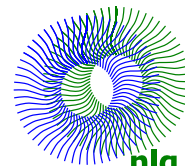


Taxal Edge

Extended Phase 1 Habitat Survey Report



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Project No:

**Taxal Edge
Extended Phase 1 Habitat Survey Report**

Client:

Treville Properties

Date:

April 2020

Status	Date	Prepared by	Reviewed by	Approved by
V1	01/04/2020	Ewa Tomalak Assistant Ecologist	Neil Lee-Gallon, Principal Ecologist	Neil Lee-Gallon Principal Ecologist
V2				
Final				

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Data supplied by the client or from other sources have been used; it has been assumed that the information is correct. No responsibility can be accepted by NLG for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work. This work has been undertaken in accordance with the quality management system of NLG Ecology Ltd. No part of this report may be copied or duplicated without the express permission of NLG Ecology Ltd and the party for whom it was prepared.

SUMMARY

NLG Ecology Ltd. was commissioned by Treville Properties to undertake an Extended Phase 1 Habitat Survey to describe the baseline wildlife interest of a house at Taxal Edge, Whaley Bridge, SK23 7EJ, along with some of the associated land. The survey was required in reference to a planning application for a proposed residential development within the grounds through identifying at an early stage any ecological constraints that may exist. As stated above, the survey is required in respect of Treville Properties intention to submit outline planning permission for a residential development comprising of 7 dwellings and additional garage and workshop for residential use. The design plan for the proposed works is included in Appendix 1, Figure 3.

The Extended Phase 1 Habitat Survey was undertaken on 4th March 2020 by Neil Lee Gallon (Principal Ecologist, CEnv, MCIEEM, Natural England Level 2 Class Licence holder for bats ref: 2015-10739-CLS-CLS and Natural England Class licence holder for barn owl ref: CL29/00163), Catrin Watkin (Ecologist, Natural England Class Level 1 survey licence holder for bats 2019-39208-CLS-CLS) and Ewa Tomalak (Assistant Ecologist, QCIEEM and Natural England Class Level 1 survey licence holder for great crested newts 2020-44518-CLS-CLS) all of NLG Ecology on the time of the survey. The survey included a detailed internal inspection of the main house and surrounding buildings with respect to its potential for roosting bats.

This report outlines the ecological constraints identified both during the survey and highlighted during an open-source desk study search, with reference to the Derbyshire Wildlife Trust Record centre data findings also. The report concludes with any recommendations for further survey effort to be undertaken prior to, and/or during, the proposed works. Figure 1 and 2, Appendix 1 illustrates the location of the site, which is centred on OS grid reference OSGR SK00228044; target notes are tabulated in Appendix 2 and photographs are included in Appendix 3.

The site lies approximately 200 m north of Toddbrook Reservoir, Site of Special Scientific Interest (SSSI). Treville Properties or the Local Planning Authority should consult Natural England with regards to the Impact Risk Zone if any future proposed plans meet the list of criteria likely to impact upon this designated site (see Conclusions and Recommendations section for more detail).

Whilst the site is generally dominated by the house and adjacent hard standing surfaces, habitats present within the survey area comprise of introduced scrub and amenity grassland, there is also deciduous woodland which is a 'priority' habitat, as covered by the UK Post-2010 Biodiversity Framework (formerly UK BAP).

Constraints with regards to designated sites, priority habitats, invasive species roosting bats and nesting birds were identified during the Extended Phase 1 Habitat Survey and should be addressed in advance of the site's proposals. Precaution recommendations have been made in respect to reptiles. Indirect impacts may also be caused during the works to brush piles and stone piles to small mammals.

Further detail is provided in the Conclusions and Recommendations section of the report.

The data contained within this report are considered to be valid for a period of 18 months (i.e. until 04/09/2021).

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1 INTRODUCTION

1.1 Background

- 1.1.1 NLG Ecology Ltd. was commissioned by Treville Properties to undertake an Extended Phase 1 Habitat Survey to describe the baseline wildlife interest of a residential house at Taxal Edge, Whaley Bridge, SK23 7EJ, along with the associated surrounding land with reference to a planning application. Appendix 1 illustrates the location of the survey area, which is centred on Ordnance Survey Grid Reference OSGR SK00228044. The site is shown on Figures 1 and 2 (Appendix 1) with target notes provided in Appendix 2 and Photographs 1 to 18 in Appendix 3. Relevant legislation is provided in Chapter 1.
- 1.1.2 The planning permission is required for a residential development comprising of four 3-4 bedroom houses, two 4-5 detached houses all with integral garages and one 6 bedroom detached house with detached garage and additional garage and workshop for residential use. The design plan for the proposed works is included in Appendix 1, Figure 3, target notes are tabulated in Appendix 2 and photographs are included in Appendix 3.
- 1.1.3 In order to identify ecological opportunities and constraints in respect of any proposals, this report seeks to fulfil the following objectives:
- To establish an updated ecological baseline for the site;
 - To assess the current potential for, or to confirm actual presence of, protected and notable species;
 - To make recommendations for further appraisal and ecological survey where required; and,
 - To make recommendations for habitat retention and enhancement, so as to ensure opportunities for biodiversity gain are considered in line with national and local planning policy and strategies for nature conservation (i.e. the UK Post-2010 Biodiversity Framework).
- 1.1.4 The approach for fulfilling the above objectives has comprised of undertaking an Extended Phase 1 Habitat Survey, including scoping for the potential or actual presence of protected faunal species, complemented by an open-source desk study data search.
- 1.1.5 The Extended Phase 1 Habitat Survey was undertaken on 4th March 2020 by Neil Lee-Gallon (Principal Ecologist, CEnv, MCIEEM and Natural England Level 2 Class licence holder for bats ref: 2015-10739-CLS-CLS and Natural England Class licence holder for barn owl ref: CL29/00163), Catrin Watkin (Ecologist, Natural England Class Level 1 survey licence holder for bats 2019-39208-CLS-CLS) and Ewa Tomalak (Assistant Ecologist, QCIEEM and Natural England Class Level 1 survey licence holder for great crested newts 2020-44518-CLS-CLS) all of NLG Ecology at this time.

1.2 Legislation

- 1.2.1 Legislation that is applicable to the site is summarised below and covers the UK and Wales only. For a more definitive statement of law it is recommend that the full legislative acts are sighted.

