *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit* (JNCC, 2010). The report was prepared following methods detailed in the CIEEM 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018) and 'Guidelines for Ecological Report Writing' (2017). This report presents the results of the survey including evaluation of habitats on site and the potential for protected species to be using the site. The report includes recommendations for further actions where applicable in order to satisfy current wildlife legislation and to achieve our client's objectives.

During the site visits carried out in May 2019, the site was assessed to provide **high** bat commuting and foraging habitat and building B1 with the site was assessed to provide **low** bat roost potential.

An updated Preliminary Ecological Appraisal of the site was carried out on 17th March 2022 by Liz Kenyon and Lizzie Atkinson. A Preliminary Bat Roost Assessment of the buildings (B2, B3 and Garages) within the western section of the site was carried out in March 2022 by Lizzie Atkinson.

Following the updated site walkover and building inspection carried out in March 2022, the bat roost potential of the buildings with the site were assessed as follows:

- **Negligible** – B3 and Garages (TN15)
- **Low** – B1 and B2

The site was assessed to still provide **high** bat commuting and foraging habitat. Building B1 sits within habitats due to be retained within current proposals, therefore no further survey effort was required. As building B3 and the Garages (TN15) were assessed to provide **negligible** bat roost potential, no further survey effort for bats is required.

Two nocturnal activity surveys for bats have carried out monthly between April 2022 and October 2022. The surveys were carried out by Lizzie Atkinson, Liz Kenyon, Fran Stallman, Evie Berry, Niall Doherty and Fay Martin Evans.

A bat emergence survey was carried out on building B2 within the site on 27th July 2022 by Lizzie Atkinson, Liz Kenyon and Fran Stallman.

Three static detectors were deployed between April and October 2022 throughout the site, as shown on drawing P.1172.19.08 Static detector locations, appendix 1

The bat survey was undertaken following the guidelines set out by the Bat Conservation Trust (Collins 3rd Edition 2016) and Interim Guidance Note, May 2022. The report was prepared following methods detailed in the CIEEM '*Guidelines for Ecological Impact Assessment in the UK and Ireland*' (2018) and '*Guidelines for Ecological Report Writing*' (2017). This report presents the results of the nocturnal bat survey. The report includes recommendations for further actions where applicable in order to satisfy current wildlife legislation and to achieve our client's objectives. Relevant legislation is detailed within Appendix 2

The survey area comprises an area of agricultural land and associated buildings (the majority of buildings lie outside the red line boundary). The habitats on site comprise semi-improved, improved and wet grassland, hardstanding, semi-natural broadleaved woodland, scattered trees, introduced shrubs, waterbodies, watercourses, hedgerows of varying species richness, scrub and tall ruderal vegetation of mixed species diversity. A garden centre with two buildings (B1 and B2) and garages (TN15) lies within the western section of the site and the buildings are surrounded by hardstanding with introduced shrubs and scattered trees.

2.0 Objectives

Our client's objectives are to ascertain the potential ecological constraints and opportunities of the site to inform potential future development of residential dwellings.

Our objectives are as follows:

- Carry out nocturnal activity surveys for bats and the deployment of static bat detectors;
- Carry out a bat emergence survey on the building B2;
- Provide recommendations for mitigation measures where current legislation requires;
- Provide recommendations that seek to enhance the ecological value of the site; and
- Provide recommendations to assist our clients in achieving their objectives whilst satisfying current wildlife legislation.

3.0 Survey Methods

The Preliminary Ecological Assessment and Preliminary Bat Roost Assessment of the buildings involved the collection and review of data from a desk study and field survey, along with assessment of the value of the habitats following CIEEM guidelines.

3.1 Desk Study

The local biological records centre was consulted for records of bats within 2km of the site in 2019. A review of the designated sites and habitats within 2km of the site has been undertaken using the Multi-Agency Geographic Information for the Countryside (MAGIC) and the Natural England websites. Only findings relating to bats are detailed in this report.

3.2 Bat Activity Survey Methods

During the bat activity surveys, the surveyors walked a planned transect route with stop points around the full area of the site. Surveyors also recorded general bat activity whilst on the site during the survey.

The transect route and stop points locations are marked on drawings: P.1172.19.13 Bat Activity Survey 07.06.22, P.1172.19.14 Bat Activity Survey 21.06.22, P.1172.19.15 Bat Activity Survey 05.07.22, P.1172.19.16 Bat Activity Survey 19.07.22, P.1172.09.17 Bat Emergence Survey 27.07.22, P.1172.19.18 Bat Activity Survey 02.08.22, P.1172.19.19 Bat Activity Survey 16.08.22, P.1172.19.20 Dusk Bat Activity Survey 13.09.22, P.1172.19.21 Dawn Bat Activity Survey 13.09.22, P.1172.19.22 Bat Activity Survey 29.09.22, P.1172.19.23 Bat Activity Survey 11.10.22, P.1172.19.24 Bat Activity Survey 25.10.22.

During the survey, the following details were noted:

- Weather and temperature;
- Time bat detected / seen;
- Frequency at which the bat was detected;
- Location of bats and if they were foraging and commuting;
- Direction of flight; and
- Number and species of bats present

The weather conditions during the surveys are detailed within table 3.1 below.

Table 3.1: Weather conditions

Date	Temperature (°C)	Cloud cover (°/8)	Wind (Beaufort Scale)	Precipitation
12 th April 2022 (start of the survey)	12	8/8	F0	Dry
12 th April 2022 (end of the survey)	12	8/8	F1	Dry
26 th April 2022 (start of the survey)	9	4/8	F0	Dry
26 th April 2022 (end of the survey)	7	6/8	F1	Dry
10 th May 2022 (start of the survey)	16	6/8	F2	Dry
10 th May 2022 (end of the survey)	14	6/8	F1	Dry
24 th May 2022 (start of the survey)	12	0/8	F0	Dry
24 th May 2022 (start of the survey)	11	0/8	F1	Dry
7 th June 2022 (start of the survey)	17	7/8	F1	Dry
7 th June 2022 (end of the survey)	16	8/8	F0	Light rain
21 st June 2022 (start of the survey)	18	0/8	F0	Dry
21 st June 2022 (end of the survey)	18	0/8	F0	Dry
5 th July 2022 (start of the survey)	15	2/8	F0	Dry
5 th July 2022 (end of the survey)	15	4/8	F0	Dry
19 th July 2022 (start of the survey)	24	2/8	F0	Dry
19 th July 2022 (end of the survey)	24	6/8	F0	Dry
2 nd August 2022 (start of the survey)	22	8/8	F2	Dry
2 nd August 2022 (end of the survey)	20	8/8	F1	Dry
16 th August 2022 (start of the survey)	17	8/8	F1	Dry
16 th August 2022 (end of the survey)	16	8/8	F1	Light rain
13 th September 2022 (start of the survey) Dusk survey	16	4/8	F0	Dry
13 th September 2022 (end of the survey) Dusk survey	13	4/8	F0	Dry

13 th September 2022 (start of the survey) Dawn survey	9	3/8	F0	Dry
13 th September 2022 (end of the survey) Dawn survey	9	3/8	F0	Dry
27 th September 2022 (start of the survey)	11	4/8	F0	Dry
27 th September 2022 (end of the survey)	10	2/8	F0	Dry
11 th October 2022 (start of the survey)	10	6/8	F1	Dry
11 th October 2022 (end of the survey)	10	6/8	F0	Dry
25 th October 2022 (start of the survey)	10	8/8	F1	Dry
25 th October 2022 (end of the survey)	9	8/8	F2	Dry

3.3 Bat Emergence Survey Methods

Following the findings of the daytime inspection, a dusk emergence survey on building B2 was carried out on 27th July 2022. The dusk emergence survey commenced 15 minutes before sunset and continued until 1 hour and 30 minutes after sunset.

During the survey, the surveyors were strategically positioned around the building, focusing on areas where potential access points had been identified during the building inspection to observe any bats leaving or entering a roost. Surveyors also recorded general bat activity whilst on the site during the survey. Surveyor locations are marked on drawings *P.1172.19.17* in *Appendix 1*. The time, the location and where possible the direction of flight, species and behaviour of bats (i.e. commuting, foraging, social calling) are detailed within the report.

The weather conditions during the dusk emergence survey are detailed within table 3.1 below.

Table 3.2: Weather conditions

Date	Temperature (°C)	Cloud cover (°/8)	Wind (Beaufort Scale)	Precipitation
27 th July 2022 (start of the survey)	17	8/8	F0	Dry
27 th July 2022 (end of the survey)	17	8/8	F0	Dry

3.4 Static Detector Survey

Three Anabat Express bat detectors with directional microphones were deployed throughout the site on five consecutive nights in suitable weather conditions for bats between April 2022 and October 2022 (the location is marked on Drawing *P.1172.19.08 Static detector location* (Appendix 1).

Detectors were set to begin recording 30 minutes prior to sunset and until 30 minutes after sunrise. Detectors were set to use an automatic trigger with threshold and sensitivity for the detection of bat calls.

Data Analysis Procedure

For analysis, a 'bat pass' was defined as two or more bat calls in a continuous sequence, up to 10 seconds duration. Sound files longer than 10 seconds were split using Kaleidoscope Pro software. Calls were analysed using Kaleidoscope Pro to verify species.

Bat passes were recorded throughout the deployment of the static detectors, however due to the low number of bats recorded during the hours of unit operation, the total number of bat passes per hour (Bat PPH) have not been included for each bat species within the analysis. Instead, only the peak bat activity in each five-day recording period has been recorded as Bat PPH.

