KINGSMEADOWS HOUSE, PEEBLES

Ecology Baseline Report

For

Granton Homes

November 2019

ITPENERGISED
Earth. Smart. Solutions

Quality Management

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Summary

ITPEnergised was appointed to undertake a Preliminary Ecological Appraisal (PEA), Preliminary Roost Assessment (PRA), otter and badger survey of an area of land to the north of Kingsmeadows Road east of Peebles.

The Site measures approximately 0.86 ha and comprises a large house, now split into residential flats, and grounds with associated car parking, paths and gardens. The majority of the vegetation within the Site comprises mature broadleaved woodland, with the remainder made up of closely cropped grassland. The River Tweed flows east past the north of the Site, Kingsmeadows Road runs past the south of the Site with residential building spreading further south. The gardens extend west of the Site boundary with industrial buildings and further woodland extending east of the Site.

A statutory nature conservation area, the River Tweed Special Area of Conservation (an international designation) and Site of Special Scientific Interest (a national designation), is present off the northern boundary and is the only international or national designation within 5km of the Site boundary. In terms of non-statutory designations, two areas of Ancient Woodland were identified within the 2km of the Site boundary; the nearest being Janet's Brae c. 400m from the Site.

In terms of protected species, no definitive evidence of badger was recorded. However, a multiple entrance shelter feature was recorded approximately 40m north of the Site which was noted as suitable for badger occupation. Further survey work is therefore recommended (if a 30m no-disturbance buffer cannot be maintained) to assess the possible use of this shelter feature by badger.

No evidence of otter activity was recorded. However, the River Tweed running 15m north of the site was noted as optimal foraging habitat for otter and suitable for the creation of shelter places. A pre-construction survey is therefore recommended for otter.

No suitable habitat was recorded for either water vole or great-crested newt, and habitats are considered suboptimal for these species. Nor was any evidence recorded of red squirrel, but much of the Site was noted to provide suitable habitat for this species.

25 trees and three structures within the Site boundary and a 30m buffer were found to contain potential bat roost features. Further survey work was therefore carried out to assess the use of these feature by bats.

A total of seven summer non-breeding roosts were identified within two of the buildings, with one roost recorded within the shed and six roosts within the Kingsmeadows House. The roosting bats recorded included common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle *(P. pygmaeus*), and unidentified bats. The highest number of bats utilising one roost was five. No roosting *Myotis* species bats or brown long-eared bats (*Plecotus auritus*) were recorded.

Tree No. 28 was subject to three activity surveys as is had been assessed as having high suitability for roosting bats. No bat roosts were identified within the tree during the survey programme. However, if felling of the tree is required, as a precaution it is recommended that works are carried out under the supervision of a licensed bat worker and felling should not take place during the peak hibernation period (December to February).

If the proposed works fall within 30m of the roosts, and there is likelihood of disturbance to the roosting bats, a European Protected Species (EPS) licence granted by Scottish Natural Heritage (SNH) and an accompanying Species Protection Plan will have to be in place prior to works commencing. Bat Activity and tree climbing surveys identified a total of seven bat roosts, six within the main house and one in a shed, all the roosts were small (less than 5 bats) and either common or soprano pipistrelle.

The woodland and wetland areas within the Site also provide suitable habitat for a number of bird species, such as nuthatch, grey wagtail and tawny owl. All site clearance and construction works should therefore be completed outside of the bird breeding season (April – August inclusive); alternatively, a Suitably Qualified Ecologist (SQE) should be employed to search the Site for evidence of nesting birds immediately prior to works.

No evidence of any invasive non-native species was recorded during the survey, although rhododendron listed as a Schedule9, invasive non-native species, in England but not Scotland was recorded in much of the north-west of the Site.

An Ecological Impact Assessment (EcIA) of the Proposed Development was undertaken for ecological features of above a certain value. A significant effect, in ecological terms, was defined as an effect (whether negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area, including cumulative and in-combination impacts, In accordance with the CIEEM (2018) guidelines.

Receptors taken forward for evaluation were: the River Tweed SAC; Semi-natural broadleaved woodland; otter; bats; and badger. It was concluded that assuming that mitigation measures outlined are implemented as described, no residual significant impacts are expected on any of ecological features at the site.

1 Introduction

1.1 Overview

1.1.1 ITPEnergised was appointed by Granton Homes Ltd to undertake an ecological desk study and ecological surveys, including an extended Phase 1 habitat survey, a Preliminary (bat) Roost Assessment (PRA), a badger (*Meles meles*) survey and an otter (*Lutra lutra*) survey of an area of land north of Kingsmeadows Road, Peebles (hereafter referred to as 'the Site'), located approximately 1 km south-east of Peebles town centre (central Ordnance Survey Grid Reference: NT 26039 39851).

1.1.2 The purpose of the extended Phase 1 habitat survey was to document the habitats present within the Site and a 50m survey buffer (collectively referred to as the 'Study Area') and determine the likely/potential presence of protected or otherwise notable species on the Site in addition to bats, badger and otter. The purpose of the PRA survey was to investigate structures and trees within the Site and wider 30m study area for evidence of bats (*Chiroptera* spp.) or potential roost features for bats. The purpose of the badger and otter survey was undertaken to examine all suitable habitat within the site and 50m / 250m respectively for the presence of badger and otter.

1.1.3 The survey results are intended to facilitate the identification of potential constraints to development of the Site, such that additional mitigation and/or further survey work would be required to inform a future planning application, as appropriate.

1.1.4 This report describes the methods used to gather and record habitat baseline information for the Site, summarises the findings of the desk study and provides details of the field investigation. Where appropriate, further recommendations are outlined, for example, a requirement for further species-specific surveys and/or habitat retention and enhancement strategies.

1.2 Site Description

1.2.1 The Site measures approximately 0.86 ha and comprises a large house, now comprising separate flats, and grounds with associated car parking, paths and gardens. The majority of the grounds within the Site consist of mature broadleaved woodland with the remainder made up of closely cropped grassland. The River Tweed flows east past the north of the Site, Kingsmeadows Road runs past the south of the Site with residential building spreading further south. The gardens extend west of the Site boundary with industrial buildings and further woodland extending east of the Site. The woodland area contains a number of footpaths which are well used by walkers and dog walkers.

1.3 Development Proposal

1.3.1 The surveys were undertaken to inform two (adjacent) future Planning Application's with respect to the potential for future development of the land for residential use.

2 Legislation, Policy and Guidelines

2.1 Legislation

Overview

2.1.1 Full consideration has been given to the relevant nature conservation legislation when carrying out this assessment. This includes the following:

- The Conservation of Wild Birds (the Birds Directive) 1979 (as amended);

- The Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) 1992 (92/43/3EEC);
- Wildlife and Countryside Act 1981 (as amended);
- The Protection of Badgers Act 1992 (as amended);
- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Nature Conservation (Scotland) Act 2004 (as amended), which places a statutory duty on all public bodies to further the conservation of biodiversity through the Scottish Biodiversity Strategy, with Scottish priority species and habitats listed on the Scottish Biodiversity List (SBL), itself based on the former UK Biodiversity Action Plan (UKBAP), and regional biodiversity targets defined through the Local Biodiversity Action Plan (LBAP); and
- Wildlife and Natural Environment (Scotland) Act 2011 (as amended).

Bats

2.1.2 All bat species within Scotland are fully protected, primarily through their status as 'European Protected Species' under the Conservation (Natural Habitat &c) Regulations 1994 (as amended), which transposes the Habitats Directive into domestic law. It is also protected under the Wildlife and Countryside Act 1981 (as amended) and The Nature Conservation (Scotland) Act 2004. It is an offence to intentionally and/or recklessly:

- Deliberately capture, injure or kill a wild bat;
- Harass a wild bat or group of bats;
- Disturb a wild bat in a roost (any structure or place it uses for shelter or protection);
- Disturb a wild bat while it is rearing or otherwise caring for its young (this would be a 'maternity' roost);
- Obstruct access to a bat roost or to otherwise deny the animal use of the roost;
- Disturb such a wild bat in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of that species; and
- To disturb a wild bat in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young; and possess, control, transport, exchange or sell a bat or parts of a bat, alive or dead.

Badger

2.1.1 Badgers are fully protected under the Protection of Badgers Act 1992, as amended by the Wildlife and Natural Environment (Scotland) Act 2011, which makes it an offence to:

- Take, injure or kill a badger;
- Possess or cruelly ill-treat a badger;
- Interfere with a badger sett;
- Sell and possess a live badger; and
- Mark and ring a badger.