- **The Wildlife and Countryside Act 1981 (as amended)** gives general protection measures for wildlife and special measures for species included on Schedules of the Act. Schedule 1 lists birds that are afforded special protection, Schedules 4-6 protects various wild animal species from injury, killing or disturbance, and Schedule 8 confers protection to certain plant species. Section 14 prohibits the establishment of non-native invasive plant species (as listed within Schedule 9) to grow in the wild. This includes the moving of contaminated soil or plant cuttings. The statutory designation of Sites of Special Scientific Interest (SSSI) is the main site protection measure in the UK established under the WCA.
- **The Conservation of Habitats and Species Regulations 2017** (the ‘Habitats Regulations’): These Regulations consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 Regulations”). The Habitats Regulations, which are made under section 2(2) of the European Communities Act 1972, are the principal means by which Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”) is transposed for England and Wales and territorial seas.
- **The National Planning Policy Framework (NPPF) (Department of Housing Communities and Local Government, 2019)**: sets out the UK Government’s planning policies for England and provides guidance on how these policies are expected to be applied. The NPPF includes a chapter on biodiversity, Chapter 15 – Conserving and Enhancing the Natural Environment. In addition to being concerned with the protection of statutorily designated sites, the Chapter outlines ways in which the planning system is required to contribute to and enhance the natural and local environment and sets out guidance for local authorities in respect of the consideration of biodiversity and green infrastructure. The NPPF is a material planning consideration.
- **The ‘UK Post-2010 Biodiversity Framework’**: succeeded the UK Biodiversity Action Plan (UKBAP) in July 2012. The post-2010 framework is underpinned by the biodiversity and environment strategies of the four countries of the UK and sets out their common purpose and shared priorities. The UKBAP list of priority species remains as a reference source and has been used to help draw up statutory lists of priorities.
- **Biodiversity 2020**: is a strategy for England’s wildlife and ecosystem services’. Published in 2011, it is the most recent biodiversity strategy for England, and has as its mission to halt overall biodiversity loss, support healthy well-functioning ecosystems, and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.
- **Designated Sites**. SSSIs provide statutory protection for the best examples of the UK’s flora, fauna, or geological / physiographical features. They were originally notified under the National Parks and Access to the Countryside Act 1949, but renotified under the Wildlife and Countryside Act 1981, and further protected under the Countryside and Rights of Way Act 2000. Natural England lists ‘operations requiring consent’, which vary between SSSI sites. Permission must be requested if you intend to carry out a listed activity within the site itself that is likely to damage the interest of the site. For planning applications that fall within a SSSI Impact Risk Zone, consultation is sometimes required to assess whether or not the project is likely to impact upon the nearby designated site. For more information visit <https://www.gov.uk/guidance/protected-areas-sites-of-special-scientific-interest>.

- **The Countryside and Rights of Way Act (CROW Act) 2000** amended the Wildlife and Countryside Act 1981 to also make it an offence to intentionally or recklessly damage, destroy or obstruct a place that a species, listed on Schedules of the Wildlife and Countryside Act, uses for shelter or protection. The repealed Section 74 of the CROW Act listed habitats and species important to biological diversity in England, in accordance with the 1992 UN Convention on Biodiversity (Habitats and Species Action Plans under The UK Biodiversity Action Plan is the means by which the government complied with its duty under Section 74).
- **Section 41 of the Natural Environment and Rural Communities Act (2006)** replaces Section 74 of the Countryside and Rights of Way Act, 2000 and refers to the list of organisms and habitats of principal importance published under the repealed Section 74 of the CROW Act 2000. The Secretary of State must take such steps to further the conservation of the living organisms and types of habitat included in the list and promote the taking by others of such steps.
- **Habitats.** Habitat conservation, enhancement, minimisation of loss and improvement of ecological connectivity and biodiversity form the focus of many environmental acts, most prominently the Natural Environment and Rural Communities Act (2006), which aims to help achieve a rich and diverse natural environment and thriving rural communities through modernised and simplified arrangements for delivering Government policy.
- **Rhododendron.** Section 14(2) of the Wildlife and Countryside Act 1981 (WCA 1981); states that “if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.” Some rhododendron species are listed on the Schedule.
- **Bats** receive full protection under the Wildlife and Countryside Act 1981 (as amended). They are also protected under the Conservation of Habitats and Species Regulations 2010. The legislation makes it an offence to intentionally kill, injure or take any wild bat, to intentionally damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection whether present or not, and to intentionally disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection.
- **Nesting Birds.** Under the Wildlife and Countryside Act 1981 (as amended) all wild birds, their nests and eggs are protected by law and it is an offence to intentionally kill, injure or take any wild bird, to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built, and to intentionally take or destroy the egg of any wild bird.
- **Reptiles.** All UK reptile species are protected under the Wildlife and Countryside Act 1981 (as amended), making it illegal to intentionally kill or injure a common reptile. Rare reptiles (smooth snake and sand lizard) are also protected under the Conservation of Habitats and Species Regulations 2010. This makes it an offence to deliberately injure, kill, capture or disturb a rare reptile, or to damage or obstruct any place used by the species for shelter or protection.

- **European Hedgehog (*Erinaceus europaeus*)** are protected in England under Schedule 6 of the Wildlife and Countryside Act (1981) and are also listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). This lists English species that were formerly identified as requiring action under the UK Biodiversity Action Plans and which continue to be regarded as conservation priorities under many Local Biodiversity Action Plans (LBAP) and the current UK Post-2010 Biodiversity Framework.

2 METHODOLOGY

2.1 Desk Study

2.1.1 A desk study provides background information on the ecological context of a site and complements the survey data collected. The search area extended up to 2km for designated sites and 1km for notable species records, and incorporated the following resources:

- Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk was searched for European and National Statutory designated sites, including Special Protected Areas (SPAs), Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNRs). The site was also searched for records of nearby granted European Protected Species (EPS) mitigation licences;
- MAGIC also provided a basis for highlighting the location of nearby UK BAP (Biodiversity Action Plan – now covered by the UK Post-2010 Biodiversity Framework) priority habitats;
- Derbyshire Biological Records Centre was consulted with reference to relevant and notable species records Local Wildlife Sites and Local Nature Reserves on, or within 2km of, the site, data included as Appendix 4; and
- Google Maps (www.google.co.uk/maps) and MagicMap were reviewed to help determine terrestrial and hydrological connectivity with the wider landscape. This particularly related to the presence of ponds within 250m of the proposal site. Where potential water bodies are identified, further ground investigation of their presence and suitability for great crested newt (*Triturus cristatus*) is undertaken during the Extended Phase 1 Habitat Survey.

2.2 Phase 1 Habitat Survey

2.2.1 The Phase 1 Habitat Survey broadly followed the standard methodology as detailed in the JNCC (2010) *Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit*, and further developed in *Guidance for Baseline Ecological Assessment* (Institute of Environmental Assessment, 1995). This involved mapping and describing the broad habitats and compiling a general plant species list to reflect the floristic assemblage of each habitat type. All botanical names follow the nomenclature of Stace (2010).

2.2.2 Target notes (TN) were used to illustrate key features of interest (i.e. over mature trees / dead standing wood) or to draw attention to areas considered too small to map or for the purpose of highlighting the location of an invasive plant species.

2.3 Scoping for Protected Species

2.3.1 In accordance with the Institute of Environmental Assessment, (1995) the survey extended to assess faunal potential. The level of scoping does not necessarily constitute full survey effort, although reasonable effort is made to provide informed conclusions for the potential requirement of further survey. The scoping involved recording field evidence associated with the following protected faunal species:

- **Bats:** assessing structures (i.e. buildings and trees) for their potential to accommodate bat roosts and assessing habitats for foraging and commuting. Trees and buildings generally have four levels of classification and a corresponding number of recommended emergence/re-entry surveys for bats between May and September in accordance with best practice guidance (Collins 2016). The levels are as follows:
 - Negligible: no survey requirement;
 - Low: for buildings, one survey required at dawn or dusk and for trees, ecological supervision during soft-felling only required;
 - Moderate: for buildings and trees, two surveys required comprising one at dawn and one at dusk; if bats are seen to emerge or re-enter, then one further confirmation visit is required; and
 - High or confirmed day roost: three surveys, including at least one at dawn and one at dusk required.
- **Birds:** assessing habitat potential to accommodate breeding birds (including barn owl *Tyto alba*), recording any bird species heard or sighted, and noting any evidence of bird presence.
- **Reptiles:** assessing habitat value for basking and winter hibernation, to include noting the variation of habitat structure and the presence of features such as rubble piles.

- **Amphibians:** water bodies within 250m of the site were assessed for their potential to support breeding populations of great crested newt where possible.