Bat Passes Per hour (Bat PPH) was calculated using the following formula:

$$\text{Bat PPH} = \frac{\text{Total bat passes recorded at location}}{\text{Total number of hours unit operation}}$$

Temperature, wind speed/direction and cloud cover were recorded at the beginning and end of the survey, along with any significant weather changes during the survey (e.g. heavy showers).

3.5 Limitations

The surveys were undertaken during the appropriate time of year and within suitable weather conditions.

The absence of biological data records does not necessarily mean the absence of species. This has been taken into account within the conclusions of the report. During the dawn survey on the 13th September 2022 the temperature as recorded at 9°C, although this is below the optimal temperature for the dusk survey the previous evening was over 10°C at sunset.

Due to the presence of cattle, access to change batteries and memory cards for the static detector within the north of the site was occasionally restricted. The transect route was occasionally altered due to the presence of cattle, however the majority of fields could still be assessed from neighbouring fields. These access restrictions have been taken into account within the conclusions of this report.

4.0 Survey Results

4.1 Desk Study

Records for common pipistrelle, daubenton's bat, noctule bat, soprano pipistrelle, pipistrelle species and unknown bat species were returned within 2km of the site.

One European Protected Species Licence (EPSL) application within 2km of the site since 2016 was identified using Magic Maps;

- 2016-20262-EPS-MIT for the destruction of a resting place for common pipistrelle (758m north east).

4.2 Bat Emergence Survey

During the bat emergence survey on building B2, the timing of the survey is detailed below in table 4.1.

Table 4.1: Survey Timings

Date	Dusk/Dawn Time	Survey Start Time	Survey End Time
27 th July 2022	21:14	20:59	22:44

During the emergence survey on building B2 undertaken on 27th July 2022, bat activity commenced at 21:23 (9 minutes after sunset) at surveyor Liz Kenyon (LK), located on the north-eastern corner of B2, with a commuting common pipistrelle that was heard not seen. Surveyor LK recorded a further three commuting common pipistrelle and one noctule commuting and intermittent common pipistrelle foraging between 21:26 and 22:36 with the majority of activity concentrated north of the building.

Surveyor Fran Stallman (FS), located on the north-western corner of the building, recorded intermittent common pipistrelle foraging and commuting activity between 21:25 (11 minutes after sunset) and 22:43 (1 hour and 29 minutes after sunset) and the majority of activity was heard not seen.

Surveyor Lizzie Atkinson (LA), located south of the building, recorded a common pipistrelle pass at 22:00 (46 minutes after sunset) which was heard not seen. LA recorded a further two common pipistrelle commuting south-east and brief common pipistrelle foraging, that was heard not seen, between 22:02 and 22:04. Activity ceased at the surveyor location at 22:13 (59 minutes after sunset) with a common pipistrelle commuting north.

No bats were recorded emerging from building B2. Overall, a moderate level of bat activity was recorded with the majority of activity occurring north of the building. All bats recorded by surveyors during the emergence survey were common pipistrelle and noctule. No other species of bat was recorded.

Table 4.2: Survey equipment used by the surveyors during the dusk emergence survey on 27th July 2022.

Date	Surveyors	Equipment
27 th July 2022	Liz Kenyon, Lizzie Atkinson and Fran Stallman	Echo Meter Touch (EMT) connected to iPad mini, EMT connected to Samsung A12 mobile phone and Peersonic RPA3 detector

4.3 Bat Activity Survey

During the nocturnal activity surveys, the timings of the survey are detailed below in table 4.2.

Table 4.3: Survey Timings

Date	Dusk/Dawn Time	Survey Start Time	Survey End Time
12 th April 2022	20:04	20:00	22:04
26 th April 2022	20:29	20:29	22:35
10 th May 2022	20:54	20:44	22:54
24 th May 2022	21:17	21:09	23:14
7 th June 2022	21:34	21:34	23:40
21 st June 2022	21:41	21:41	23:41
5 th July 2022	21:39	21:35	23:39
19 th July 2022	21:26	21:25	23:26
2 nd August 2022	21:04	21:04	23:04
16 th August 2022	20:35	20:35	22:35
13 th September 2022	19:30	19:30	21:30
13 th September 2022	06:36	04:30	06:42
27 th September 2022	18:56	18:55	20:56
11 th October 2022	18:22	18:22	20:22
25 th October 2022	17:51	17:51	19:51

On 12th April 2022, bat activity commenced at 20:29 (25 minutes after sunset) with a brief common pipistrelle pass in field F4 that was heard but not seen. Constant common pipistrelle foraging was recorded between 20:32 and 20:48 within the semi-natural broadleaved woodland north of field F4.

Intermittent common pipistrelle was recorded 20:40 and 20:47 adjacent to the species poor hedgerow, scrub and stream (D1) within F19.

A noctule was heard but not seen commuting (HNS) at 21:54 in field F15 where activity ceased (1 hour and 50 minutes after sunset).

The transect route and flight lines are indicated on drawing P.1172.19.; Bat Activity Survey 12.04.22, Appendix 1

On 26th April 2022 the transect route was walked in reverse, bat activity commenced at 20:51 (32 minutes after sunset) with a HNS common pipistrelle pass to the north western boundary of F20.

At 21:25 a commuting noctule and foraging common pipistrelle were recorded adjacent to the eastern boundary of F2. A foraging HNS pipistrelle was recorded at 21:34 to the north of F4.

Bat activity ceased at 21:43 (1 hour and 21 minutes after sunset) with a foraging common pipistrelle to the northern boundary of F4.

The transect route and flight lines are indicated on drawing P.1172.19.10 Bat Activity Survey 26.04.22, Appendix 1

On 10th May 2022, bat activity commenced at 21:17 (23 minutes after sunset) with a HNS foraging common pipistrelle in F4. Common pipistrelle foraging, that was HNS, was also recorded in F3 adjacent to the hedgerow along the western boundary.

At 21:39, a commuting common pipistrelle, that was HNS, was recorded in F15. Intermittent HNS common pipistrelle foraging was recorded whilst walking the transect within F15.

Common pipistrelle HNS foraging was recorded in fields F21 and F20. Constant HNS common pipistrelle foraging activity was recorded between 22:26 and 22:28 within F19.

Activity ceased at 22:28 (1 hour and 32 minutes after sunset) with a common pipistrelle foraging adjacent to the species poor hedgerow, scrub and stream (D1) within F19.

The transect route and flight lines are indicated on drawing P.1172.19.11 Bat Activity Survey 10.05.22, Appendix 1

On the 24th May, the transect route was walked in reverse and activity commenced at 22:10 with a foraging common pipistrelle (53 minutes after sunset) adjacent to the wooded area to the northern boundary of F3. A foraging common pipistrelle was also recorded along the northern hedge line of F4, the bat was HNS, a second HNS foraging common pipistrelle was recorded to the eastern boundary of F5/F6.

At the eastern boundary of F13 that lies adjacent to the A627 constant common pipistrelle foraging activity was recorded.

A single HNS noctule pass was recorded at F15 and activity ceased for the survey at 22:56 (1 hour 39 minutes after sunset) with a foraging common pipistrelle adjacent to the southern hedge line of F23.

The transect route and flight lines are indicated on drawing P.1172.19.12 Bat Activity Survey 24.05.22, Appendix 1.

On 7th June, activity commenced at 21:44 (10 minutes after sunset) with a common pipistrelle commuting south to north in field F6. Brief common pipistrelle foraging that HNS was recorded in fields F5 and F20. Three common pipistrelles were recorded foraging along hedge of the eastern boundary of F2 between 21:58 and 22:00. Activity ceased at 22:52 (1 hour and 18 minutes after sunset) in field F21 within a brief common pipistrelle pass that was HNS.

The transect route and flight lines are indicated on drawing P.1172.19.13 Bat Activity Survey 07.06.22, Appendix 1.

On 21st June 2022, the transect was walked in reverse and activity commenced at 22:22 (40 minutes after sunset) with two common pipistrelles foraging along hedge of the eastern boundary of F2. Two foraging common pipistrelles were recorded foraging within the western corner of field F18. Three common pipistrelles were recorded foraging along the northern boundary of field F2. Brief common pipistrelle foraging was recorded on the boundary of field F2 and F4. Activity ceased at 23:38 (1 hour and 57 minutes after sunset) in field F23 with common pipistrelle foraging that was HNS.

The transect route and flight lines are indicated on drawing P.1172.19.14 Bat Activity Survey 21.06.22, Appendix 1.

On 5th July 2022, activity commenced at 22:24 (49 minutes after sunset) with a common pipistrelle foraging along the footpath that lines F11 and F18. Three common pipistrelles were recorded constantly foraging along the hedgerows that line the track north of F11. A common pipistrelle was then recorded commuting east to west along the northern boundary of F11.

A commuting noctule was recorded in F11 and brief nathusius' pipistrelle foraging was also recorded, the activity was HNS. Activity ceased at 22:55 (1 hour and 20 minutes after sunset) with a common pipistrelle pass that was HNS.

The transect route and flight lines are indicated on drawing P.1172.19.15 Bat Activity Survey 05.07.22, Appendix 1.

On 19th July 2022, very low bat activity was recorded with two foraging common pipistrelle adjacent to the eastern boundaries of F6 and F7 at 22:09 (43 minutes after sunset). A single common pipistrelle was HNS not seen at F15. No further bat activity was recorded during the survey.