2.1.2 Interfering with a badger sett includes:

- Damaging or destroying a sett or any part of it;
- Obstructing access to a sett;
- Disturbing a badger whilst it is in a sett; and

- Causing or allowing a dog to enter a badger sett.

2.1.3 Should such actions be undertaken, despite having no intention to do so, they would still be considered an offence.

2.1.4 The 1992 Protection of Badgers Act defines a badger sett as "any structure or place which displays signs indicating current use by a badger". A sett in an occupied territory is therefore classified as being in current use even if it is only used seasonally or occasionally by badgers, and it is afforded the same protection as an inhabited sett.

Otter

2.1.5 Within Scotland, otter is primarily protected as a European Protected Species by the Conservation (Natural Habitat &c) Regulations 1994 (as amended), which transposes the Habitats Directive into domestic law. Otter is also protected under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended) and receives protection under Section 9 of the Act. As such, it is an offence to deliberately or recklessly:

- Capture, injure or kill an otter;
- Harass an otter or group of otters;
- Disturb an otter in a holt or any other structure or place it uses for shelter or protection;
- Disturb an otter while it is rearing or otherwise caring for its young;
- Obstruct access to a holt or other structure or place otters use for shelter or protection, or otherwise deny the animal use of that place;
- Disturb an otter in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species; and
- Disturb an otter in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young.

2.1.6 It is also an offence to:

- Damage or destroy a breeding site or resting place of such an animal (whether or not deliberately or recklessly); and
- Keep, transport, sell or exchange, or offer for sale or exchange any wild otter (or any part or derivative of one) obtained after 10 June 1994.

2.1.7 It should be noted that otter shelters are legally protected whether an otter is present or not.

2.2 Policy Framework

Scottish and Regional Planning

2.2.1 The policies set out below are those relevant to nature conservation and include those from the Scottish Borders Local Development Plan (Scottish Borders Council, 2016). This section also considers the relevant aspects of Scottish Planning Policy (SPP), Planning Advice Notes (PAN) and other applicable guidance.

2.2.2 In respect to the above, regard has been made to the following policies, which are summarised below and described in full in Appendix A:

- Scottish Planning Policy (SPP) 2014 (Scottish Government, 2014);
- Planning Advice Note 60: Planning for Natural Heritage (Scottish Government, 2000);
- The South East Scotland Strategic Development Plan (SESplan, 2013); and

- Scottish Borders Local Development Plan (Scottish Borders Council, 2016).

Biodiversity Priorities

2.2.3 Scottish Ministers created the Scottish Biodiversity List (SBL) (Scottish Government, 2013) in 2005 to satisfy the requirements under Section 2(4) of the Nature Conservation (Scotland) Act 2004, assist public bodies in carrying out conservation of biodiversity, as well as to provide the general public with information regarding conservation within Scotland. The SBL comprises species and habitats listed using both scientific and social criteria. Only scientific criteria are considered relevant to this report. They include the following:

- All UK Priority Species present in Scotland;
- Species which Scotland has an international obligation to safeguard;
- All species defined as nationally rare at a GB or UK level that are present in Scotland;
- Species with populations present (resident, wintering or breeding) in five or fewer 10km squares or sites in Scotland;
- All species that are endemic to Scotland;
- Any sub-species or race that is widely recognised and accepted by the scientific (or other relevant) community and that is endemic to Scotland, if it also meets one of the other criteria; and
- Natural and semi-natural habitats that are known to be particularly important for supporting assemblages of plant or animal groups that are data deficient, such as fungi, bryophytes, lichens, algae and invertebrates.

2.2.4 At the time of its creation the SBL contained a total of 41 land-based habitat types, 19 marine habitats, 22 terrestrial mammal species, 104 species of birds, 303 invertebrate species, 12 freshwater fish, 244 vascular plants and 711 fungi species. These include bats and otter.

2.2.5 The Scottish Borders Local Biodiversity Action Plan (LBAP) (Scottish Borders Local Biodiversity Partnership, undated) aims to ensure the conservation, educated use and appropriate enhancement of biodiversity in the Scottish Borders through the development of an effective regional partnership; act as a framework for the process of biodiversity planning and measure and inform the sustainable development of the Scottish Borders.

2.2.6 The LBAP delivers biodiversity action within the Scottish Borders through its focus on nine broad habitats types and their associated species, those of relevance to the Site are:

- Sea and Shore;
- Coastal Braes and Deans;
- Rivers & Burns; and
- Towns and Villages.

2.3 Good Practice Ecological Guidance

2.3.1 As part of the PEA and PRA, cognisance has been taken of the following good practice guidelines/survey method publications:

- Chartered Institute of Ecology and Environmental Management (CIEEM) (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Marine;
- Chartered Institute of Ecology and Environmental Management (CIEEM) (2017). Guidelines for Preliminary Ecological Appraisals;

- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London;
- Joint Nature Conservation Committee (JNCC) (2010). Handbook for Phase 1 Habitat Survey - a technique for environmental audit. Revised re-print;
- Competencies for Species Survey: Badger (CIEEM, 2013a);
- Surveying for Badgers: Good Practice Guidelines (Scottish Badgers, 2018);
- Competencies for Species Survey: Otter (CIEEM, 2013b); and
- Monitoring the Otter *Lutra lutra* (Chanin, 2003).

3 Methods

3.1 Overview

3.1.1 This section describes the methods used for the surveys, which comprised a combination of desk study and field surveys.

3.2 Desk Study

3.2.1 In accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017), an ecological desk study was carried out using a range of publicly available information sources in order to provide an understanding of the ecological context of the Site and wider area.

3.2.2 In terms of nature conservation designations, the desk study identified international and national statutory designations, such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar wetlands, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) within 5km of the Site boundary. Any Local Nature Reserves (LNRs) as well as non-statutory designations, such as Local Wildlife Sites (LWS), Sites of Interest for Nature Conservation (SINCs) or woodland areas included on the Ancient Woodland Inventory (AWI), were identified within a 2km distance from the Site boundary.

3.2.3 The Wildlife Information Centre (TWIC) was approached for existing records of protected or otherwise notable species (e.g. SBL/LBAP priority species) from within a 2km distance of the Site boundary. Only records from within the last 10 years were considered relevant to the study.

3.2.4 Additional data sources included the following online databases:

- National Biodiversity Network Atlas;
- Scottish Natural Heritage (SNH) SiteLink;
- MAGIC: Nature on the Map; and
- SNH Ancient Woodland Inventory.

3.3 Field Surveys

Site Boundary

3.3.1 The site boundary and subsequent survey / species buffers used for the field surveys was an iterative site boundary which has since been updated and modified to the boundary as shown in figures 2-4. The full study areas used for each survey work is the original areas and as shown in the figure 2-4.

Extended Phase 1 Habitat Survey

3.3.2 An extended Phase 1 habitat survey of the Site and a 50 m buffer was undertaken on 19th June 2019 by a qualified and experienced ecologist following the JNCC survey methodology (JNCC, 2010) which is a standardised technique for classifying and mapping British habitats. Habitats greater than 0.1ha were mapped and classified based on the dominant plant species and their associates.

3.3.3 The vegetation was described in a series of georeferenced target notes (TNs), with plant nomenclature following Stace (2010). Target notes were also produced to describe notable habitats too small to be mapped.

3.3.4 The survey was 'extended' through the additional recording of evidence of protected or otherwise notable species, as well as habitats or features with the potential to support such species. Birds and other animals were identified and recorded on an *ad hoc* basis.

Preliminary Roost Assessment

3.3.5 A Preliminary (bat) Roost Assessment of all trees and structures within the Site and a 30m survey buffer was undertaken simultaneously with the extended Phase 1 habitat survey, using methods described in guidelines issued by the Bat Conservation Trust (BCT) (Collins, 2016).

3.3.6 Ground-level inspection of the trees involved searching for the presence of features which could be of value to roosting bats, such as splits, cracks, rot holes, coverings of ivy and peeling bark. The potential for the trees to support roosting bats was ranked in accordance with the criteria set out in the BCT guidelines. Ground level classification was conducted when the visibility of tree features that have bat roosting potential and the surrounding habitat could be confidently assessed. Due to the relatively early stage of the growing season, there was little leaf cover on the trees, so good visibility was available for all trees surveyed.

3.3.7 An external examination of the buildings within the Study Area was also undertaken, to search for the presence of features which could be of potential value to roosting bats, such as gaps in construction materials and access points to internal spaces, such as loft voids, and to search for any signs of use such as droppings, staining, etc., in accordance with the BCT guidelines.