2.4 Constraints

- 2.4.1 Due to the size and elevation (from ground level inspection) of the main building walls and complex roof structure, detailed external inspection was difficult in some areas even with the use of binoculars (and a high powered torch); therefore, some of the features mentioned were not able to be inspected in detail. Integral details such as depth of gaps, potential access points and evidence (droppings, feeding remains, fur stains etc.) could not be confirmed; however assumptions can be made based on the general condition of the building.
- 2.4.2 The barn building has been converted into storage space; therefore interior part couldn't be surveyed entirely. There was no access inside the shed building; therefore it has been assessed only externally.
- 2.4.3 The phase 1 habitat survey was completed outside the core season for identifying botanical species, however with the habitats present on site and an experienced botanist undertaking the surveys the species present could be identified to a level for habitat classification.
- 2.4.4 Whilst desk study records can help to inform and complement survey effort, they should not be treated as a comprehensive list of species present within the search area. Many species are under-recorded and a lack of records can reflect a lack of survey effort in certain areas rather than confirming absence of a species.

3 SURVEY FINDINGS

3.1 Desk Study

Designations and Notable Habitats

- 3.1.1 The context of the Taxal Edge survey area is immediately rural, with good ecological connectivity (woodland corridors) to the Todd Brook (340m to the west and north-west) and River Goyt, (630m to the east). The site is situated to the south of Whaley Bridge and 14 km north of Macclesfield town. The surrounding area is predominantly farmland with large patches of arable and pastoral lands.
- 3.1.2 The proposal site falls within close proximity of a Site of Special Scientific Interest (Toddbrook Reservoir) approximately 200m north; Peak District National Park is located approximately 8 km north east from the proposed scheme. Closest local nature reserve (LNR), Brookfield Pond is located 960 m north east from the proposed scheme. The site sits within the Impact Risk Zone for Toddbrook Reservoir SSSI; the identified risks for this SSSI include “all planning applications (except householder). “If any future proposals meet the criteria listed above as likely to impact upon the designation, then the Local Planning Authority should consult Natural England with regards to the Impact Risk Zone.
- 3.1.3 Records of eight Local Wildlife Sites (LWS) within 2km of Taxal Edge site were obtained through Derbyshire Wildlife Trust Record Centre. The closest of these is Scar Wood and Todd Brook LWS located 750m south-east from the site.
- 3.1.4 Habitats recorded by MAGIC as being within 2km of the site include: good quality semi-improved grassland, lowland fens, lowland dry acid grassland, lowland heathland, upland heathland, lowland and deciduous woodland and broadleaved woodland; Deciduous woodland ‘priority’ habitat, as covered by the UK Post-2010 Biodiversity Framework (formerly UK BAP), is located within the proposed working area.

Recorded Species

- 3.1.5 The Derbyshire Wildlife Trust Record Centre returned the following, relevant species records within 2km of Taxal Edge property:
- **Mammals (European Protected Species and Schedule 5 species as listed within the Wildlife & Countryside Act 1981):** 1 historic record of otter (*Lutra lutra*) and 1 record from 2016, 2 historic records of water vole (*Arvicola amphibious*) from 1982 to 1997, 6 historic records of brown hare (*Lepus europaeus*) from 1983 to 2007, 2 historic record of brown long-eared bat (*Plecotus auritus*) from 2008 to 2010 and over 20 records of common pipistrelle (*Pipistrellus pipistrellus*) from 1983 to 2018 (with sightings);
 - **Birds (Schedule 1 species as listed within the Wildlife & Countryside Act 1981):** 7 historic records of kingfisher (*Alcedo atthis*) and 1 record of barn owl (*Tyto alba*) from 2020;
 - **Amphibians:** 9 mostly historic records of common toad (*Bufo bufo*) from 1984 to 2015;
 - **Reptiles:** 3 mainly historic records of slow worm (*Anguis fragilis*) from 1990 to 2011 and 1 historic record of common lizard (*Zootoca vivipara*) from 1976.
 - **Invasive species (Schedule 9 species as listed within the Wildlife & Countryside Act 1981):** 3 records of American mink (*Neovison vison*) from 2003 to 2011, 39 records of Japanese knotweed (*Fallopia japonica*) from 1973 to 2013, over 50 records of Himalayan balsam (*Impatiens glandulifera*) from 1976 to 2015, 1 historic record of giant hogweed (*Heracleum mantegazzianum*) from 1987 and 33 records of rhododendron (*Rhododendron ponticum*) from 1969 to 2014.

European Protected Species Licences

- 3.1.6 A search, using the MAGIC website, revealed two records of granted EPS Mitigation licences for bats within 2km of the site. The licence EPSM 2012-5153 was issued from 15/02/2012 to 30/09/2013, allowing the destruction of a common pipistrelle and soprano pipistrelle (*Pipistrellus pygmaeus*) resting place, located approximately 770m north-east. The licence 2017-32521-EPS-MIT was issued from 01/12/2017 to 31/03/2019, allowing the destruction of a common pipistrelle, soprano pipistrelle and brown long-eared bat resting place, located approximately 1.7km north-east.
- 3.1.7 In relation to nearby potential amphibian breeding habitat, including great crested newt, OS mapping and aerial photography revealed no ponds present within 250m of the survey area.
- 3.1.8 During the desktop study search, historic reptile records were returned. Also, terrestrial habitat assessed within the survey was deemed suitable for; therefore precautionary working measures have therefore been included within the conclusions and recommendations section for common reptile species.

3.2 Habitats and Flora

- 3.2.1 The habitat survey findings are illustrated in Figure 2, Appendix 1 and described further below; please note that the building is described in Section 3.3. Full target notes (TN) are tabulated in Appendix 2 and cross referenced, where applicable, within the text below. Photographs are provided in Appendix 3.

Habitats

Semi-Natural Broadleaved Woodland

- 3.2.2 Broadleaved woodland pockets are surrounding the main house and the survey area from north, north-east, north-west, south, south east and south-west (Photographs 1 and 2). The northern section is dominated by early mature and mature sycamore (*Acer pseudoplatanus*) trees with occasional oak (*Quercus sp.*) and holly (*Ilex sp.*). Southern part is represented by beech (*Fagus sylvatica*) with understory of bramble (*Rubus fruticosus agg.*), immature ash (*Fraxinus excelsior*), raspberry (*Rubus idaeus*) and holly. To the south, some signs of previous felling and de-vegetation works has been recorded with the locations shown on the TN1 and these were as a result of wind damage from the winter storms.

Introduced Scrub

- 3.2.3 Introduced scrub patches bound the house to the north and south (Photograph 3 and 4.) and these reflect a mature garden with limited management; this is dominated by rhododendron, laurel (*Laurus sp.* *Prunus sp.*) species and Wilson's honeysuckle (*Lonicera nitida*). Also present are bramble and bracken (*Pteridium sp.*) stands, located mainly to the western side of the main house.

Amenity grassland

- 3.2.4 Amenity grassland as unmanaged lawn is located to the northern side of the main house (Photograph 5), with common species of perennial rye grass (*Lolium perenne*) and dandelion (*Taraxacum sp.*).

Bare Ground/Hard Standing

- 3.2.5 Areas of bare ground and hard standing surfaces (concrete) dominate the wider site of Taxal Edge House, Photographs 1,9 and 12), including the access track from the north, and the courtyard around and between the house and outbuildings with brash and rubble piles located to the south-east (TN2 and TN3).

Invasive Plant Species

- 3.2.6 Few stands of rhododendron were recorded surrounding the main house (Photograph 3).

3.3 Protected Species

- 3.3.1 The Extended Phase 1 Habitat Survey has identified potential, or confirmed presence, for the following protected species:

Bats

- 3.3.2 The building, barn and the shed were assessed internally and externally in accordance with best practice guidance (Collins, 2016) to ascertain its potential use by, and/or value to, roosting bats, with the results detailed below.