The transect route and flight lines are indicated on drawing P.1172.19.16 Bat Activity Survey 19.07.22, Appendix 1.

On 2nd August 2022, very low bat activity was recorded with four common pipistrelle identified foraging along the watercourse that lines the southern boundary of F19 at 21:26 (22 minutes after sunset). A commuting common pipistrelle, that was HNS, was recorded within field F7.

The transect routes and flight lines are indicated on drawing P.1172.19.18 Bat Activity Survey 02.08.22, Appendix 1.

On 16th August 2022, activity commenced at 21:33 (58 minutes after sunset) with a HNS foraging common pipistrelle in F13. A commuting HNS noctule was also recorded within F13. A common pipistrelle was identified foraging along the track east of fields F13, F7 and F6. Constant HNS common pipistrelle foraging was recorded in F6 and F5. No other activity was recorded during the survey.

The transect routes and flight lines are indicated on drawing P.1172.19.19 Bat Activity Survey 16.08.22, Appendix 1.

On 13th September 2022, activity commenced at 20:06 (36 minutes after sunset) in field F17 with a common pipistrelle commuting east. Common pipistrelle foraging activity was recorded in fields F18 and F13. Constant common pipistrelle foraging activity, and social calling, was recorded adjacent to the woodland that lies east of F8, F7 and F6. The majority of the activity was HNS. Constant HNS common pipistrelle foraging and social calling was recorded in fields F4, F3, along the track east of F2, F11 and F16. Activity ceased at 21:28 (1 hour and 58 minutes after sunset) with a HNS common pipistrelle foraging along the track south of field F23.

The transect routes and flight lines are indicated on drawing P.1172.19.20 Dusk Bat Activity Survey 13.09.22, Appendix 1.

On 13th September 2022, very low activity was recorded during the dawn survey. A single common pipistrelle was recorded commuting along the eastern boundary of field F6 and F7 at 05:20 (1 hour and 16 minutes prior to sunrise. The bat was HNS and no other activity was recorded throughout the survey.

The transect routes and flight lines are indicated on drawing P.1172.19.21 Dawn Bat Activity Survey 13.09.22, Appendix 1.

On 27th September 2022, activity commenced at 19:22 (26 minutes after sunset) with a commuting HNS noctule on the track east of fields F6 and F7. HNS common pipistrelle commuting activity was in F15. No other activity was recorded during the survey.

The transect routes and flight lines are indicated on drawing P.1172.19.22 Bat Activity Survey 29.09.22, Appendix 1.

On 11th October 2022, activity commenced at 18:42 (20 minutes after sunset) with a common pipistrelle foraging along the hedge that lines the southern boundary of F17. Common pipistrelle foraging and commuting activity was recorded in fields F11 and F12. HNS common pipistrelle foraging was also recorded in F13, along the track to the west of F6, F5 and F9. A common pipistrelle was identified foraging along the hedge line east of F16.

The transect routes and flight lines are indicated on drawing P.1172.19.23 Bat Activity Survey 11.10.22, Appendix 1.

On 25th October 2022, very low activity was recorded during the survey. Activity commenced at 18:21 (30 minutes after sunset) with a common pipistrelle foraging along the hedge line south of F17. A common pipistrelle was HNS foraging with F19. No other activity was recorded throughout the survey.

The transect routes and flight lines are indicated on drawing P.1172.19.24 Bat Activity Survey 25.10.22, Appendix 1

Table 4.4 Survey equipment used by the surveyors during nocturnal bat survey transects on the respective dates between April and October 2022.

Date	Surveyors	Equipment
12 th April 2022	Liz Kenyon and Lizzie Atkinson	EMT and iPad mini
26 th April 2022	Liz Kenyon and Lizzie Atkinson	EMT and Samsung A12 mobile phone
10 th May 2022	Liz Kenyon and Lizzie Atkinson	EMT and iPad and echo meter touch 2
24 th May 2022	Liz Kenyon and Lizzie Atkinson	EMT and iPad mini
7 th June 2022	Liz Kenyon and Lizzie Atkinson	EMT and iPad mini
21 st June 2022	Lizzie Atkinson and Fay Martin Evans	EMT connected to Samsung A12 mobile phone
5 th July 2022	Lizzie Atkinson and Fran Stallman	EMT connected to Samsung A12 mobile phone
19 th July 2022	Liz Kenyon and Fran Stallman	EMT and iPad and echo meter touch 2
2 nd August 2022	Lizzie Atkinson and Fran Stallman	EMT connected to Samsung A12 mobile phone
16 th August 2022	Lizzie Atkinson and Fran Stallman	EMT connected to Samsung A12 mobile phone
13 th September 2022	Lizzie Atkinson and Niall Doherty	EMT connected to Samsung A12 mobile phone
13 th September 2022	Liz Kenyon and Evie Berry	EMT and iPad mini
27 th September 2022	Liz Kenyon and Evie Berry	EMT and iPad mini
11 th October 2022	Lizzie Atkinson and Evie Berry	EMT connected to Samsung A12 mobile phone
25 th October 2022	Lizzie Atkinson and Evie Berry	EMT connected to Samsung A12 mobile phone

4.4 Other Wildlife

On 12th April, Lapwing were noted within fields F3, F4, F15, F10, F12, F18 and F21. A brown hare was identified running east in F18. Rabbits were identified in fields F2, F3 and F19.

On 26th April, Lapwing were noted within F3, F10 and F11. A single brown hare was noted in F10 and F13 and fox prints were noted to the eastern boundaries on F6 and F7. Rabbits were also recorded at the potential badger sett entrance within F10.

On 10th May 2022, Lapwing were noted within fields F3, F4, F15, F10 and F12. A lapwing nest was identified within F12. Brown hare were identified within fields F6 and F8. Rabbits were also noted at the potential badger sett entrance within F10 as well as within fields F6, F8 and F3. Two goldfish were identified within a water trough within field F7.

On 24th May 2022, Lapwing were noted within fields F3, F17, F18 and F19. Rabbits were noted within F10, F19, F20 and F21 and seven Canada geese were recorded in F7.

On 7th June 2022, Lapwing were noted within fields F2 and F3. Lapwing egg shell was also identified within field F17. Brown hare were noted in field F12, kestrel in F17, five Canadian geese in F3, hedgehog in F2 and rabbits were identified within fields F2 and F3.

On 5th July 2022, a barn owl was recorded hunting within fields F19 and F20.

On 19th July 2022, a brown hare was noted in fields F13 and F14. Rabbits were identified within fields F15, F20 and F21 and a domestic cat was recorded in F23.

On 2nd August 2022, rabbits were identified within fields F15 and F22. Brown hare were recorded within F16 and F20. A heron was recorded commuting north in F19, and five Canadian geese were recorded within the pond at F19.

On 16th August 2022, rabbits were identified with F23, and a common frog was recorded within F17. A flock of approximately 50 Canadian geese were recorded within field F19.

On 13th September 2022, a common frog was identified within F22.

On 11th October 2022, a brown hare was recorded in field F19, and a tawny owl was heard calling in field F5.

4.5 Static Detector Data Analysis

Common pipistrelle: Common pipistrelle were recorded at all static detector locations. Passes peaked on 23rd July 2022 over the period of the operation of the static detector 1 that night a total of 77 passes at the static detector in this location. Reduced activity levels at all locations in September, this may be due to the breakup of summer roosts and bats travelling away from the site to find winter roosts. Therefore, it is considered this bat species bats will not be adversely impacted following the proposed development.

Soprano pipistrelle: Very low soprano pipistrelle bat activity was recorded within the site. Bat passes for soprano pipistrelle included a total of three single passes recorded across July, August and September. The site is considered to provide low habitat suitability for soprano pipistrelle.

Brown long-eared: There were very low levels of activity recorded by brown long-eared bats. Bat pass activity peaked on 23rd July 2022 at location of static 1 with 7 passes recorded. It is therefore considered that due to the low activity levels records, brown long-eared bats will not be adversely impacted following the proposed development.

Noctule: very low noctule activity was recorded which peaked in July with 4 passes and two passes in August and September at the static detector locations. In addition, noctule commute at height, and the majority of potential commuting features (hedgerows and trees) will be retained within current illustrative proposals. Therefore, noctule are considered to not be adversely impacted by the proposed development.

Serotine: Serotine were recorded in July with a peak of just 5 passes. The site is considered to provide low commuting and foraging habitat for serotine bats and the were found to not be using the site as key foraging habitat during the static surveys. It is considered that they will not be adversely impacted following the proposed development.

5.0 Evaluation and Recommendations

Based on the results of the Preliminary Ecological Appraisal, that habitats within the site were evaluated as having **high** potential for foraging and commuting bats. The nocturnal surveys and deployment of static bat detectors confirmed that the site is used predominately by common pipistrelle. Very low – low levels of soprano pipistrelle, noctule, brown long-eared bat and serotine foraging and commuting activity within the site was recorded and it considered that these species will not be adversely impacted by the proposed development due to the low activity levels recorded.

Activity was predominately concentrated to the north and east of the site adjacent to offsite areas of woodland the border the site and provide connectivity to the surrounding landscape. Current illustrative proposals indicate the habitats adjacent to the offsite woodland to the north and east are to be retained and enhanced. The site is to be further enhanced with a community parkland and wildlife area to the south and an additional wildlife area to the north and these areas are connected by the habitats where bat activity was highest.