3.3.8 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features, are given below:

- Negligible – Negligible habitat features on site, not suitable for roosting bats.
- Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). Could also be a tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
- Moderate – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat bat unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
- High – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Badger Survey

3.3.9 As part of the survey, field signs including setts, day beds, badger faeces in dung pits, evidence of foraging, badger paths, scratching posts, hair and footprints were actively searched for. The survey was based on the methods described by Scottish Badgers (2018). The survey included all hedgerows, field boundaries, watercourses, paths and other linear features within the Site and 50m buffer.

3.3.10 On identification of a badger sett, the observer noted the number of entrances, in addition to a description of the activity level and status of the sett. The status of a sett was evaluated and determined based on descriptions presented in Scottish Badgers good practice guidelines (2018), which assigns setts into one of four categories:

- Main sett (used throughout the year and constitutes the main breeding sett);
- Annexe sett (forms part of the main sett area, but is not directly linked by an underground passage to the main sett either due to a barrier (e.g. separated by a watercourse or ditch) or by distance);
- Subsidiary sett (offers an alternative large sett complex to the main sett, but is usually although not always at least 50m away and is not always obviously linked by a well-used path); and
- Outlier sett (often comprising just one or two holes and is infrequently used by badgers).

3.3.11 Any sett entrance would be classified according to its degree of usage:

- Well-used: is clear of vegetation and debris, sides worn smooth, but not necessarily excavated recently;
- Partially used: not in regular use and has debris in the entrance; and
- Disused: not in use for some time, is partially blocked and could not be used without considerable effort.

3.3.12 It should be noted that the status of a badger sett can change over a relatively short period of time. For example, some badger social groups will move the location of the main sett to other less used setts within their territory in response to external factors, such as disturbance.

Otter Survey

3.3.13 A thorough search was undertaken of the riparian zone and up to 20m away from the water's edge (where suitable habitat was found to be present). Throughout the survey, overhanging banks, cavities, bankside vegetation and riparian features, such as boulders and mud, were searched for the following signs of otter use:

- Spraints – otter dung, which is used for marking territories, is often located on prominent features within the channel or on the bank (including weirs, bridges, rocks, tree roots, confluence of watercourses, etc.); and
- Footprints – located in soft mud, silt or sand banks.

3.3.14 Other potential evidence of otter presence was also searched for in the survey. The following signs, when interpreted in conjunction with spraints and footprints, can provide data to support an assessment of otter activity on a site. They cannot, however, be used in isolation to definitively indicate otter presence/absence:

- Resting-up places – comprising couches (areas of flattened vegetation) or hovers (lay-up areas, including ledges under rocks or hollows under fallen trees or roots).
- Potential holt sites – holes or dens;
- Runs and trails – pathways from the water into dense cover or around bankside trees;

- Slides – down banks as an entry to waterbodies; and
- Feeding remains – e.g. remains of fish and amphibians.

Survey Limitations

3.3.15 The extended Phase 1 habitat survey was undertaken within the optimal survey season from April to September, inclusive, and conditions were suitable for survey. Sections to the south of Kingsmeadows Road comprise private housing / private land and as such no access was taken in these areas; however, this is considered unlikely to significantly affect the conclusions within this report. Overall, therefore, no significant limitations to the survey were identified.

3.3.16 Due to the timing of the PRA survey in June, the trees were fully foliated, and it is possible some bat roost features were overlooked during the survey as they were obscured from view. Bats do not always leave visible signs on the outside of roosting locations and, if present, these signs can often be removed through adverse weather conditions. Therefore, the absence of bat evidence does not necessarily equate to the absence of roosting bats. Due to the limitations of what is known about the ecology of tree-roosting bats, it is arguable that all trees with bat roosting potential should be considered part of a resource that will be used at one time or another by tree roosting bats in order to determine the extent of impacts. Survey work on individual trees may confirm presence but is unlikely to conclusively confirm absence. Precautionary measures are likely to still be required during works even where surveys have not identified occupancy.

3.3.17 Sections of the woodland floor were heavily vegetated, covered in tall ruderal species such as common nettle, rosebay willowherb and common hogweed and areas covered in rhododendron (*Rhododendron ponticum*) and, as such, it is possible that evidence of badger activity was under recorded. Nevertheless, given that surrounding areas could be accessed, the likelihood that any significant evidence of badger has been missed is considered low.

3.3.18 Sections of the banks of the River Tweed dropped steeply into the water and as such were inaccessible, meaning it is possible that evidence of otter activity was under recorded in these areas. However, this is not considered likely to significantly affect the conclusions in this report.

4 Baseline

4.1 Desk Study

Nature Conservation Designations

4.1.1 A single statutory designated area of international and national importance occurs within 5km of the Site; the River Tweed SAC and SSSI runs west to east directly north of the Site (see Figure 1).

4.1.2 The River Tweed SAC is designated for the notable presence of an Annex 1 habitat in the north-eastern part of its range: It is the most species-rich example, by far, of a river with *Ranunculus* in Scotland, and is the only site selected for this habitat in Scotland. The river has a high ecological diversity which reflects the mixed geology of the catchment. Stream water-crowfoot (*Ranunculus penicillatus* ssp. *Pseudofluitans*), a species of southern rivers and streams, here occurs at its most northerly location as does fan-leaved water-crowfoot (*Ranunculus circinatus*), along with river water-crowfoot (*Ranunculus fluitans*), common water-crowfoot (*Ranunculus aquatilis*), pond water-crowfoot (*Ranunculus peltatus*) and a range of hybrids. The Tweed is also the most northerly site for flowering-rush (*Butomus umbellatus*).

4.1.3 The SAC is further designated for its population of Atlantic salmon (*Salmo salar*), otter, sea lamprey (*Petromyzon marinus*), brook lamprey (*Lampetra planeri*) and river lamprey (*Lampetra fluviatilis*).

4.1.4 The SSSI is designated for the same features as the SAC, but is also designated for beetle and fly assemblages

4.1.5 Two areas of Ancient Woodland were identified within the 2km desk study search area (Figure 1 and Table 1, below), the nearest being 400m from the Site.

Table 1 – Ancient Woodland within 2km of the Site

Woodland Name	Woodland Type	Grid Reference	Distance from Site	Size (Ha)
Janet's Brae	2b Long-established (of plantation origin)	NT265402	0.4 km NE	11.9
Unknown	2b Long-established (of plantation origin)	NT274390	1.3 km SE	5.3

Invasive Plant Species (listed on Schedule 9 WCA Scotland)

4.1.6 Records of the following non-native, invasive species records have been identified within 2km of the Site:

- Few-flowered leek (*Allium paradoxum*);
- Japanese knotweed (*Fallopia japonica*); and
- Himalayan balsam (*Impatiens glanduliferia*).

Terrestrial Animals

4.1.7 Records of the following thirteen animal species of conservation interest have been identified within 2km of the Site:

- Western European hedgehog (*Erinaceus europaeus*);
- Badger (*Meles meles*);
- Brown hare (*Lepus europaeus*);
- Otter (*Lutra lutra*);
- Brown long-eared bat (*Plecotus auritus*);
- Daubenton's bat (*Myotis daubentonii*);
- Common pipistrelle (*Pipistrellus pipistrellus*);
- Soprano pipistrelle (*Pipistrellus pygmaeus*);
- Whiskered/Brandt's Bat (*Myotis mystacinus/brandtii*);
- Natterer's bat (*Myotis nattereri*);
- Red squirrel (*Sciurus vulgaris*);
- Palmate newt (*Lissotriton helveticus*); and
- Common frog (*Rana temporaria*).

4.1.8 All native species of bats and otter are fully protected by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Badger is protected under the Protection of Badger Act 1992. Red squirrel is protected under schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Palmate newt and common frog are offered limited protection under the Wildlife and Countryside Act 1981 (as amended).

4.1.9 All wild species of bats, otter, brown hare, red squirrel and hedgehog are SBL priority species. Common frog, red squirrel, brown hare, otter and brown long-eared bat are all Borders Council LBAP species.

Birds

4.1.10 A total of 92 records of breeding, migratory and over-wintering bird species were identified in the desk study and, of these, 12 species, such as kingfisher (*Alcedo atthis*) and hen harrier (*Circus cyaneus*) are listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and of the 13, six are also listed under Annex 1 of the Birds Directive. A further species, barnacle goose (*Branta leucopsis*) is listed under Annex 1 of the Birds Directive only (Table 2).

4.1.11 Of the bird species identified in the desk study, 23 of these are included within the Red List of Conservation Concern (Eaton *et al*., 2015) and include: herring gull (*Larus argentatus*); house sparrow (*Passer domesticus*), grey wagtail (*Motacilla cinerea*), yellowhammer (*Emberiza citrinella*), starling (*Sturnus vulgaris*), song thrush (*Turdus philomelos*) and mistle thrush (*Turdus viscivorus*). A further 26 birds recorded within the search area were identified as Amber Listed species.