External inspection of the main house

- 3.3.3 The residential house is a large, two-storey, grey stone building with a complex shape resulting from numerous extensions over the years; and a complex roof structure that includes both flat and pitched, slated/tiled roof sections (Photographs 6 to 14) and guttering present through-out. The buildings has been built-on and modernized over the years however In general the house appears to be in good condition, with relatively intact mortar observed on each of the building's elevations. The exterior of the building has multiple bat potential features, collectively assessed as carrying an overall high roosting potential with some of them highlighted in this report.
- 3.3.4 The northern elevation with multiple cracks and crevices in masonry with some missing mortar (Photograph 6 and 7) and gaps between the tiles and brickwork on the ridge. All doors, windows and associated frames, on the northern side are well sealed with no bat roosting potential.
- 3.3.5 The middle section of the north eastern elevation with flat roof (Photograph 10), concrete block and rendered walls on the ground floor and wood cladding on the 1st floor (Photograph 13) and metal stairway to the north. Some guttering and barge boards are coming off the walls resulting in gaps that carry bat roosting potential. To the north elevation multiple crevices are present in the stonework and under the lead flashing (Photograph 8 and 9).
- 3.3.6 A water tower integral to the roof of the main building with some cracks between the stonework, raised tiles and missing mortar at the top.
- 3.3.7 To the south eastern elevation small gaps are visible between the window frame and stonework along with crevices and voids under the soffit board, lifted roof tiles and flashing on the eastern side of the building. (Photograph 11).
- 3.3.8 The southern elevation has uPVC windows and the roof overhangs at the eaves extended roof. A large gap is visible between the fascia board and the flat roof (Photograph 12).
- 3.3.9 The west side of the building with uPVC windows and numerous air vents. Some crevices are visible in the stone work, missing brick and crevices behind the timber cladding (Photograph 13). Gaps were also noted behind the rotting fascia boards;
- 3.3.10 Multiple gaps suitable for roosting bats exist across the house roof, particularly beneath the ridge tiles, edges of the roof tiles/slate, on the ridge and loose/raised lead flashing is also present in some areas, creating further suitable gaps. Two chimneys are present with multiple crevices in the mortar of the stonework.

Internal house inspection

- 3.3.11 The internal of the house is currently used as a habitable dwelling. The layout of the house comprises (from ground floor to second floor):
- Series of residential flats;
 - Four residential flats, and
 - Residential flat and small loft void above the stairs.
- 3.3.12 The small triangular loft void (approx 0.5m in height by 1m width) above the stairs was inspected with no evidence of bats using the void as a roost site either currently or historically; and has been assessed as having negligible bat potential, due to its size and limited capacity.
- 3.3.13 There was no evidence of bat use or any bat droppings present inside the house with all rooms being used as communal halls and stairways or for residential use.

Other Site Buildings

Barn

Exterior:

- 3.3.14 The barn, located to the northern side of the main building is a stone building with double, wooden garage doors to front elevation (Photograph 15). South elevation shows purlain with few crevices, ridged roof with Velux window and rigged gable end. The entire roof is in very good condition (probably re-roofed 4-5 years ago). To the eastern side, the barn has two wooden framed widows, covered with boards. To the back, the northern elevation of the barn has several small crevices between the wall stonework, however no staining has been recorded (Photograph 16).

Interior:

- 3.3.15 The interior of the barn couldn't be assessed completely, due to the limited access. On the eastern side of the wall an empty birds nest has been recorded. The soffit boards are gridded with no bat roosting potential. Peacock butterfly (*Inachis io*) wing has been found, which may suggest some previous bat activity (Photograph 17). In general, the barn has been assessed as holding a moderate bat roosting potential, due to the crevices in the stonework and butterfly wing found inside the building.

Shed

- 3.3.16 The shed is a small, one storey outbuilding with pitched roof (Photograph 18). Generally the stonework of the shed is in good condition with superficial holes and some mortar loss on the sides. There is a wooden barge board to rear elevation, with gap underneath. Slate roof with occasional raised slate, but overall look intact. The shed has been assessed as having a low value for bats.

Trees

- 3.3.17 Broadleaved woodland present towards the northern and southern side of the house was assessed to have collective bat roosting potential, ranging between low and high potential due to the presence of bark splits and crevices to varying degrees in most of the trees. Further bat roosting opportunities are likely to exist in trees throughout the areas of woodlands.

Nesting Birds

- 3.3.18 The site's scrub and mature trees offer nesting opportunities throughout the survey area as well as inside the barn building and outside of the main house.

Reptiles

- 3.3.20 Potential opportunities for common reptile species were found near the introduced scrub stands and rubble piles.

Small mammals

- 3.3.21 The scrub habitats and brash piles on the site present on site offer refuge opportunities to small mammals, such as hedgehog.

4 CONCLUSIONS AND RECOMMENDATIONS

- 4.1.1 The survey has confirmed the potential or actual presence of roosting bats and nesting birds. Also recommendations have been made in regards to designated sites, priority habitats, invasive species and small mammals, reptiles. The following is therefore recommended in respect of the above.

Designated Sites

- 4.1.2 The survey area lies within the Impact Risk Zone (IRZ) for Toddbrook Reservoir Site of Special Scientific Interest (SSSI), located approximately 200m north. The identified risks for this SSSI include “all planning applications (except householder)”. If any future proposals meet the criteria listed above as likely to impact upon the designation, the Local Planning Authority should consult Natural England with regards to the Impact Risk Zone.

Priority Habitats

- 4.1.3 Priority deciduous woodland habitat sits within the survey area. In the first instance, it is recommended that all vegetation clearance is avoided within this area of ‘priority’ habitat. If this is not possible then vegetation clearance should be kept to an absolute minimum and should avoid the removal of any semi-mature and mature trees or tree limbs which are integral to the ‘priority’ status of the woodland. The loss of understory within the woodland should also be kept to a minimal, but is not considered a major loss of biodiversity.

- 4.1.4 As ‘priority’ deciduous woodland habitats can be of great ecological importance for wildlife and are a hotspot for wildlife activity including by foraging and commuting bats, and birds, it is recommended that overnight lighting is avoided. If avoidance of overnight lighting is not possible, the lighting must be positioned facing away from the woodland to avoid the disturbance of any wildlife present within.

Invasive Species

- 4.1.5 Rhododendron plant species were identified during the Extended Phase 1 Habitat Survey. Some rhododendron species are listed as invasive species on Schedule 9 of the Wildlife and Countryside Act (1981, as amended). If any of the proposals are to affect, or require the removal of, areas of rhododendron, then to prevent further spread it is recommended that stems are cut by hand and material chipped on site. All cut stumps should be hand painted with appropriate herbicide or herbicide plugs inserted into all stumps. Re-treatment and cutting may be required of any new growth on treated stumps.

Bats

- 4.1.6 The main building was assigned ‘high’ bat roosting potential, largely due to the ideal habitat available both within, and connecting to, the site, and the multiple features of value to roosting bats present on the exterior of the building. Other buildings,- barn and shed where assigned respectively as having moderate and low bat roosting potential. Based on the scale of the works, the potential roosting locations that have been identified are anticipated to be impacted. To confirm the presence or absence of roosting bats within the building, a suite of three bat activity surveys will be required based on the number of potential roosting features that have been identified. In line with ‘Best Practise Guidelines’ (Collins 2016), two dusk emergence surveys and one dawn re-entry survey will be required during the active season (between May and September inclusive) to identify the presence/absence of bats roosting within the main building; a dusk and dawn survey of the barn and a dusk survey of the shed. If a bat roost(s) is found to be present and is anticipated to be impacted (blocked/destroyed/altered) by the works, a Natural England bat licence will be required in order to lawfully destroy the roost(s). Natural England, depending on their work load, usually takes 30 working days to process an application.