The main area of development lies within the centre of the site, where bat activity was predominately low. To reduce the impacts to bats and to maintain the sites value for foraging and commuting bats, any street lighting and lighting within public area should be kept to a minimum to meet the Bat Conservation Trust lighting guidelines, so as not to cause a detrimental effect to light sensitive species. It is further recommended that key commuting and foraging habitats, such as hedgerows are retained and enhanced in these areas to provide connectivity through the site.

Based on the result of the daytime surveys carried out in May 2019 and March 2022, buildings B1 and B2 were assessed to provide **low** bat roost potential. Building B3 and the garages (TN15) were assessed to provide **negligible** bat roost potential. Building B1 is to be retained within current proposals, therefore no further survey effort was required. Following the nocturnal emergence survey at building B2, it was confirmed that bats are not being used as a roost at the time of the survey.

As such, works to buildings B2, B3 and garages (TN15) within the site can proceed without being detrimental to maintenance of the local bat population at a favourable conservation status (i.e. the proposals meet the third test of the 'three test assessment' as outlined in the Habitats Regulations). Features on the building still have a potential for supporting bat roosts and bats are known to move roosts often. If works have not occurred by have not begun by July 2023, a further daytime assessment or nocturnal survey may be required to confirm bats are not using the buildings to roost.

6.0 Enhancements

In order to meet requirements for biodiversity protection and enhancement outlined within the NPPF, it is recommended that ecological enhancements are included. These could include:

1. Provision of bird boxes (25mm or 32mm entrance hole boxes, house sparrow terraces, swift boxes, house martin cups, barn owl boxes), attached to retained trees and new buildings as appropriate on site;
2. Provision of bat boxes (e.g. Schewgler 2F type) attached to a retained tree on site and provision of bat boxes (e.g. Beaumaris woodstone box, Vivara pro products ibstock bat bricks) attached to or incorporated within new buildings. The amount will be determined following completion of the nocturnal transect surveys; and
3. Suitable landscaping incorporating species that provide a food or shelter resource to wildlife to include hawthorn, hazel, holly, blackthorn, field maple, dog rose and honeysuckle as hedgerow species and oak, alder, field maple, silver birch, crab apple, rowan and bird cherry as tree species together with implementing a relaxed mowing regime and establishing wildflowers in these areas.

7.0 Conclusions

The site was subject to fourteen nocturnal activity surveys for bats and the deployment of three static bat detectors in April, May, June, July, August, September and October 2022. Following the daytime assessment, nocturnal activity surveys and static bat detector deployment, it is considered that the proposals will have a limited impact on the local ecology as a low number of bats were recorded using the site for foraging and commuting. Activity was concentrated predominately to the east and north of the site, where habitats are to be retained and enhanced. The site is to be further enhanced with the addition of a community parkland and wildlife area to the south and an additional wildlife area to the north and these areas are connected by the habitats where bat activity was highest.

Building B2 was subject to a nocturnal emergence survey for bats following the daytime assessment which classified the building as having **low** bat roost potential. During the nocturnal emergence survey carried out on B2, no bats were identified emerging from the building and a moderate level of bat activity was identified within the site with activity concentrated to the north of the building. Therefore, it is considered that bats are not using building B2 as a roost at the time of the survey.

It is considered that there would be very limited impact on the local ecology as a result of the proposals, providing the recommendations below are followed:

- If works have not begun by April 2024, a further daytime assessment and/or nocturnal survey and the deployment of static bat detectors may be required to assess how bats are using the site;
- If demolition works on buildings B2, B3 and garages (TN15) have not begun by July 2023, a further daytime assessment and/or nocturnal survey may be required to confirm the buildings are not being used as a roost;
- Street lighting and lighting within public area to be kept to a minimum to meet the Bat Conservation Trust lighting guidelines so as not to cause a detrimental effect to light sensitive species; and
- Habitat enhancement with the installation of a mixture of bird nest features and bat box attached to new buildings with the number of boxes to be determined upon finalised formal plans

8.0 References

Bat Conservation Trust (2018) *Bats and lighting in the UK- bats and the built environment series 08/18* Bat Conservation Trust, London.

CIEEM (2017) *Guidelines on Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2021) *Bat Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats. Beta version*.

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn) and Interim Guidance Note, May 2022. The Bat Conservation Trust, London.

Joint Nature Conservation Committee (JNCC). *The UK Biodiversity Action Plan (UK BAP)* [online] Available at: www.jncc.defra.gov.uk/page-5155

Maddock, A., (ed) (2011) *UK Biodiversity Action Plan; Priority Habitat Descriptions*, JNCC.

Ministry of Housing, Communities and Local Government (2021), *National Planning Policy Framework (NPPF)*

Multi Agency Geographic Information for the Countryside (MAGIC) [online]

Appendix 1



- Site boundary
- Bat Activity Surveys
- ★ Static detectors

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CLIENT: Redrow Homes		
PROJECT: Manchester Road, Slattocks		
DRAWING TITLE: Static detector locations		
SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.08
DATE: 14/04/2022	CHKD BY: LA	REV: -



- Site boundary
- Transect route
- Bat Flight Lines 12.04.22

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DRAWING TITLE:
Bat Activity Survey 12.04.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.09
DATE: 14/04/2022	CHKD BY: LK	REV: -



- Site boundary
- Transect route
- Bat flight lines 26.04.22
- HNS bat locations

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DRAWING TITLE:
Bat Activity Survey 26.04.22

SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.10
DATE: 27/04/2022	CHKD BY: LA	REV: -



- Site boundary
- Transect route
- Bat flight lines 10.05.22
- HNS bat locations 10.05.22

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DRAWING TITLE:

Bat Activity Survey 10.05.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.11
DATE: 11/05/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 24.05.22
- HNS bat locations 24.05.22

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DRAWING TITLE:
Bat Activity Survey 24.05.22

SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.12
DATE: 25/05/2022	CHKD BY: LA	REV: -



- Transect route
- Bat flight lines 07.06.22
- HNS bat locations 07.06.22

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DRAWING TITLE: Bat Activity Survey 07.06.22		
SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.13
DATE: 24/06/2022	CHKD BY: LA	REV: -



- Transect route
- Bat flight lines 21.06.22
- HNS bat locations 21.06.22

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DRAWING TITLE: Bat Activity Survey 21.06.22		
SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.14
DATE: 24/06/2022	CHKD BY: LA	REV: -



Key

- Transect route
- Bat flight lines 05.07.22
- HNS bat locations 05.07.22

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DRAWING TITLE:
Bat Activity Survey 05.07.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.15
DATE: 04/07/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 19.07.22
- HNS bat locations 19.07.22

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DRAWING TITLE:
Bat Activity Survey 19.07.22

SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.16
DATE: 20/07/2022	CHKD BY: LA	REV: -



Key

- Building
- Surveyor locations
- Bat flight lines

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DRAWING TITLE:
Dusk Emergence Survey 27.07.22

SCALE: NTS@A3	DRAWN BY: LK	DRAWING No: P.1172.19.17
DATE: 20/07/2022	CHKD BY: LA	REV: -



- Transect route
- Bat flight lines 02.08.22
- HNS bat locations 02.08.22

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DRAWING TITLE:
Bat Activity Survey 02.08.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.18
DATE: 25/11/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 16.08.22
- HNS bat locations 16.08.22

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DRAWING TITLE:
Bat Activity Survey 16.08.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.19
DATE: 25/11/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 13.09.22
- HNS bat locations 13.09.22

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DRAWING TITLE:
Dusk Bat Activity Survey

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.20
DATE: 25/11/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 13.09.22
- HNS bat locations 13.09.22

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DRAWING TITLE:

Dawn Bat Activity Survey

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.21
DATE: 25/11/2022	CHKD BY: LK	REV: -



- Transect route
- HNS bat locations 27.09.22

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DRAWING TITLE:
Bat Activity Survey 27.09.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.22
DATE: 25/11/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 11.10.22
- HNS bat locations 11.10.22

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DRAWING TITLE:
Bat Activity Survey 11.10.22

SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.23
DATE: 25/11/2022	CHKD BY: LK	REV: -



- Transect route
- Bat flight lines 25.10.22
- HNS bat locations 25.10.22

DO NOT SCALE.
ALL COORDINATES RELATED TO LOCAL GRID.
LOCATED TO NG BY BEST FIT TO DETAIL.
EXTRACTED FROM OS DIGITAL DATA.

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CLIENT: Redrow Homes		
PROJECT: Manchester Road, Slattocks		
DRAWING TITLE: Bat Activity Survey 25		
SCALE: NTS@A3	DRAWN BY: LA	DRAWING No: P.1172.19.24
DATE: 25/11/2022	CHKD BY: LK	REV: -

Appendix 2

Appendix 2: Relevant Legislation

European Legislation

The following Directives have been adopted by the European Union and provide protection for fauna and flora species of European importance and the habitats which support them:

- Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive);
- Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive).

UK Legislation

The Habitats Directive has been transposed into national legislation through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (The Habitats Regulations). This provides for the designation and protection of 'European Sites' (SPAs, SACs and Ramsar Sites, including proposed or potential European Sites) and the protection of 'European Protected Species'.

The key UK legislation relating to nature conservation is the Wildlife and Countryside Act 1981 (as amended) (W&C Act). This Act is supplemented, *inter alia*, by provision in the Countryside and Rights of Way (CROW) Act 2000, and the Natural Environment and Rural Communities Act 2006 (NERC Act). Additional species and habitat specific UK legislation includes the Protection of Badgers Act 1992 and the Hedgerow Regulations 1997.