Table 2 – Desk Study results (BD Annex 1,WCA Schedule 1, SBL, BoCC Species)

Common Name	Scientific Name	Annex 1	Sch 1	SBL	BoCC
Barn Owl	*Tyto alba*		X	X	
Barnacle Goose	*Branta leucopsis*	X		X	Amber
Black-headed gull	*Chroicocephalus ridibundus*			X	Amber
Blue Tit	*Cyanistes caeruleus*				
Brambling	*Fringilla montifringilla*		X	X	
Bullfinch	*Pyrrhula pyrrhula*			X	Amber
Buzzard	*Buteo buteo*				
Coal Tit	*Periparus ater*				
Greater Canada Goose	*Branta canadensis*				
Lesser Redpoll	*Acanthis cabaret*			X	Red
Common Gull	*Larus canus*				Amber
Common sandpiper	*Actitis hypoleucos*				Amber
Common Scoter	*Melanitta nigra*		X	X	Red
Coot	*Fulica atra*				
Cormorant	*Phalacrocorax carbo*				
Crossbill	*Loxia curvirostra*		X		
Curlew	*Numenius arquata*			X	Red
Greater Sand Plover	*Charadrius leschenaultii*				
Dunnock	*Prunella modularis*			X	Amber
Fulmar	*Fulmarus glacialis*				Amber
Firecrest	*Regulus ignicapilla*		X		
Goldcrest	*Regulus regulus*				
Goldfinch	*Carduelis carduelis*				
Goosander	*Mergus merganser*				
Goshawk	*Accipiter gentilis*		X		
Great Spotted Woodpecker	*Dendrocopos major*				
Great Tit	*Parus major*				
Green Woodpecker	*Picus viridis*			0	Green
Greenfinch	*Carduelis chloris*			0	0
Grasshopper warbler	*Locustella naevia*			X	Red
Grey Wagtail	*Motacilla cinerea*				Red
Greylag Goose	*Anser anser*				Amber
Hen Harrier	*Circus cyaneus*	X	X	X	Red
Herring Gull	*Larus argentatus*			X	Red

House Martin	*Delichon urbicum*				Amber
House Sparrow	*Passer domesticus*			X	Red
Jack Snipe	*Lymnocryptes minimus*				
Kestrel	*Falco tinnunculus*			X	Amber
Kingfisher	*Alcedo atthis*	X	X	X	Amber
Lapwing	*Vanellus vanellus*			X	Red
Long-tailed Duck	*Clangula hyemalis*		X		Red
Linnet	*Linaria cannabina*			X	Red
Little Grebe	*Tachybaptus ruficollis*				
Little Owl	*Athene noctua*				
Mallard	*Anas platyrhynchos*				Amber
Manx Shearwater	*Puffinus puffinus*			X	Amber
Meadow Pipit	*Anthus pratensis*				Amber
Mistle Thrush	*Turdus viscivorus*				Red
Moorhen	*Gallinula chloropus*				
Mute swan	*Cygnus olor*				Amber
Nuthatch	*Sitta europaea*				
Osprey	*Pandion haliaetus*	X	X	X	Amber
Oystercatcher	*Haematopus ostralegus*				Amber
Peregrine	*Falco peregrinus*	X	X	X	
Pink-footed Goose	*Anser brachyrhynchus*				Amber
Pied Wagtail	*Motacilla alba*				
Raven	*Corvus corax*				
Red Grouse	*Lagopus lagopus*				
Red Kite	*Milvus milvus*	X	X	X	
Redshank	*Tringa totanus*				Amber
Redstart	*Phoenicurus phoenicurus*				Amber
Reed Warbler	*Acrocephalus scirpaceus*			X	0
Reed Bunting	*Emberiza schoeniclus*			X	Amber
Robin	*Erithacus rubecula*				
Sand Martin	*Riparia riparia*				
Sedge Warbler	*Acrocephalus schoenobaenus*				
Skylark	*Alauda arvensis*			X	Red
Siskin	*Spinus spinus*			X	0
Sand Martin	*Riparia riparia*				
Song Thrush	*Turdus philomelos*			X	Red
Sparrowhawk	*Accipiter nisus*				
Spotted Flycatcher	*Muscicapa striata*			X	Red
Starling	*Sturnus vulgaris*			X	Red
Stock Dove	*Columba oenas*				Amber
Swallow	*Hirundo rustica*				
Stonechat	*Saxicola rubicola*				
Swift	*Apus apus*			X	Amber
Tawny Owl	*Strix aluco*				Amber
Teal	*Anas crecca*				Amber
Tree Pipit	*Anthus trivialis*			X	Red
Tree sparrow	*Passer montanus*			X	Red
Treecreeper	*Certhia familiaris*				
Twite	*Linaria flavirostris*			X	Red
Waxwing	*Bombycilla garrulus*				
Whinchat	*Saxicola rubetra*				Red
Whooper swan	*Cygnus cygnus*	X	X	X	Amber
Woodcock	*Scolopax rusticola*			X	Red
Willow Tit	*Poecile montana*			X	Red
Willow Warbler	*Phylloscopus trochilus*				Amber

Wren	*Troglodytes troglodytes*				
Yellowhammer	*Emberiza citrinella*			X	Red

4.1.12 It should be noted that all actively breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended).

4.2 Field Surveys

Phase 1 Habitat Survey

Habitats

4.2.1 The results of the Phase 1 Habitat survey are presented below and shown in Figure 1, which illustrates the location and extent of all habitat types recorded within the Site boundary. As outlined in the methods section, notable features too small to map are described using target notes (TNs); these have been referred to in the descriptions below and are presented in Appendix B. Species scientific names are provided in Appendix D. The following ten dominant habitat types were recorded within the Site and wider Study Area and are discussed in detail below:

- Semi-natural Broadleaved Woodland (A1.1.1);
- Broadleaved Plantation Woodland (A1.1.2);
- Improved Grassland (B4);
- Running Water (G2);
- Amenity Grassland (J1.2);
- Intact Species-poor Hedgerow (J2.1.2);
- Wall (J2.5);
- Dry Ditch (J2.6);
- Buildings (J3.5); and
- Other (Private houses and Gardens / Hard Standing (J5)).

<u>Semi-natural Broadleaved Woodland (A1.1.1)</u>

4.2.2 Much of the Study Area comprises mature semi-natural broadleaved woodland (Figure 1: TN1, TN7, TN14). Mature beech, Pedunculate oak, sycamore, lime and silver birch were noted as the dominant trees species with Norway spruce, Scots pine and hawthorn also recorded. It is likely that although much of the woodland is semi-natural additional planting of species such as lime and beech occurred in the woodland around the time of building of the large house, approximately 200 years ago. The understory was dominated by rhododendron within the west and north-west of the Site, with a very sparse ground flora at those locations. Elsewhere the ground flora was dominated by greater woodrush and dog's mercury along the River Tweed. Areas dominated by leaf litter were present in the centre of the Site, with common nettle, bramble, rosebay willowherb and common hogweed dominating the ground flora in the south of the Site.

<u>Broadleaved Plantation Woodland (A1.1.2)</u>

4.2.3 A section of broadleaved plantation woodland was recorded in the east of the 50m survey buffer (TN10). The woodland contained immature trees with silver birch, beech and ash recorded as the dominant tree species. A few mature sycamore and oak trees were recorded in the very south of the section. The ground flora was overgrown with tall ruderal species such as common nettle and cleavers, with bramble, herb Robert and wood avens also frequently recorded.

Improved Grassland (B4)

4.2.4 A small section of improved grassland was recorded north of the River Tweed (TN2). The field was closely cropped and used for grazing cattle. No access was taken and as such no species identification was possible, however is likely seeded for example with perennial ryegrass.

Running Water (G2)

4.2.5 The River Tweed flows east through the north of the Study Area (TN3). The river was approximately 20m wide, fast flowing and with clear water. There was little vegetation growing within the river except along the edges where evidence of flooding was also noted up the river banks. The river banks were man made and steep sided, although covered in dense vegetation in sections with soft-rush, common nettle, red campion, meadowsweet and creeping buttercup all frequently noted.

Amenity Grassland (J1.2)

4.2.6 Amenity grassland was recorded north and south of Kingsmeadows House (TN4 and TN6). The grassland south of the house also contained four large oak trees close to the area of mature woodland. In addition, a small section of amenity grassland was recorded along the roads in the southern part of the Study Area (TN15).