- 4.1.7 The site offers ideal roosting, foraging and dispersal opportunities to bat species, with good ecological connectivity to the wider landscape.
- 4.1.8 Broadleaved woodlands identified within 50m of the site, would require preliminary ground level roost assessment of any mature tree, followed by two or three emergence/re-entry surveys for bats should any felling or management proposals be made.
- 4.1.9 Should roosting bats be identified during surveys of any of the buildings or trees, then an assessment should be made of the potential impacts upon the bats and their roost(s) that may arise from any proposed works. If the proposals will impact upon bats or their roosts then a Natural England mitigation licence will be required to avoid any breach of the legislation afforded to the species.

Nesting Birds

- 4.1.10 Nesting opportunities for a range of species exist across the site, including within the exterior of the house building, inside the barn and within scrub areas and mature trees.
- 4.1.11 It is recommended that the scrub and potential trees that will need to be cut back to facilitate the works should be removed/managed prior to the main nesting bird season (March to August inclusive) and maintained occasionally to deter any uptake prior to the commencement of works. If this timing is not possible and building works, scrub or mature trees need to be removed during the main nesting bird season, checks of the affected areas will need to be undertaken by an ecologist no more than 48 hours prior to removal/management. If any active nests are identified, a buffer of at least 5m in all directions would be required, to protect the nest from disturbance until any chicks have fledged.

Reptiles

- 4.1.12 The site presents potential refuge opportunities to common reptile species such as slow worm and grass snake. The following Precautionary Working Method Statement must be adhered to during any future site clearance works, and carried out in accordance with the recommendations for nesting birds:
- Any areas of scrub for which removal is required will first be strimmed to a height of no less than 150mm and left for 48 hours so that any animals within can disperse;
 - Careful removal of any potential refugia piles (e.g. rubble/debris, wall dismantling) will be undertaken by hand. Ecological supervision is not considered necessary if vigilance and care is maintained by on-site staff;
 - If any reptiles are found during unsupervised (by an ecologist) works on site, works will cease in that area until an ecologist or on-site trained member of staff has been notified and provided advice on how to proceed – if unharmed, the animal should be allowed to disperse of its own accord;
 - If any injured reptiles are found during works on site, these will be carefully placed into a clean bucket containing some vegetation and covered over in a quiet place away from the works until an ecologist has been contacted for advice on how to proceed;
 - A copy of these measures must be kept on site and all contractors working on the site made aware of the possible presence of reptiles and amphibians (albeit low risk).

Small mammals

- 4.1.15 The scrub habitats and brash piles present on site offer refuge opportunities to small mammals, such as hedgehog.
- 4.1.16 Any dense scrub or brash piles on site, if removal is required, should be carefully removed or cut back in stages by hand in accordance with previous recommendations, taking care to look out for hedgehogs in particular. If any hedgehogs are found, these should be safely relocated to a nearby, suitably dense/well-vegetated area or brash pile that will remain undisturbed by the works.
- 4.1.17 If there is any doubt over translocating the hedgehog to a different part of the site, or if the hedgehog appears to be harmed or underweight, an ecologist will take the hedgehog into care and will contact a local wildlife hospital for advice.

Biodiversity Enhancements

- 4.1.18 To compensate for loss of woodland habitats Treville Properties are undertaking tree planting of 1500 whips of hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), field maple (*Acer campestre*), hazel (*Corylus avellana*) and crab apple (*Malus sylvestris*). These plantings are along the boundaries of the woodland to provide woodland edge habitat which as they mature will diversify the woodland structure (Figure 5).
- 4.1.19 In addition a detailed woodland management plan is currently being developed by NLG Ecology on behalf of Treville Properties for the area indicated in blue surround on Figure 4, Ownership Boundaries. The aim of the woodland management plan is to enhance and ensure the longevity of the surrounding priority woodland habitats for the future through sensitive woodland management practices.

5 REFERENCES

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- Google Maps (<https://www.google.co.uk/maps/>)
- IEEM, (2006). Guidelines for Ecological Impact Assessment in the United Kingdom, Final Draft, Institute of Ecology and Environmental Management
- JNCC, (2010). Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit. ISBN 0 86139 636 7
- Multi-Agency Geographic Information for the Countryside <http://magic.defra.gov.uk/MagicMap.aspx>
- Stace, C (2010). New Flora of the British Isles (3rd Ed), Cambridge University Press
- Stone, E.L. (2013). Bats and lighting: Overview of current evidence and mitigation. University of Bristol, UK
- The National Biodiversity Network Atlas (<https://records.nbnatlas.org>)

6 APPENDICES

Appendix 1. Figures

Figure 1: Site Location (red boundary) and surrounding priority habitats dominated by broadleaved woodland (dark green shading).

Screenshot taken from Magic maps (<https://magic.defra.gov.uk/MagicMap/>- accessed 27/03/20)