The Environment Act sets out how the UK will maintain environmental standards following leaving of the EU. The Bill builds on the vision of the 25 Year Environment Plan, with the ambition from the government to leave the environment in a better state than it was when inherited.

The Defra Biodiversity Metric is being implemented to work alongside the Environment Act. This tool calculates potential biodiversity impacts as a result of development and identifies mitigation and compensation requirements to ensure no net loss of biodiversity. In addition, it identifies measures that can be implemented in order to meet Biodiversity gain as a result of development. Defra released a beta version of the biodiversity metric in July 2019. This metric is likely to be the default metric used by councils.

The National Planning Policy Framework (NPPF) 2021 has been published to provide further planning guidance. Wildlife, biodiversity and ecological networks are referred to in Section 15 '*Conserving and enhancing the natural environment*'. The NPPF states that the planning system should contribute to and enhance the natural and local environment by: recognising the wider benefits of ecosystem services, minimising impacts on biodiversity and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures. Further guidance is provided within Government Circular 06/05: *Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System*.

Species and Habitats of Principal Importance

Species and Habitats of Principal Importance are listed under section 41 of the NERC Act and are a material consideration in planning decisions. Planners require relevant, up to date information from ecological surveys in order to assess the effects of a proposed development on biodiversity as Councils have a statutory obligation under section 40 of the NERC Act to consider biodiversity conservation in the determination of planning applications.

Background information about the lists of priority habitats and species (Species and Habitats of Principal Importance) can be found within the UK Biodiversity Action Plan (UK BAP). Although this has been succeeded by the '*UK Post-2010 Biodiversity Framework*', many of UK BAP tools are still relevant. BAPs identify habitats and species of nature conservation priority on a UK (UK BAP) and Local (LBAP) scale. Most BAP priority habitats and species have Habitat Action Plans (HAP) and Species Action Plans (SAP) and there

are also "grouped action plans" for groups of related species with similar conservation requirements. The LBAP relating to this Site is the Greater Manchester Biodiversity Action Plan.

Bats

In England, all bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended). Several species of bat are also highlighted as Priority Species under the UK Biodiversity Action Plan and within the Local BAP.

Under the current legislation as summarised on pages 8 and 9 of the Bat Surveys for Professional Ecologists Good Practice Guidelines – 3rd Edition (2016) it is a criminal offence to:

“To kill, capture, injure or take a wild bat;

- *To damage or destroy a place used by a bat for breeding or resting. All offences of this nature are identified within the Habitats Regulations. This offence is unique in that it can be committed accidentally. No element of intentional, reckless or deliberate action needs to be evidenced;*
- *To disturb bats anywhere (roosts, flight lines or foraging areas) if levels of disturbance can be shown to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate or to affect significantly local distribution or abundance;*
- *To intentionally or recklessly disturb a bat, whilst it is occupying a place of shelter or protection;*
- *To intentionally or recklessly obstruct access to any place used by a bat for shelter or protection; and*
- *To be in possession or control of a bat alive or dead (or any part of a bat or anything derived from a bat, although bat droppings are generally considered to be acceptable), or to transport a bat, to sell or exchange a bat or to offer to sell or exchange a bat taken from the wild.”*

Breeding Birds

Breeding Birds are protected under the Wildlife and Countryside Act which make it an offence to:

- *intentionally kill, injure or take any wild bird or take, damage or destroy the nest of any wild bird whilst it is in use or being built;*
- *intentionally take or destroy the egg of any wild bird;*
- *have in one's possession or control any wild bird, dead or alive, or any part of a wild bird (including eggs), which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.*

Local Policy

The site lies within Rochdale and is covered by Rochdale Metropolitan Borough Council Unitary Development Plan (Adopted June 2006) and the Rochdale Core Strategy (Adopted October 2016 and updated February 2017). The policies of relevance here are policies NE3, NE4, NE5, NE8 and NE9 and policy G7 respectively and these policies have been taken into account when preparing this report.

Appendix 3

lapping No
Fill XL

Brown hair F₁
F₂

For plants to be for

F_{10}, F_6, F_8 have $F_6 + F_8$

Landscape | Trees | Ecology

Lophing $\pi_9, \pi_2, \pi_7, \beta$
 rabbit $\pi_1, \pi_6, \pi_4, \pi_0$

7 Geese F7

[illegible]

[illegible]

[illegible]

Here 4 - F13/F14 1 - F15 2 + F.
 Rabbit 5 - F15 F20, F21
 for F23

[illegible]

Rabbits #23 Canada Geese (approx 50) in flock
common fog #17

[illegible]

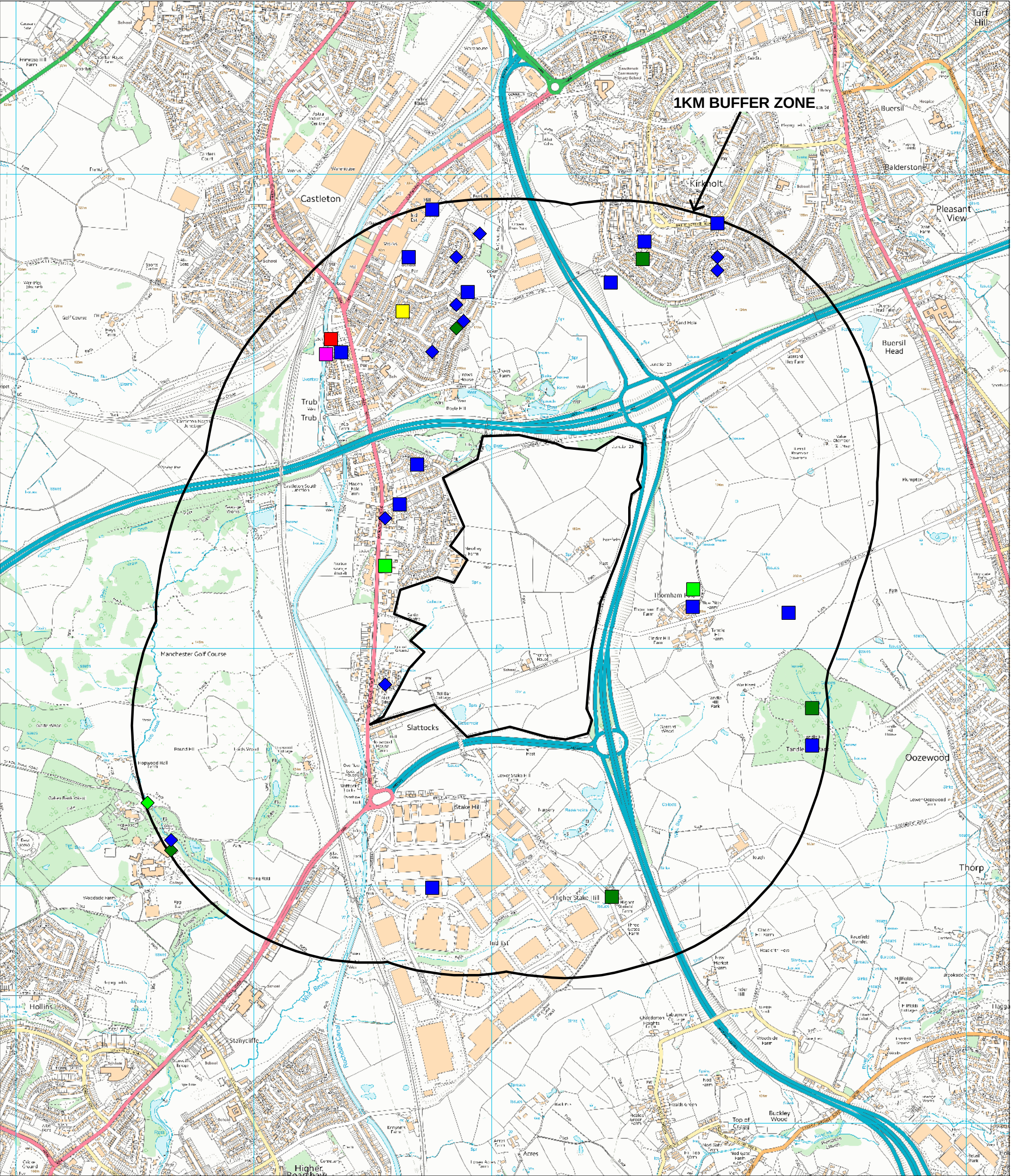
[illegible]

Common pg 72

fig - Brown here plums all

[illegible]

Appendix 4



- KEY**
- BAT ROOSTS**
- ◆ BAT SP
 - ◆ COMMON PIPISTRELLE
 - ◆ PIPISTRELLE SP
- BATS OTHER SIGNS**
- BAT SP
 - COMMON PIPISTRELLE
 - DAUBENTON'S BAT
 - NOCTULE BAT
 - PIPISTRELLE SP
 - SOPRANO PIPISTRELLE

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SD 8936 0942
MANCHESTER ROAD - MAP 4