Intact Species-poor Hedgerow (J2.1.2)

4.2.7 A section of Cyprus hedgerow borders amenity grass and a tennis court (TN8) within the Site (TN17).

Wall (J2.5)

4.2.8 A stone wall makes up the southern perimeter of the Site, bordering Kingsmeadows Road (TN12).

Dry Ditch (J2.6)

4.2.9 A dry ditch runs along the eastern perimeter of the Site, steep sided and covered in leaf litter (TN9).

Buildings (J3.6)

4.2.10 A large house, Kingsmeadows House (TN5), is located in the north-west of the Site, currently used as flats. The house has associated car parking and hard standing and lawns to the west and east, respectively. A ruined stone building, possibly an old church (TN18), was recorded in the north-west of the Study Area. A large industrial building was recorded in the south-east of the Study Area (TN11).

Buildings and Hard Standing (J5)

4.2.11 Private housing and their associated gardens were recorded in the south of the 50m survey buffer (TN38). Kingsmeadows road follows the southern perimeter of the Site.

Invasive Non-native Species

4.2.12 No evidence of invasive non-native plant species was recorded within the Study Area, although it is worth noting that large areas of the woodland understory was covered in rhododendron.

Animals

Protected mammals (other than Bats, Badger and Otter – see below)

4.2.13 Although no direct evidence was recorded of red squirrel, the habitat within the Study Area looked optimal for squirrel occupation. Anecdotal evidence from residents outlined recent sightings of both red and grey squirrel, although no evidence, such as eaten pine cones or sightings of animals, were noted during the survey.

4.2.14 No suitable habitat for water vole was recorded during the survey.

Reptiles

4.2.15 No evidence of reptiles was recorded during the survey although some of the fringe habitats around the woodland may be suitable for reptile species such as common lizard (*Zootoca vivipara*).

Birds

4.2.16 Observations of bird species, both within the Site and wider study area, were recorded during the walkover survey. A total of 22 woodland and lowland species of bird were recorded, including siskin, oystercatcher, swallow, goldfinch, black-headed gull, nuthatch, mallard, great-spotted woodpecker, grey wagtail, wren, grey heron, chaffinch, dipper, pheasant, blackcap, wood pigeon, blackbird, blue tit, dunnock, tawny owl, carrion crow, chiffchaff and great tit.

Other Species

4.2.17 Evidence of roe deer, fox and rabbit activity was recorded during the survey No suitable habitat for great crested newt was recorded during the survey.

Bats - Preliminary Roost Assessment

4.2.18 No physical bat sightings or confirmed roosts were identified within the Site or a 30m survey buffer during the PRA.

4.2.19 A number of habitats recorded in the Site and wider study area were noted as providing suitable roosting, foraging and commuting habitat for bats; these included:

- Woodland and Tree lines;
- Built structures;
- Hedgerows; and
- Watercourse.

4.2.20 A total of 25 trees and three structures were recorded with features of potential to support roosting bats and are listed in Table 3, below, with their locations displayed in Figure 3. Five of the trees and structures recorded were within the Site with the 18 being within the original 30m survey buffer. As mentioned above the site boundary has since been modified however the extra area to west was open grass and would not have contained further bat roost features.

Table 3 - PRA Results

ID/Tag No	Species/ Structure	Grid Reference		Description	Category	Safe to Climb
		X	Y			
1	House	325980	639935	Kingsmeadows House – tiled roof, generally in good comdition, but there are gaps under eaves in SE corner, and a few loose tiles	High (H)	n/a
2	Shed	326018	639902	Small garden shed with tiled roof and attic space – some attic space and possible gaps under tiles	Low (L)	n/a
3 3164/4712	Oak	325995	639844	Mature oak – knot hole split beam N side – 10m	Moderate (M)	Yes
4 3165/4716	Oak	326010	639847	Mature oak – small knot hole 12m N	M	Yes
5 3169	Oak	326019	639841	Split dead branch – maybe hollow @ 10-12m SE side	L	Possibly safe but needs inspection
6 1702/4741	Oak	326043	639785	Oak on pathside – knothole – 16m –SE – just below trunk split.	M	Yes

				– knothole – 25m –SE – smaller trunk.		
7 1714	Sycamore	326087	639751	Tree by road – lifting bark 2-5m NW/SW side of trunk.	L	Ladders / Climbable
8 1726/4821	Oak	326130	639757	Mature tree by fence - Knothole, 15m – s facing (at trunk split) -Small hole in trunk, 1.5m – N facing -Woodpecker hole, 25m, w facing trunk	H	Yes
9 1753/4751	Birch	326080	639772	Lifting bark 0-8m W facing	L	No
10 1701/1767	Beech	326038	639802	Caving in top of N/NW trunk (thinner trunk) – 7/8m	L	Yes
11 1682/3153	Spruce	326027	639828	Mature spruce – hollows / cavities / lifting bark 0-1.5m E & N facing	L	Endoscope
12 1683/3151	Beech	326032	639824	Hollow dead branch, west side of main trunk 8-10m	L	Yes
13	Sycamore	326136	639764	No tag. Sloping tree over site fence. Holes in trunk, W facing 1-4m	L	Ladders / Endoscope
14 1738/4839	Beech	326127	639758	Split beam of south trunk, SE facing hole on branch on NW side of tree – 10-12m	L	Yes
15 1773/4846	Oak	326125	639794	Knot hole – E side 1m	M	Endoscope
16 1684/4726	Oak	326036	639828	Dead branch – W facing – split /holes 8-15m	L	Yes
17 1679/4716	Beech	326031	639844	Hollows / holes in trunk 0-1m	L	Endoscope
18 1790/4909	Beech	326132	639827	SE trunk hollow – 6-25m SE facing	M	Yes
19 1795	Oak	326137	639827	Hollow in trunk / hole round knot hole – 20m NE facing	M	Yes
20 1804/4917	Sycamore	326140	639860	Large hollow NW facing main trunk – 12m Hollow branch N side 4m (holes at end)	M	Yes
21	Ruin	326155	639880	No roof but walls 60m thick with holes which may be suitable	L	n/a
22 1847/4974	Beech	326128	639892	Knot holes – S facing – 2.5m and 5m W facing – 2m	M/H	Yes
23 1845/4985	Beech	326112	639892	2 knot holes at 12-14m E and N side	M	Yes?
24 1835/4990	Beech	326085	639891	Knot holes – W facing main trunk – 8m	M	Yes
25 1827/3009	Beech	326055	639898	Split trunk – 8-20m SE facing	M	Yes
26 1824/3139	Beech	326049	639902	Woodpecker hole – 12m E facing (woodpecker alarm calling close by so may be occupied)	None if occupied, M if not	Yes
27 1873/1873	Beech	326073	639927	-knot hole 4m Sw facing - knot hole 6m S facing - Hollow branch N side – nearest river – 6m - large knot hole – 6m – E facing - Small cavity – 2m – N facing	H	Yes
28 1893	Beech	326072	639914	Dead tree – large cavity, know holes, woodpecker holers – 12-18m N facing Large cavity – 8m W	H	No

Bat Activity Surveys

4.2.21 Since the completion of this report a series of bat activity surveys have been undertaken by special bat workers. The surveys included a combination of tree climbing and activity surveys of structures and trees which were not suitable to climb. All the surveys were carried out in August and September.

4.2.22 A total of seven summer non-breeding roosts were identified within two of the buildings, with one roost recorded within the shed and six roosts within the Kingsmeadows House. The roosting bats recorded included common pipistrelle, soprano pipistrelle, and unidentified bats. The highest number of bats utilising one roost was five. No roosting *Myotis* species bats or roosting brown long-eared bats were recorded.

4.2.23 A total 20 trees that were aerially inspected, two were assessed as having high roost suitability, four as moderate, and five as low. Nine trees had negligible features that were deemed unsuitable to be used by roosting bats. All the trees with high and moderate suitability had features that could not be fully inspected, and thus require activity surveys. No evidence of bats or their roosts were found during the aerial assessment. All of the trees that were assessed as having moderate and high roost suitability also have winter roost potential.

4.2.24 The full methods, results and discussions from these surveys are outlined in a Bat Survey Report included in Appendix G.

Badger

4.2.25 Much of the Study Area comprises mature broadleaved woodland which represents optimal habitat for badger. A multiple entrance (5/6 holes) shelter feature was recorded in the survey buffer which is described fully in confidential Figure 4 and confidential Appendix C: TN1. The holes had the dimensions typical of badger sett entrances and were flat-bottomed with large spoil heaps which although typical of badger can also the result of rabbit or fox activity given the loose soil present in the bank. However, no definitive evidence of badger was recorded, such as guard hairs, latrines or bedding. In addition, rabbit droppings were found within the spoil of two holes, and one entrance smelled strongly of fox occupation.