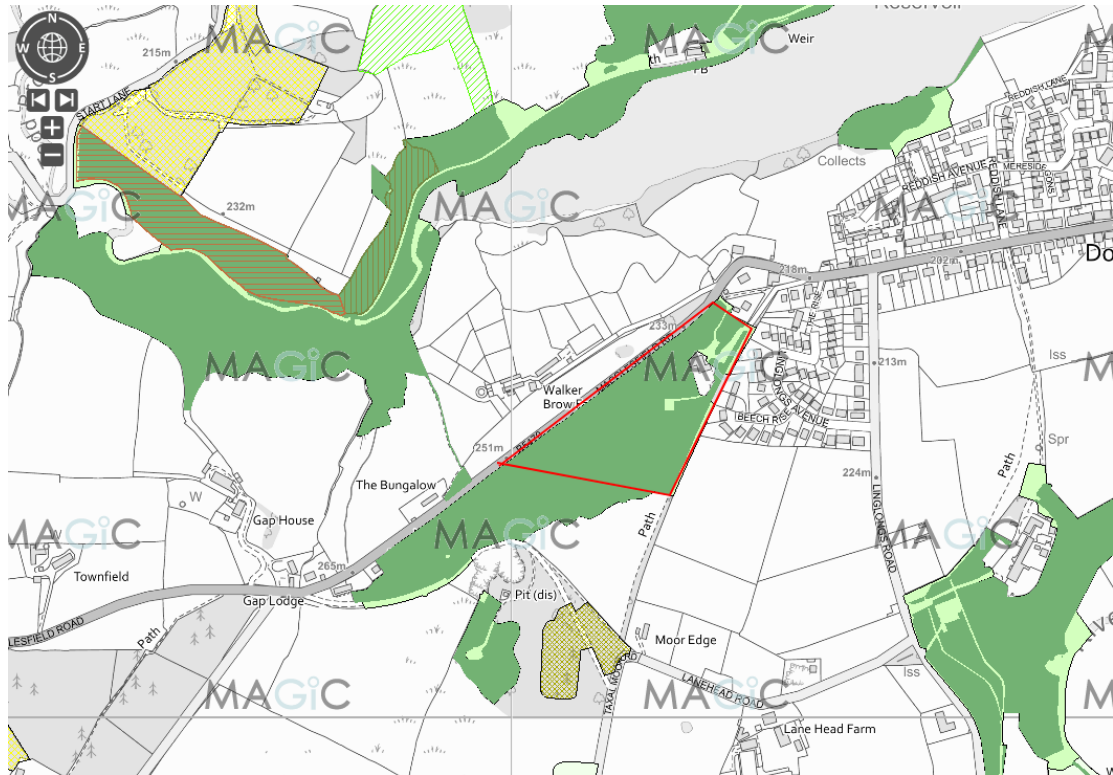
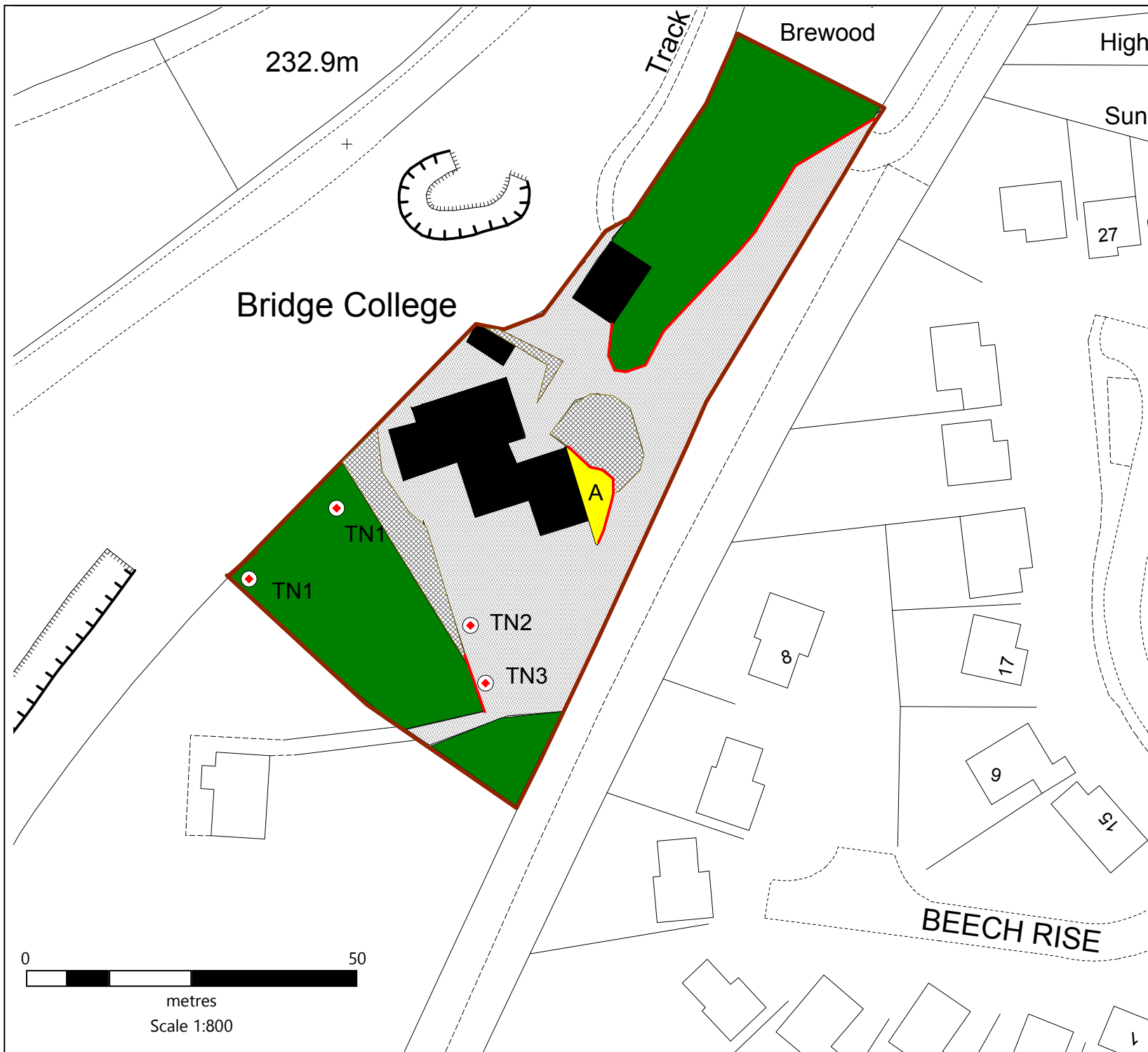


Figure 2. Extended Phase 1 Habitat Map.









Figure 3. The design plan for the proposed works.

Figure 4. Ownership Boundaries.

Figure 5. Planting area map with solid green showing thick boundary type planting, the shaded areas are indicating random planting.




Key

-  Broad-leaved semi-natural woodland
-  Amenity grassland
-  Introduced shrub
-  Wall
-  Building
-  Bare ground
-  Target note
-  Survey area



Taxal Edge, Whaley Bridge
Treville Properties

Figure 2: Extended Phase 1 Habitat Plan

00	30/03/2020	ET	FM	FM
Rev	Date	Drawn	Checked	Approved
 Scale at A4 1:800		Contains ordnance survey data © Crown copyright and database right 2020		



General Notes
 01: Dimensions must not be scaled from this drawing. If in doubt, please ask.
 02: All dimensions are in millimetres unless noted otherwise.
 03: All dimensions should be verified on site before proceeding with the work.
 04: TADW Architects shall be notified in writing of any discrepancies.
 05: Copyright to remain the property of TADW Architects in accordance with the Copyright, Designs and Patents Act 1988.

Legend

- Schedule of Accommodation:**
- 4 no. 4 bedroom houses with integral garage
House Type A
 - 2 no. 4 bedroom detached houses with integral garage
House Type B
 - 1 no. 6 bedroom detached house with detached garage
House Type C

Issue	Description	Date	Drawn	Checked
P5	Detached house to plot 7	27.03.20	AM	GN
P4	Plots 5 and 6 detached	25.02.20	AM	GN
P3	Turning area amended	24.02.20	AM	GN
P2	Turning area amended	27.01.20	AM	GN
P1	Drawn for comments	17.01.20	AM	GN

Drawing Status
 P - Planning | T - Tender | C - Construction | R - As Record

For Approval



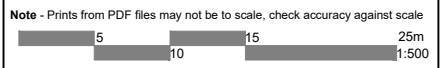
Six St. Petersgate Stockport Cheshire SK1 1HD
 Ph 0161 477 6158 Fx 0161 480 8342 mail@tadw.co.uk www.tadw.co.uk