SCALE 1:15,000

BAT DATA COURTESY OF SOUTH LANCS BAT GROUP

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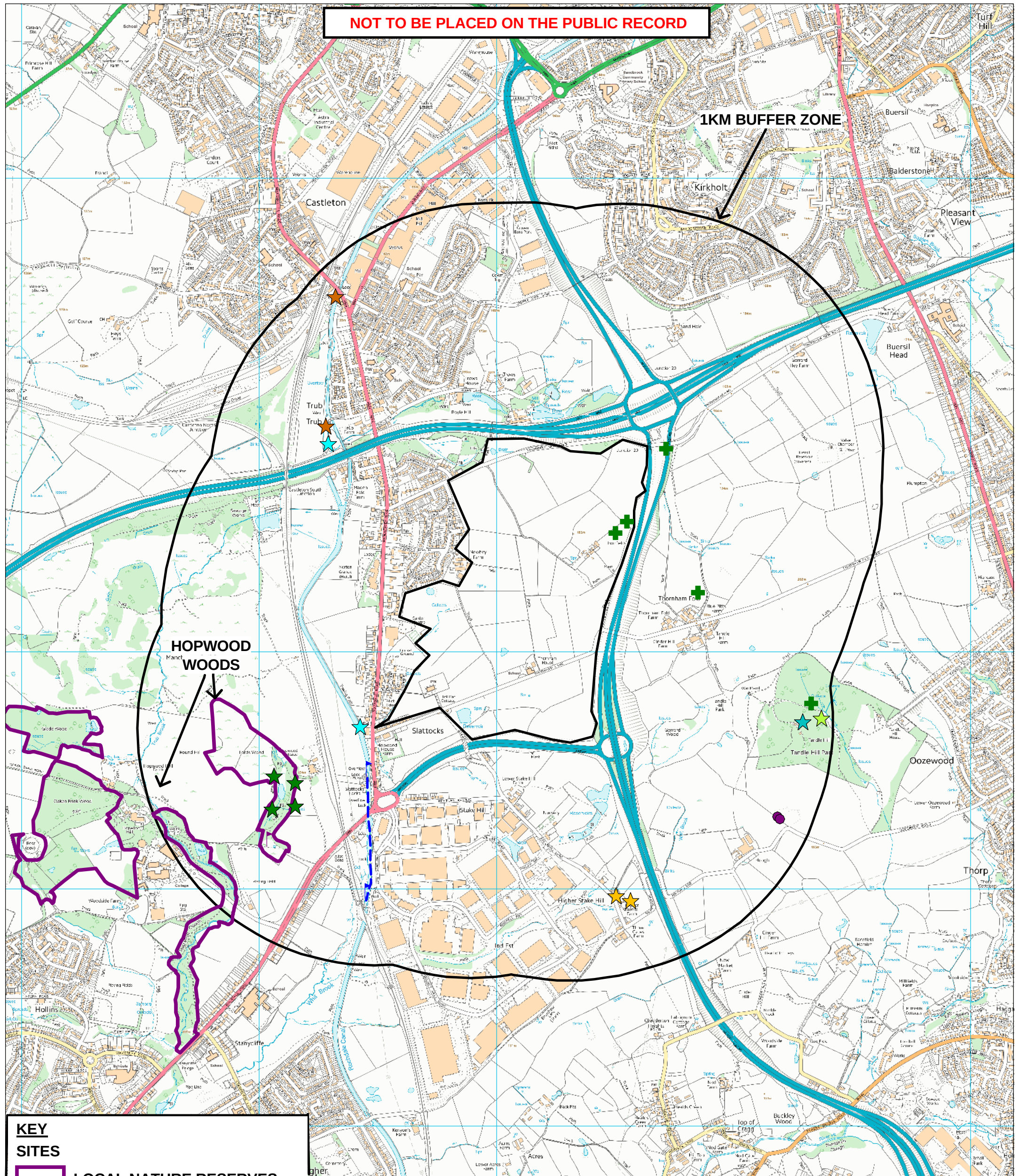


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KEY

SITES

LOCAL NATURE RESERVES

PROTECTED SPECIES

- GREAT CRESTED NEWT
- GREAT CRESTED NEWT ABSENCE
- EUROPEAN WATER VOLE
- EUROPEAN WATER VOLE SIGNS
- BROWN HARE
- BARN OWL
- FLOATING WATER-PLANTAIN
- GRASS SNAKE
- KINGFISHER
- SLOW-WORM
- WHITE-CLAWED CRAYFISH

GREATER MANCHESTER ECOLOGY UNIT
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MANCHESTER ROAD - MAP 2

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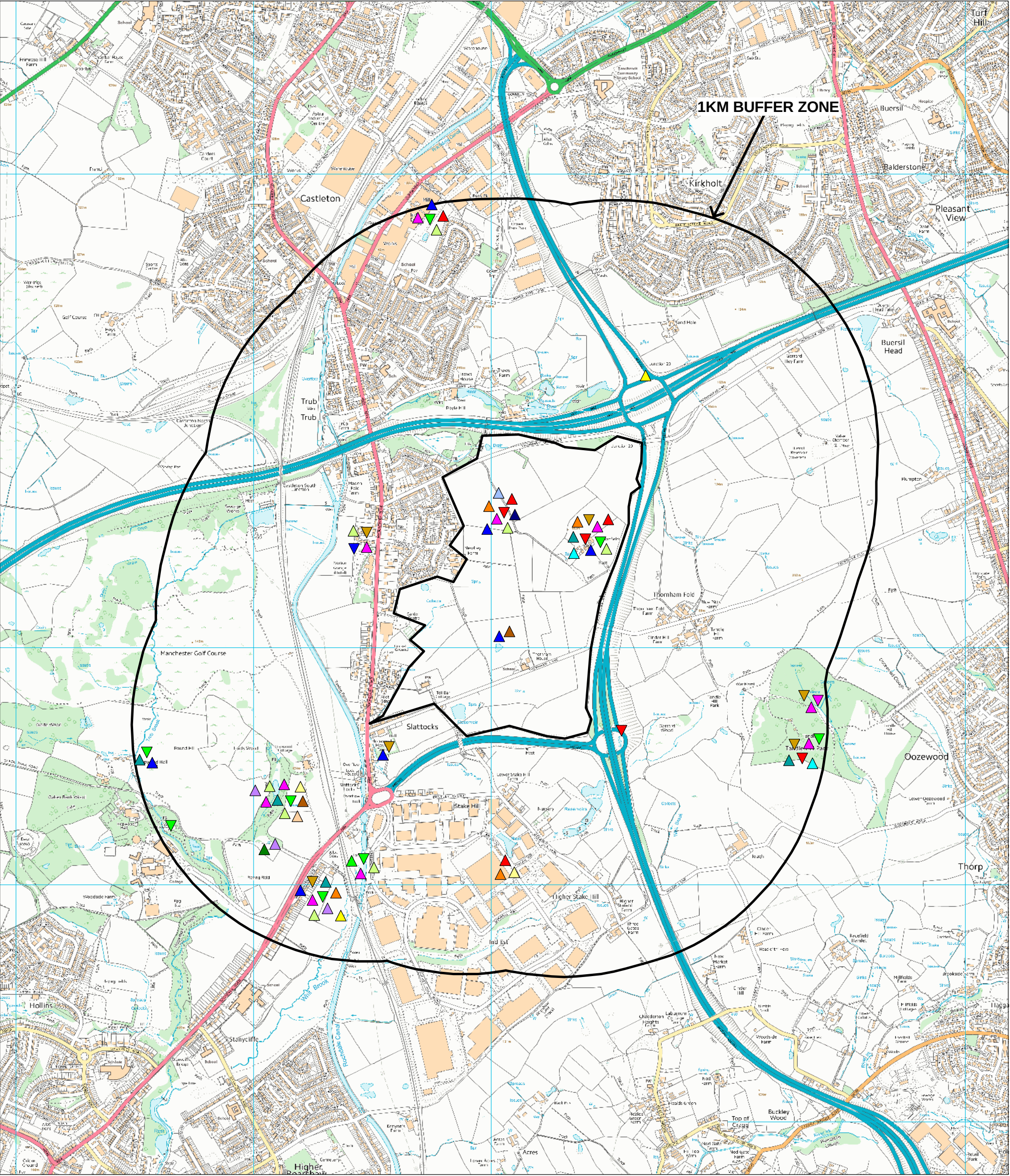
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KEY
SECTION 41 SPECIES

- | | |
|---------------------|----------------|
| ▲ BULLFINCH | ▲ LINNET |
| ▲ COMMON TOAD | ▲ MUD SNAIL |
| ▲ CUCKOO | ▲ REDPOLL |
| ▲ CURLEW | ▲ REED BUNTING |
| ▲ DUNNOCK | ▲ S41 MOTH |
| ▲ GR.HOPPER WARBLER | ▲ SKYLARK |
| ▲ GREY PARTRIDGE | ▲ SMALL HEATH |
| ▲ HEDGEHOG | ▲ SONG THRUSH |
| ▲ HERRING GULL | ▲ STARLING |
| ▲ HOUSE SPARROW | ▲ WILLOW TIT |
| ▲ LAPWING | |