4.2.26 The woodland floor close to the shelter feature was covered in digging and snuffles holes (TN2 & TN3) and mammal paths which could be the result of badger activity, although this could also be down to the presence of rabbits, roe deer and dogs within the Study Area. Rabbit holes and a further fox den (TN4) were additionally recorded in the Study Area.

Otter

4.2.27 No evidence of otter activity was recorded during the survey. The River Tweed on this section was recorded as providing suitable foraging habitat for otter. However, the section of river within the survey area contained few suitable sprainting sites, such as prominent rocks. The majority of the river bank within the survey area was man made, comprising rocks in some sections, and there was evidence of considerably fluctuating water levels, with debris noted up to 2m higher than the water level at time of survey. This suggests that the habitat is sub-optimal for the creation of holts. A number of trees along the river edge were assessed as being suitable as temporary otter resting places, such as hovers, but no evidence of otter activity was recorded in these locations.

4.3 Biodiversity Enhancements

4.3.1 Due to the nature of the proposed residential end use of the Site, parts of the Site could be made available for biodiversity enhancement through habitat creation and management.

Boundary Features

4.3.2 It is additionally recommended, where practicable, that a gap of approximately 30 cm could be left at the bottom of boundary fencing to allow the passage of small mammals, such as hedgehog.

Landscape Planting

4.3.3 A native, non-invasive plant schedule should be developed as part of a future master plan for the Site. Native planting throughout the development can be beneficial and often improve the biodiversity of

an area by encouraging many nectivorous invertebrates (e.g. butterflies, moths and bumblebees) and provide shelter and food for larvae, adult insects and flying insects, which in turn, may encourage small mammals, bats and birds into the Site. Species which encourage nocturnal insects (such as honeysuckle) can also be valuable for bats and by incorporating native, edible fruit and berry baring plant species this will encourage further use of the Site by birds, small mammals, badger and invertebrates.

4.3.4 Street trees and hedges can also be valuable to birds, bats and other mammals within an urban setting by providing, not only further foraging opportunities but can also be a buffer from artificial light and often connects important features and habitats.

Protection of Existing Habitats

4.3.5 It is recognised that a future housing development within the Site and the resulting permanent land-use change may have the potential to negatively affect the habitats within the site and adjacent woodland areas. In order to reduce the magnitude of this effect, the following measures are recommended:

- Installation of temporary barriers to limit disturbance and accidental damage to woodland and edge habitats which will be retained during construction;
- Implementation and adherence to BS 5837:2012 (Trees in relation to Design, Demolition and Construction); and
- Installation or retention of permanent boundary features (such as hedgerows) between the final development and any retained woodland edge to ensure reduced levels of human disturbance.

4.3.6 Linear features are often used for foraging and commuting purposes by bats and other mammals such as badger and deer and can be important connective corridors to habitats within the wider area. As such, linear features such as hedgerows, woodlands and watercourses should be maintained and kept as dark as possible during the night. The impact on these mammal species can be minimised by the use of sensitively placed and directional lighting, which is considered further below.

Use of Appropriate Lighting

4.3.7 Artificial lighting can often impact the foraging and commuting behaviour of nocturnal mammals such as bats and badgers. As a consequence, it is advised that lighting should be directed to where it is needed and light spillage (whether direct and/or in-direct) should be avoided, particularly within the vicinity of the woodland to the east and any proposed biodiversity planting or commuting features (e.g. stone wall). The times during which the lighting is on should be limited to provide some dark periods. Roads or track ways in areas important for foraging bats should contain stretches left unlit to avoid isolation of bat colonies. These unlit stretches should be ten metres in length either side of a commuting route.

5 Ecological Impact Assessment

5.1 Introduction

5.1.1 An Ecological Impact Assessment (EcIA) of the Proposed Development is undertaken for ecological features of above a certain value.

5.1.2 A significant effect, in ecological terms, is defined as an effect (whether negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area, including cumulative and in-combination impacts.

5.1.3 In accordance with the CIEEM (2018) guidelines, the approach adopted in this section aims to determine if the effect of an impact is significant or not based on a discussion of the factors that characterise it, i.e. the ecological significance of an effect is not dependent on the value of the feature in question. Rather, the value of a feature that will be significantly affected is used to determine the geographical scale at which the effect is significant.

5.1.4 In accordance with the current CIEEM guidelines, effects of impacts are assessed in the presence of standard mitigation measures. Additional mitigation may be identified where it is required to reduce a significant effect.

5.1.5 Any significant effect remaining post-mitigation (the residual effect), together with an assessment of the likelihood of success of the mitigation, are the factors to be considered against legislation, policy and development control in determining the application.

5.1.6 In addition to determining the significance of impacts on valued ecological features, this chapter also identifies any legal requirements in relation to wildlife.

Ecological Features included in the Assessment

5.1.7 Table 4 provides a summary of the ecological features relevant to the Kingsmeadows House development following the ecological baseline described above in section 4. Ecological features of local and higher value are considered Important Ecological Features (IEFs).

Table 4 - Ecological features brought forward for assessment

Feature	Summary	Value
River Tweed SAC	The value of a statutory designation corresponds to its level of designation.	International
Semi-natural broadleaved woodland	Approximately 50% of this Site is mature semi-natural woodland and although not designated as Ancient Woodland is assessed as being of high ecological value because of its veteran trees and because it provides habitat for species, such as bats, badgers and breeding birds, although is degraded in sections by dense rhododendron cover. Semi-natural broadleaved woodland is listed as an SBL priority habitat and both native woodland and veteran trees outlined as special features in the Borders LBAP. Given the presence of similar habitat in the wider, local area and the rhododedron which reduced the quality of the woodland within the Site, the habitat is assessed as having Local ecological value.	Local
Otter	Although no evidence of otter was recorded during the otter survey, the River Tweed provides suitable habitat for otter, although the river bank in close proximity to the Site is man-made and generally made of stone, which makes it	Local

Feature	Summary	Value
	unsuitable for holt building. The River Tweed is also designated as an SAC in part for otter. Given the likely presence of individual otters in close proximity to the Site, but the absence of holts, the Site is considered to be of Local ecological value for this EPS, SBL and Borders LBAP priority species.	
Bats	All bat species are protected as European Protected Species (EPS) and are also SBL priority species. Brown long-eared bat, which was possibly recorded during the activity surveys but not roosting at the Site, is a Borders LBAP priority species. A total of six small (<5 bats) non-breeding bat roosts were recorded within Kingsmeadows House, and a further small non-breeding roost in the small shed in direct proximity to the main house. Species included common and soporano pipistrelle and unidentified bats. A number of potential roost features for bats were also noted in trees within the Site and although no roosts were found in these trees, such trees may be part of a wider resource that bats can use in the future. Overall, the site as a whole was assessed as being of high value for bats. The presence of small number of roosting pipistrelle bats and high value roositng habitat, the Site is assessed of being of Local ecological value.	Local
Badger	Possible sett recorded between 75m east of the Site. The woodland habitat within the Site were assessed as being optimal badger foraging and sett building habitat. With a 30m exclusion place in place around the possible shelter feature impacts on badger will be limited to loss of habitat. The potential presence of badger at the Site is thought to improve the biodiversity of the local area and therefore badger are assessed having Local ecological value.	Local
Breeding birds	The loss of woodland habitat will mean the loss of breeding and foraging habitat for a range of woodland birds. The presence of woodland birds improves the biodiversity of the local area however the species present are likely to be common and widespread species and therefore breeding birds are assessed as having Less than local ecological value.	Less than local

5.2 Potential Effects – Kingsmeadows House Extension

Description of the Proposed Development

5.2.1 The Proposed Development is shown on the masterplan (see Figure 5) and comprises the following main elements:

- the existing Kingsmeadows House will be extended to the east;
- track infrastructure and communal parking; and
- new road and entrance to Kingsmeadows Road to the south.

Standard Mitigation Measures

5.2.2 The ecological impact assessment has been undertaken with the assumption that standard mitigation measures will be applied to the project, as follows:

- All construction works will be required to accord with an Construction Environmental Management Plan (CEMP). The construction works will require a Construction and

Environmental Method Statement (CMS) to be prepared post-determination and in advance of the commencement of works; and

- Pollution Prevention Guidelines (PPGs) and Guidelines for Pollution Prevention (GPPs) will be followed during all site clearance and construction works.

Construction Phase Effects

Summary of Construction Impacts

5.2.3 The Proposed Development preparation and construction phase will result in habitat loss, due to the construction of track infrastructure and the footprint of the new structures.