Client **Mr. G. Cullen**

Job **Taxal Edge, Whaley Bridge**

Title **Proposed Site Plan**

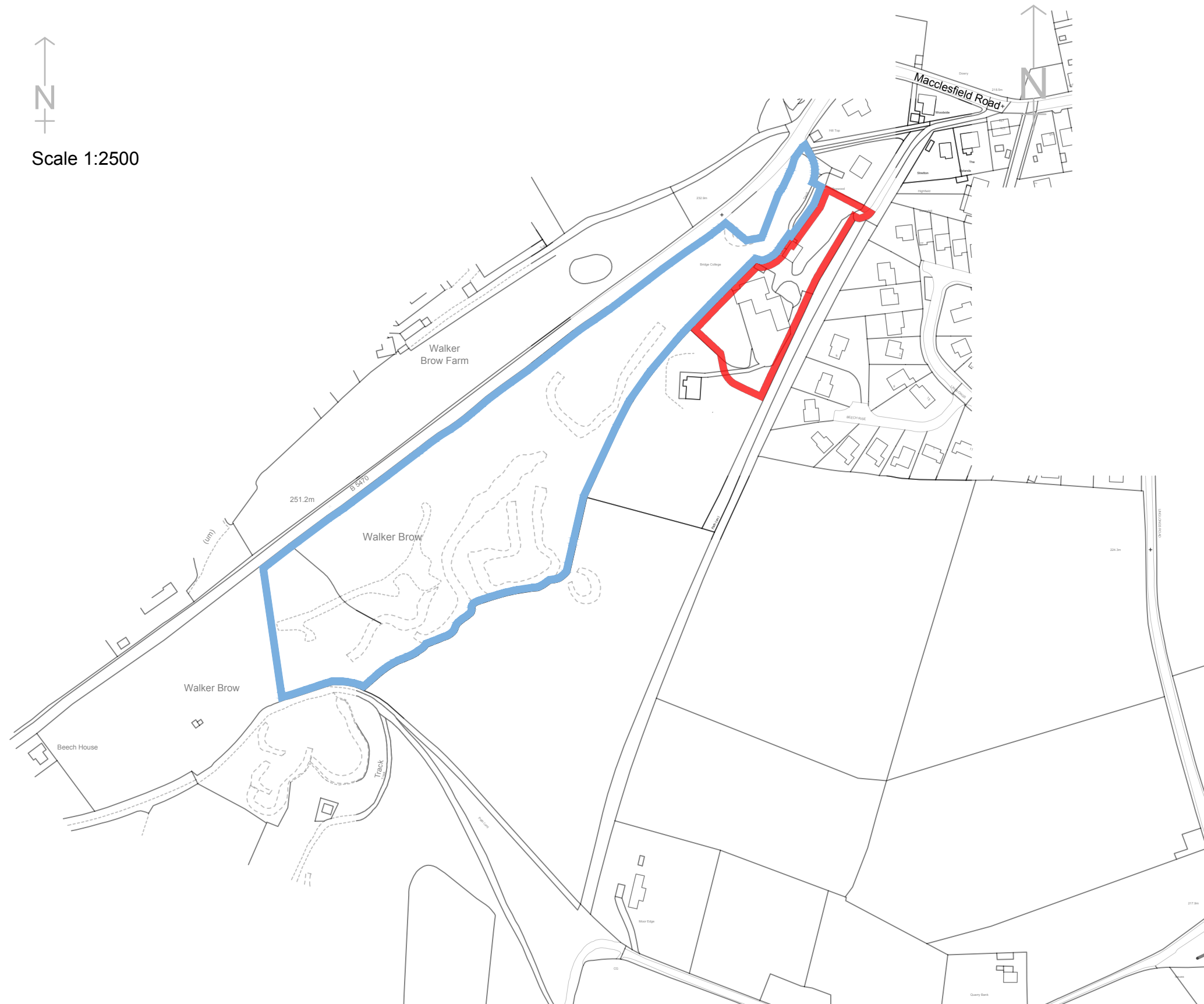
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Job Number 411179	Drawing Number 20	Issue P5
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Scale 1:2500



General Notes
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Legend

P1	Drawn for comments	08.11.19	AM	GN
Issue	Description	Date	Drawn	Checked

Drawing Status
 P - Planning | T - Tender | C - Construction | R - As Record

For Approval



Six St. Petersgate Stockport Cheshire SK1 1HD
 Ph 0161 477 6158 Fx 0161 480 8342 mail@tadw.co.uk www.tadw.co.uk

Client **Mr. G. Cullen**

Job **Taxal Edge, Whaley Bridge**

Title **Location Plan
 Site Edged Red**

Scale **1:2500 @ A3**

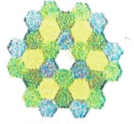
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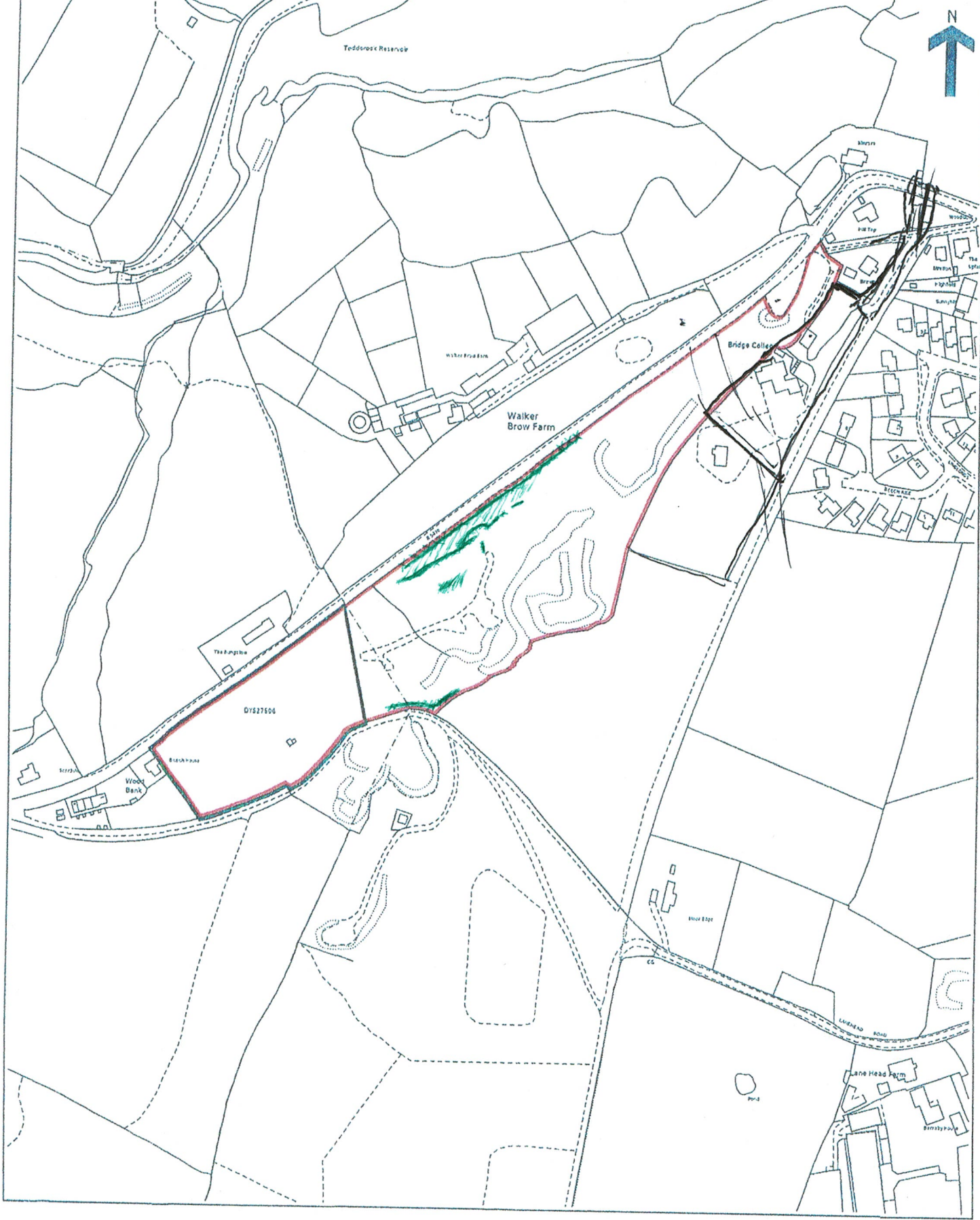
Planting Mar/Apr 2020

HM Land Registry
Official copy of
title plan

Title number **DY281094**
Ordnance Survey map reference **SK0080SW**
Scale **1:2500**
Administrative area **Derbyshire : High Peak**



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Appendix 2 - Target Notes

Target Note No.	Description
1	Previously de-vegetated areas.
2	Brash piles.
3	Rubble piles.