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MANCHESTER ROAD - MAP 5

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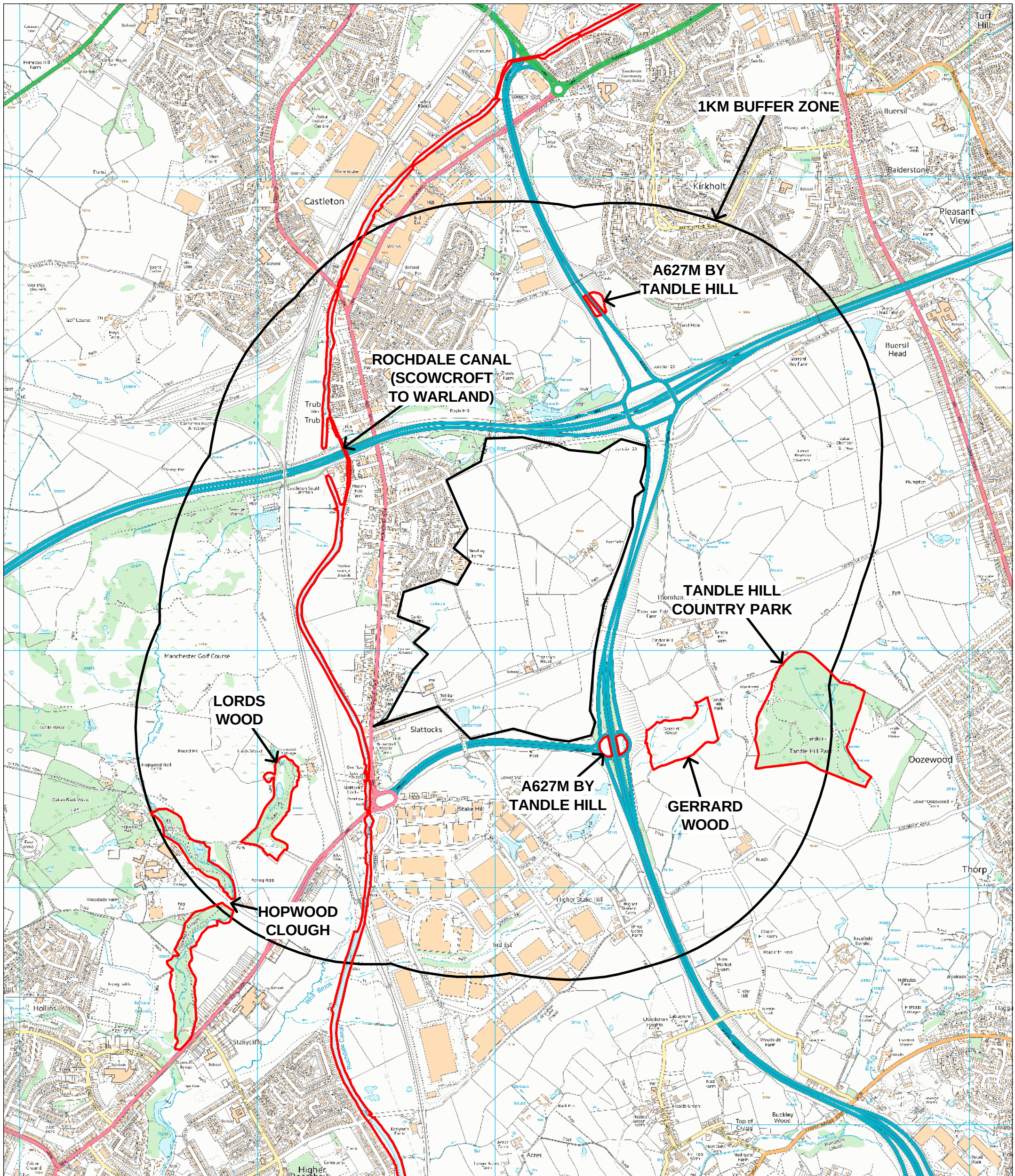
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KEY

SITE OF BIOLOGICAL IMPORTANCE

SBI BOUNDARY

**GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SD 8936 0942
MANCHESTER ROAD - MAP 1**

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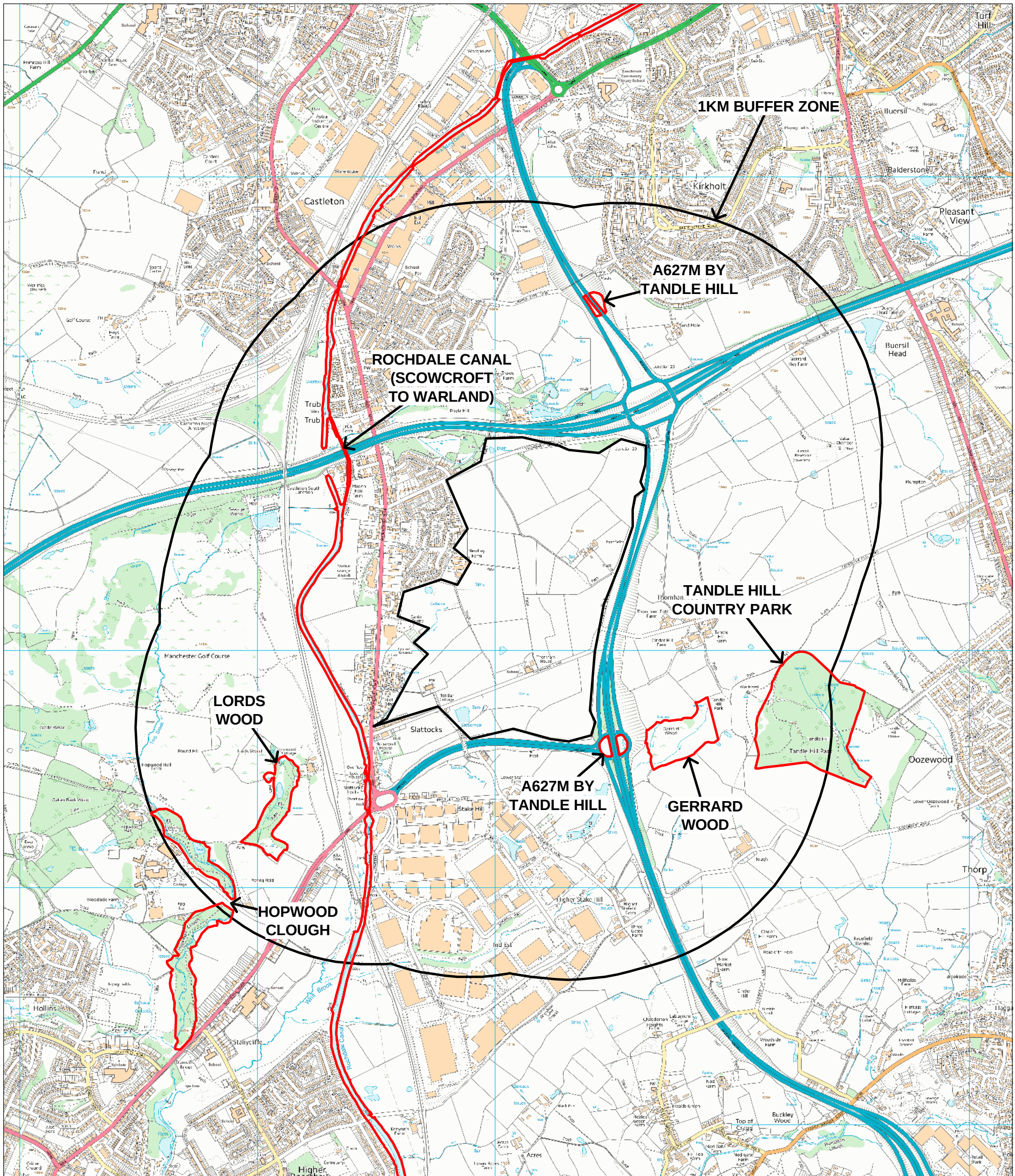
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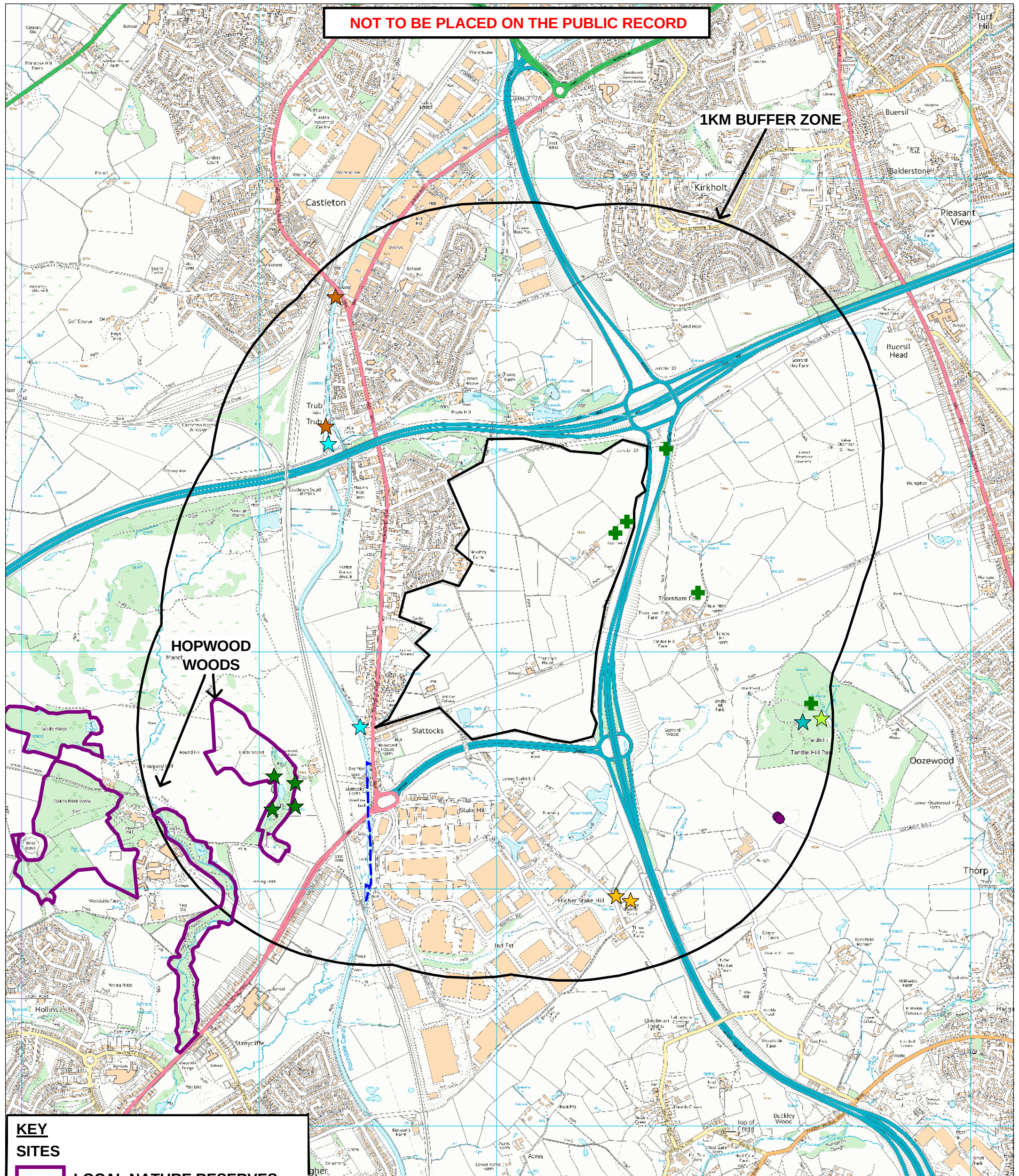