5.2.4 Habitat directly beneath the development footprint will be permanently lost. Temporary construction/laydown areas will utilise existing hardstanding. Habitat damage associated with construction will be temporary.

5.2.5 Reinstatement will be undertaken as soon as practicable after the project is completed. Areas of the site will be reinstated to agreed conditions. Verges of tracks will be re-graded with topsoil (stored adjacent to each excavation) and then left to re-generate as appropriate. Any imported aggregate will be checked to ensure that it is inert in relation to its use in order to preclude any potential adverse effects on the local hydrology and/or ecology.

Assessment of Effects

River Tweed SAC

5.2.6 Site works will remain over 30m from the River Tweed SAC, and with a fully enforced CEMP the potential to impact on this feature of international value is considered to be low and not significant.

Semi-natural broadleaved woodland

5.2.7 There will be direct loss of semi-natural broadleaved woodland with a total of 0.08 (plus 0.06 for the access road) hectares and 36 trees or bushes lost to the footprint of the scheme. The section of woodland within the Site extends along the River Tweed in both directions for approximately 500m and also continues south of the Site on the opposite side of Kingsmeadows road. Given the extent of semi-natural woodland locally and the partly degraded nature of the habitat within the Site, and in fact the development will lead to the removal of some areas of rhododendron the effect on this feature is considered to be low and not significant.

Otter

5.2.8 The Tweed by the Site does not provide suitable habitat for holts or other otter resting places, but otters may move along the river. Other parts of the Study Area are not suitable for otters. Site works will remain over 30m from the River Tweed. Otters are predominantly nocturnal and are unlikely to be active during times of construction activity. Therefore, the effects on the local otter population is assessed as barely perceptible and not significant. However, given the small risk that individual otters come into conflict with construction works, which would constitute an offence under the applicable wildlife legislation, additional mitigation for otter is identified.

Bats

5.2.9 Kingsmeadows House and the shed both contain bat roosts and as such are protected at all times from disturbance, alteration, and destruction. Both buildings fall within the proposed development envelope. If any works that may cause disturbance to these roosts are to be carried out within 30m of roost access points, an EPS licence granted by SNH and an accompanying Species Protection Plan will have to be in place prior to works commencing.

5.2.10 In addition six trees have been identified with a potential roosting bats within 30m of the Site of which only one (Tree 16) is to be removed as part of the scheme. In the absence of further mitigation, effects on bats and the/or the removal of trees could constitute an offence under the applicable wildlife legislation.

5.2.11 The Proposed Development falls within 30m of the seven identified roosts and therefore it is likely works at the Site will have an impact on roosting bats in Kingsmeadows house and the shed. The bat roosts were small (less than 5 individuals) and not noted as maternity roosts, therefore should there be any disturbance of these roosts the impacts would be temporary and even in the worst case scenario where a roost was disturbed the impacts on the conservation status of common or soprano pipistrelle bats in the local area is not likely to be significant. There were no bats recorded roosting in trees and a single tree with a roost feature suitable for bats will be removed as part of the scheme. The removal of this tree is unlikely to have any impact of the local population of bats.

5.2.12 Given the fact that it is proposed that construction works is to be undertaken within 30m of the identified roosts, the effects on bats are considered to be high and significant. As such, additional mitigation for bats is identified.

Badger

5.2.13 There are no active badger setts within 30 m of works areas, the recommended no-disturbance distance outlined by Scottish Badgers (2018), although a possible badger shelter feature was recorded around 75m of the proposed works. As a highly mobile species future badger activity may mean badger shelter features are recorded within the Site and in the absence of additional mitigation, works could result in the destruction of setts and possibly in the loss of animals within the sett. Because such a sett would be unlikely to be a main sett, the effect of the impact is unlikely to significantly alter the status of the local badger population. However, it would constitute an offence under the applicable wildlife legislation.

5.2.14 Although badgers are nocturnal, it is possible that badgers could come into contact with construction activities which could constitute an offence under the applicable wildlife legislation.

5.2.15 Overall, the effects on this feature of local value are considered to be low and not significant. However, additional mitigation is identified to prevent legal offences from occurring.

Breeding birds

5.2.16 The removal of woodland habitat at the Site will mean a loss of breeding habitat for a range of woodland birds such as blackbird, chaffinch and great-spotted woodpecker. The site clearance and disturbance created during construction will potentially destroy nests and harm birds; should this occur during the breeding season it would constitute an offence under wildlife legislation. Given the similar areas of woodland surrounding the Site, the impacts on breeding birds is considered to be low and not significant. However, additional mitigation is identified to prevent legal offences from occurring.

Operation Phase Effects

Summary of operation phase impacts

5.2.17 Operation of the Proposed Development will involve people occupying the house extension, and on-site traffic including both vehicles and walking or cycling residents as well as pets and visitors.

Assessment of Effects

River Tweed SAC

5.2.18 The Proposed Development will result in more people being present on Site, including around the fringes of the SAC, but most of the activity will be residents and visitors walking on paths or on grassed areas close to the river. There will be no significant increase in vehicular traffic immediately adjacent to the SAC and impacts on the qualifying habitat and aquatic species are therefore unlikely to be significant. In addition, given the lack of otter resting places along the river banks within the Site, the increased numbers of people are not likely to impact on this qualifying feature of the SAC. Operation phase impacts are therefore unlikely to have a significant effect on the SAC.

Semi-natural broadleaved woodland

5.2.19 The habitat will remain in close proximity to house extension and it is probable that residents and visitors will take walks within the habitat, although most of this traffic is likely to follow designated paths. The majority of veteran trees will remain as part of the development and as such, the integrity or conservation status of the habitat is not likely to be not significant.

Otter

5.2.20 As discussed above, otters are nocturnal and are unlikely to come into contact with human activity during the operational phase of the development, in parts because there are no otter resting places within the Site. Effects are therefore considered to be barely perceptible and not significant.

Bats

5.2.21 Bats will continue to use habitats within the site mainly for foraging and commuting. A high number of veteran trees with roost potential will remain on Site and may be used by small numbers of bats, similar to the current situation. As such no significant effects from operational phase impacts are predicted.

Badger

5.2.22 The possible badger sett is over 30m away from the development footprint (the recommended no-disturbance distance from Scottish Badgers (2018)), and as badgers are nocturnal, they are unlikely to come into contact with human activity during the operational phase of the development.

5.2.23 It is possible that disturbance by people, possibly combined with unleashed pet dogs, could cause a sett to be vacated, but this risk is unlikely to be significantly different from current conditions at the Site, because the main house contains a number of residents already and walking trails in the woodland are currently well used. It is also possible that badgers may be impacted by traffic, notably at night when badgers are active and may cross track infrastructure. In the absence of additional mitigation, the effect could be the injury or killing of an animal. Given the abundance of badgers, this is unlikely to affect the conservation status of the local badger population. However, it could constitute an offence under the applicable wildlife legislation.

5.2.24 Overall, the effects on this feature of local value are considered to be low and not significant. However, additional mitigation is identified to prevent legal offences from occurring.

Breeding birds

5.2.25 Birds will continue to use habitats within the site mainly for foraging and breeding and no significant effects from operational phase impacts are predicted.

Additional Mitigation Measures

5.2.26 Standard mitigation will be implemented, as outlined in Paragraph 5.2.2.

5.2.27 Although more measures may be identified in the subsequent detailed planning application, a commitment is made to implementing the following additional mitigation measures to reduce significant effects on IEFs:

- Construction Phase:
  - Works will be overseen by an Ecological Clerk of Works (ECoW).
  - Any exposed pipe systems will be capped when not being worked and exit ramps will be provided for any exposed trenches or excavations (to prevent mammals entering and becoming trapped).
  - There will be no working during the hours of darkness and within two hours after sunrise and two hours before sunset to reduce the risk of disturbance to otters, bats and badgers. This can be reduced to one hour between November and February due to limited daylight.

- Temporary losses of habitat will be reduced by minimising the footprint of the construction activity. This will be achieved by operating machinery and storing materials within the footprint of permanent construction features, wherever practicable. It will also be achieved through appropriate training of the site staff and by ensuring that vehicles and their operators do not inadvertently stray onto adjacent habitat areas, including areas of woodland as identified by the ECoW.
- A 10 mph speed limit to be enforced on the site at all times during construction and operation to avoid collision with mammals at the site, most notably at night.