Appendix 3 - Photographs

<p>Photograph 1. Broadleaved woodland seen on both of the sides of tarmacked road.</p>	<p>Photograph 2. Pocket of broadleaved woodland located to the north of the site.</p>
	
<p>Photograph 3. Introduced scrub, with dominant rhododendron, towards northern side of the building.</p>	<p>Photograph 4. Ornament and introduced scrub.</p>
	

Photograph 5. Stripe of amenity grassland.



Photograph 6. Northern facing elevation with ridge tile holding bat roosting potential (circles).



Photograph 7. Northern side of the building with lifted flashing (circled).



Photograph 8. The eastern elevation of the house with circled multiple features (lifted flashing, holes).



Photograph 9. Overview of the south-eastern side of the main building.



Photograph 10. The north-eastern elevation of the house with flat roof.



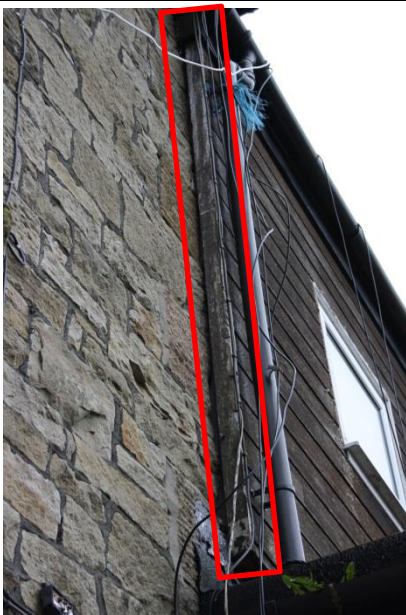
Photograph 11. Voids under soffit board and lifted tiles and flashing on the eastern side of the building (marked).



Photograph 12. Southern overview of the house.



Photograph 13. Eastern elevation with some gaps to edge allowing potential access to behind wooden cladding (marked).



Photograph 14. Western elevation of the main building with bat potential under soffit board (marked).



Photograph 15. Barn building- overview.



Photograph 16. Crevices in the stonework on the back of the barn (circled).



Photograph 17. Peacock butterfly wing pieces/bat prey remains in the floor of barn area.
















Photograph 18. Shed building with the wooden barge board (circled).

















Appendix 4: Desk Study

KEY






Species

 GCN	 GCN 500m buffer	 White-clawed Crayfish	 Otter
 Water Vole	 Reptile	 Bat Roost	 Bat Sighting
 Badger Sett	 Badger Sighting	 BAP Bird	 Schedule 1 Bird
 Swift	 BAP Mammal	 BAP Toad	 Toad Crossing
 BAP Fish	 Black Poplar	 Veteran Tree	 BAP Invertebrate
 Derbyshire Red Data List Plant		 Invasive Species	

Habitats

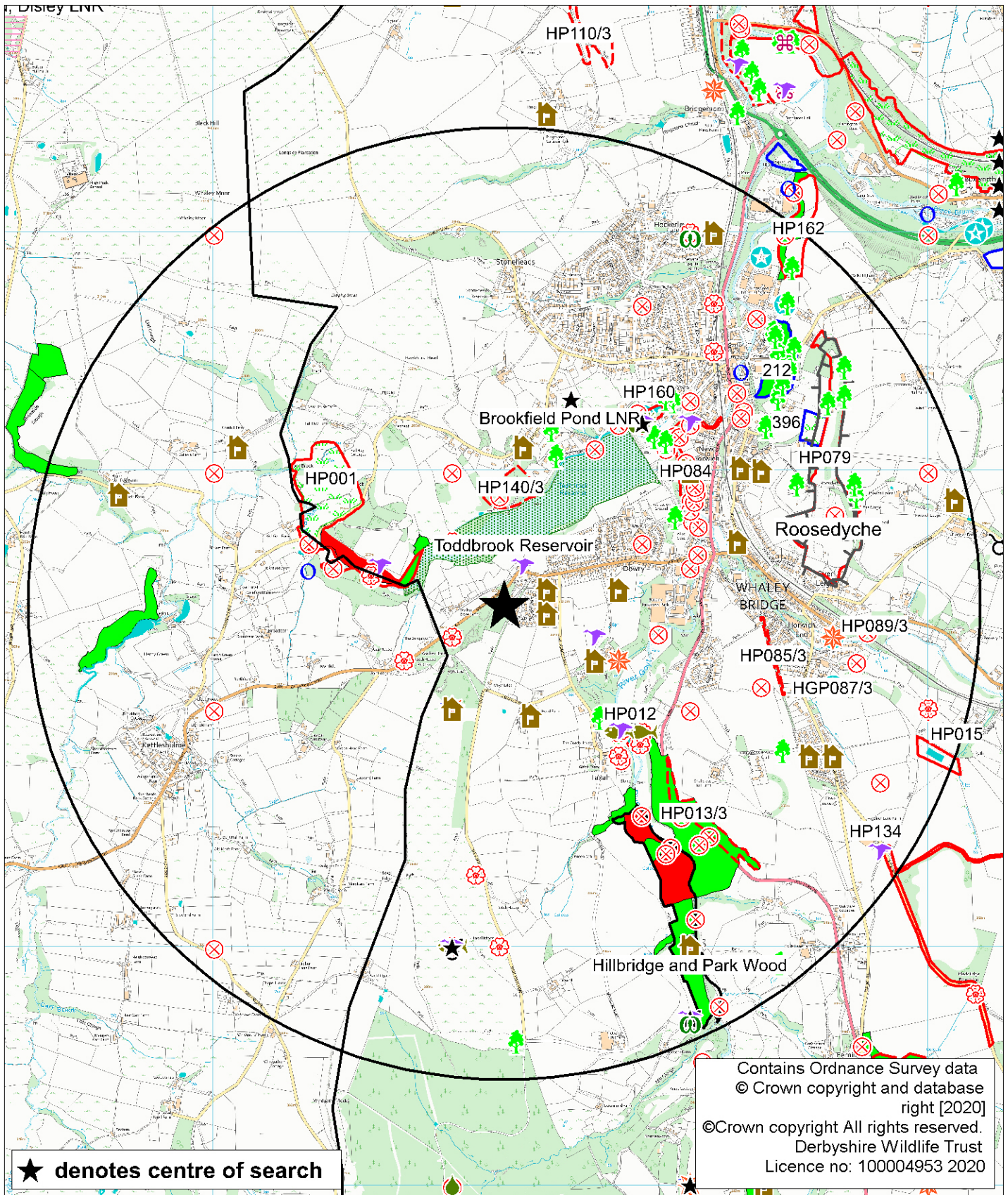
	Traditional Orchard
	Open Mosaic
	Purple Moor Grass and Rush Pasture
	Lowland Heath
	Lowland Fen
	Semi-natural Grassland
	Reedbed
	Lakes
	Historical Wood Pasture and Parkland
	Ponds
	
	Notable Invertebrate Ponds
	Ancient & Semi-natural Woodland
	Ancient Replanted Woodland

Non-statutory Designations

	Regionally Important and Geological and Geomorphological Sites (RIGS)
	Derbyshire Wildlife Trust Reserves
	Local Wildlife Sites (LWS)
	Potential Local Wildlife Sites (pLWS)
	Grade 3 Sites

Statutory Designations

	Sites of Special Scientific Interest (SSSI)
	Special Protection Area (SPA)
	Special Area of Conservation (SAC)
	National Nature Reserve (NNR)
	Local Nature Reserve (LNR)



Produced for NLG Ecology Ltd
by Derbyshire Biological Records Centre
March 2020
Taxal Edge



Derbyshire
Wildlife Trust