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MANCHESTER ROAD - MAP 2

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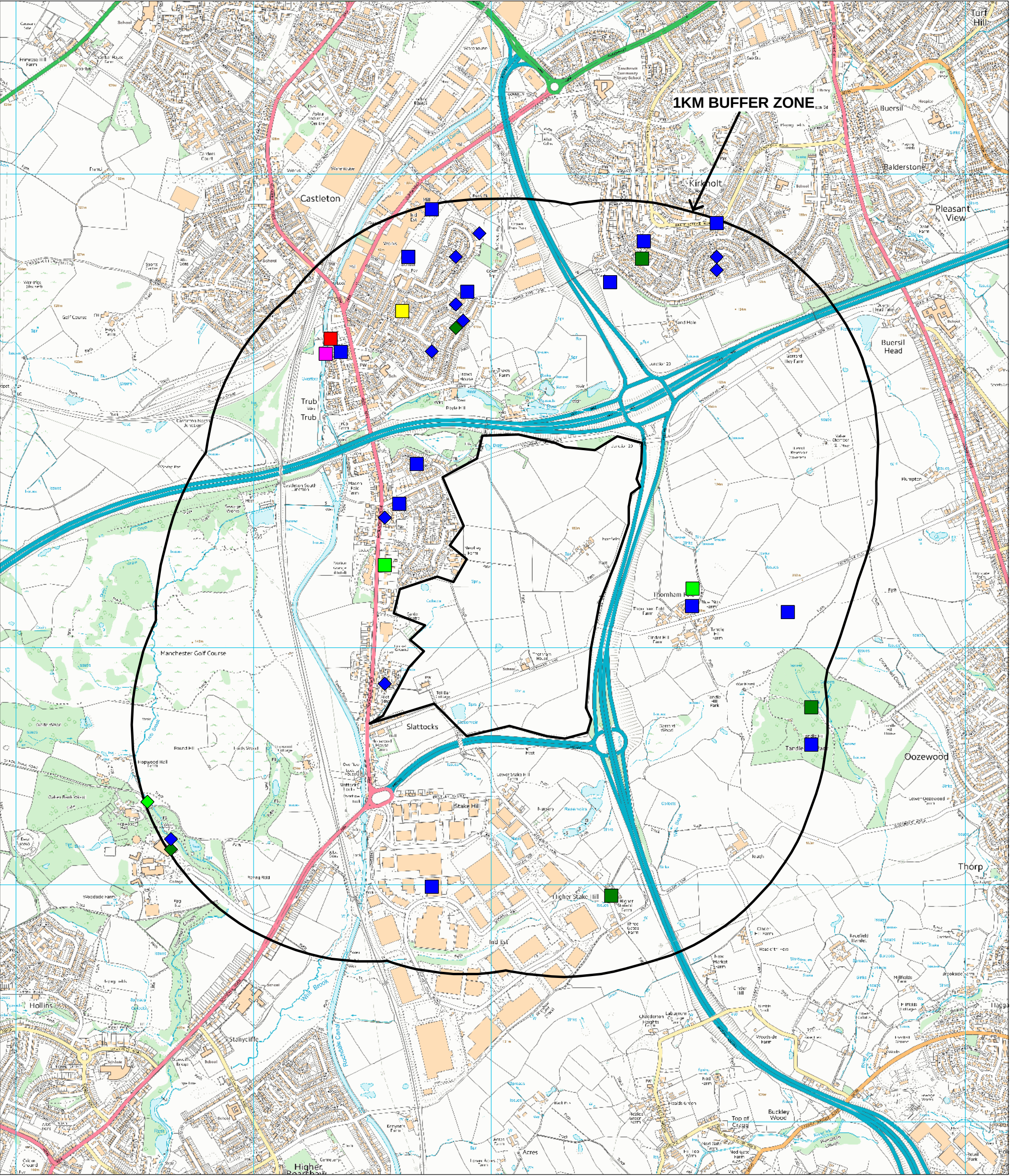
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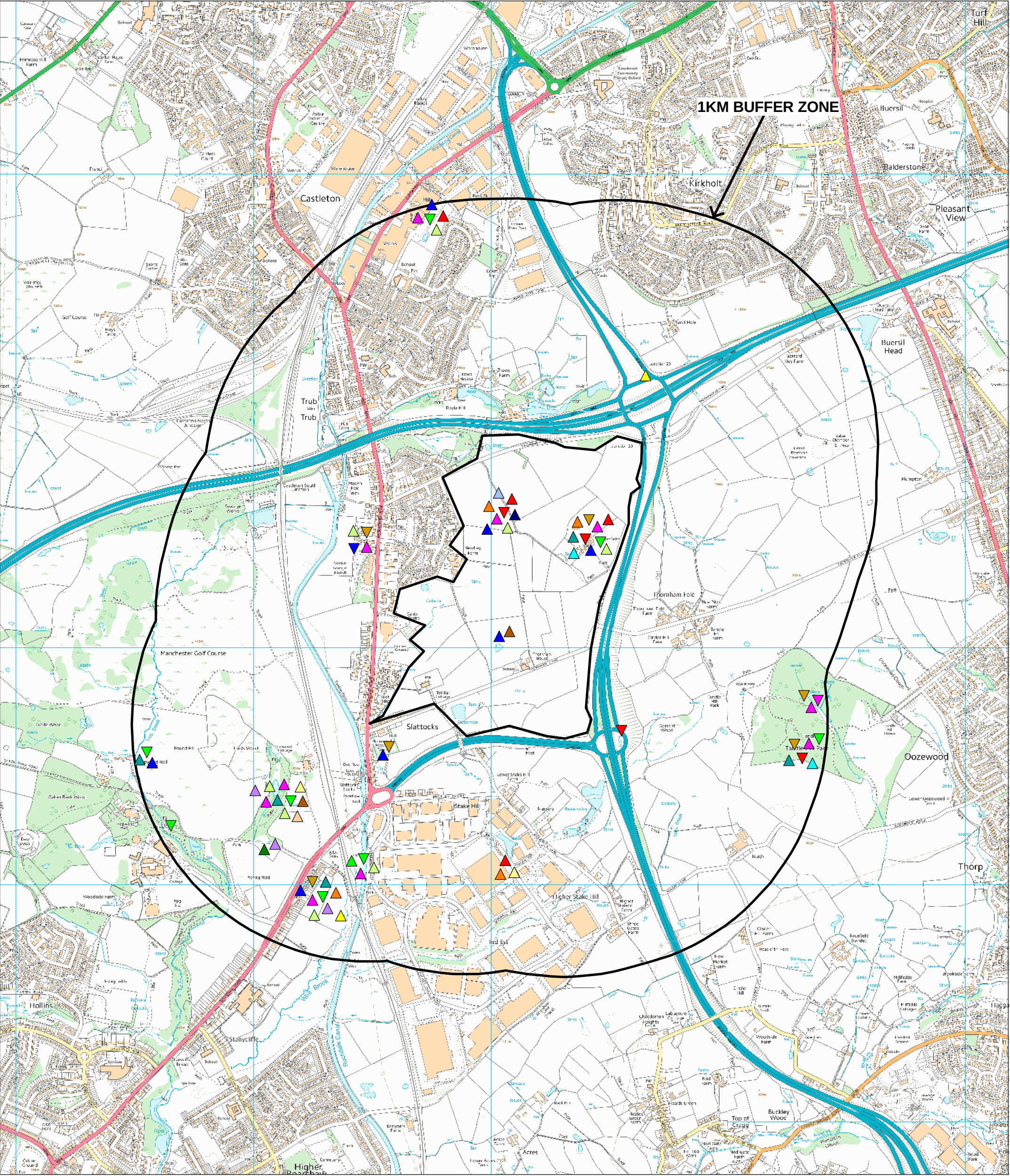
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MANCHESTER ROAD - MAP 5

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