- Badger specific:
  - A pre-construction check for badgers, including setts, within works areas and a 50m buffer; and
  - A 30m exclusion zone to be enforced around the possible sett feature location and any new sett features identified during the pre-construction survey.
- Otter specific:
  - A pre-construction check for otter and otter shelter features of works areas and 250m; and
  - A 30m exclusion zone to be enforced around any other shelter features identified during the pre-construction survey (200m if suspected as a maternal holt).
- Bat specific:
  - It is unlikely give the proximity of the works to the seven known bat roosts that a 30m buffer can be maintained, therefore prior to the commencement of works an application for an EPS licence will be submitted to SNH together with update bat survey data and an accompanying Species Protection Plan (SPP);
  - Any trees with bat roost features that are to be felled require further activity surveys or to be re-inspected prior to felling as outlined in the bat survey report in Appendix G; and
  - The provision of bat boxes in the local areas will compensate for lost roost habitat due to tree felling.
- Woodland and breeding bird specific:
  - Planting of native trees where possible throughout the scheme.
  - Any clearance of scrub or felling of trees will be avoided during the bird breeding season (approximately April to August) where possible, unless a pre-construction survey has been undertaken by the ECoW. In such cases, works must commence within the surveyed area within 48 hours of the survey being completed.
  - The provision of bird nesting boxes to mitigate for lost nesting habitat.

Statement of Significance

5.2.28 Assuming that mitigation measures are implemented as described above, no residual significant impacts are expected.

Cumulative Impacts

5.2.29 The only other known plans or projects that has been identified with a potential to affect the same IEFs identified in this assessment is the East Woods Development, as outlined in Section 5.3, with the potential to be affected by the Proposed Development. As both developments are predicted to have no residual significant impacts, as such no effects from cumulative impacts are predicted.

5.3 Potential Effects – East Woods Development

Description of the Proposed Development

5.3.1 The Proposed Development is shown on the masterplan (see Figure 5) and comprises the following main elements:

- eight houses with gardens will be created in woodland south-east of the main house;
- track infrastructure and communal parking; and
- new road and entrance to Kingsmeadows Road to the south.

Standard Mitigation Measures

5.3.2 The ecological impact assessment has been undertaken with the assumption that standard mitigation measures will be applied to the project, as follows:

- All construction works will be required to accord with a Construction Environmental Management Plan (CEMP). The construction works will require a Construction and Environmental Method Statement (CMS) to be prepared post-determination and in advance of the commencement of works; and
- Pollution Prevention Guidelines (PPGs) and Guidelines for Pollution Prevention (GPPs) will be followed during all site clearance and construction works.

Construction Phase Effects

Summary of Construction Impacts

5.3.3 The Proposed Development preparation and construction phase will result in habitat loss, due to the construction of track infrastructure and the footprint of the new structures.

5.3.4 Habitat directly beneath the development footprint will be permanently lost. Temporary construction/laydown areas will utilise existing hardstanding. Habitat damage associated with construction will be temporary.

5.3.5 Reinstatement will be undertaken as soon as practicable after the project is completed. Areas of the site will be reinstated to agreed conditions. Verges of tracks will be re-graded with topsoil (stored adjacent to each excavation) and then left to re-generate as appropriate. Any imported aggregate will be checked to ensure that it is inert in relation to its use in order to preclude any potential adverse effects on the local hydrology and/or ecology.

Assessment of Effects

River Tweed SAC

5.3.6 Site works will remain over 50m from the River Tweed SAC, and with a fully enforced CEMP the potential to impact on this feature of international value is considered to be barely perceptible and not significant.

Semi-natural broadleaved woodland

5.3.7 There will be direct loss of semi-natural broadleaved woodland with a total of 0.46 (plus 0.06 for the access road) hectares and 14 trees lost to the footprint of the scheme. The section of woodland within the Site extends along the River Tweed in both directions for approximately 500m and also continues south of the Site on the opposite side of Kingsmeadows road. Given the extent of semi-natural woodland locally and the partly degraded nature of the habitat within the Site, the effect on this feature of local value considered to be low and not significant.

Otter

5.3.8 The Tweed by the Site does not provide suitable habitat for holts or other otter resting places, but otters may move along the river. Other parts of the Study Area are not suitable for otters. Site works will remain over 30m from the River Tweed. Otters are predominantly nocturnal and are unlikely to be active during times of construction activity. Therefore, the effects on the local otter population is assessed as barely perceptible and not significant.

Bats

5.3.9 Seven roosts were identified during bat activity surveys at the Site and nine trees have been identified with a potential roosting bats within 30m of the Site of which only one (Tree 16) is to be removed as part of the scheme. None of the works at the Proposed Development is within 30m of the known roost sites and as such the works should have no impacts on bats in these areas. A single tree is to be removed which contains features suitable features for roosting bats and a further six trees fall within 30m of proposed works. In the absence of further mitigation, effects on bats from disturbance and the/or the removal of trees could constitute an offence under the applicable wildlife legislation. Given the fact that it is proposed that construction works is not to be undertaken within 30m of the identified roosts, the effects on bats are considered to be low and not significant. However, given the potential for bat roost feature within trees to be populated in the time since the last survey in September 2019, additional mitigation for bats is identified.

Badger

5.3.10 There are no active badger setts within 30 m of works areas, the recommended no-disturbance distance outlined by Scottish Badgers (2018), although a possible badger shelter feature was recorded between 35-40m of the proposed works. As a highly mobile species future badger activity may mean badger shelter features are recorded within the Site and in the absence of additional mitigation, works could result in the destruction of setts and possibly in the loss of animals within the sett. Because such a sett would be unlikely to be a main sett, the effect of the impact is unlikely to significantly alter the status of the local badger population. However, it would constitute an offence under the applicable wildlife legislation.

5.3.11 Although badgers are nocturnal, it is possible that badgers could come into contact with construction activities which could constitute an offence under the applicable wildlife legislation.

5.3.12 Overall, the effects on this feature of local value are considered to be low and not significant. However, additional mitigation is identified to prevent legal offences from occurring.

Breeding birds

5.3.13 The removal of woodland habitat at the Site will mean a loss of breeding habitat for a range of woodland birds such as blackbird, chaffinch and great-spotted woodpecker. The site clearance and disturbance created during construction will potentially destroy nests and harm birds; should this occur during the breeding season it would constitute an offence under wildlife legislation. Given the similar areas of woodland surrounding the Site, the impacts on breeding birds is considered to be low and not significant. However, additional mitigation is identified to prevent legal offences from occurring.

Operation Phase Effects

Summary of operation phase impacts

5.3.14 Operation of the Proposed Development will involve people occupying the houses, and on-site traffic including both vehicles and walking or cycling residents as well as pets and visitors.

Assessment of Effects

River Tweed SAC

5.3.15 There will be more people present around the fringes of the SAC during operation of the Site but only likely people walking or having picnics on grassed areas close to the river. There will be no increase in

vehicular traffic and given the lack of otter resting places along the river banks the increased numbers of people are not likely to impact on the qualifying features of the SAC. Operation of the Site is unlikely to impact on qualifying interests of the SAC and not significant.

Semi-natural broadleaved woodland

5.3.16 The habitat will be in close proximity to houses and it is probable that residents will take walks within the habitat, although most guests are likely to follow designated paths. The majority of veteran trees will remain as part of the development and in fact the development will lead to the removal of some areas of rhododendron and as such, the integrity or conservation status of the habitat is not likely to be not significant.

Otter

5.3.17 As discussed above, otters are nocturnal and are unlikely to come into contact with human activity during the operational phase of the development. Effects are unlikely to be significantly different from the current conditions and the effects are therefore considered to be barely perceptible and not significant.

Bats

5.3.18 Bats will continue to use habitats within the site mainly for foraging and commuting and no significant effects from operational phase impacts are predicted.

Badger

5.3.19 The possible badger sett is over 30m away from the nearest road or house (the recommended no-disturbance distance from Scottish Badgers (2018)), and as badgers are nocturnal, they are unlikely to come into contact with human activity during the operational phase of the development.

5.3.20 It is possible that disturbance by people, possibly combined with unleashed pet dogs, could cause a sett to be vacated, but this risk is unlikely to be significantly different from current conditions at the Site given the fact that the main house contains a number of residents already and walking trails in the woodland are well used by residents. It is also possible badgers may be impacted by traffic, notably at night when badgers are active and may cross track infrastructure. In the absence of additional mitigation, the effect could be the injury or killing of an animal. Given the abundance of badgers, this is unlikely to affect the conservation status of the local badger population. However, it could constitute an offence under the applicable wildlife legislation.

5.3.21 Overall, the effects on this feature of local value are considered to be low and not significant. However, additional mitigation is identified to prevent legal offences from occurring.

Breeding birds

5.3.22 Birds will continue to use habitats within the site mainly for foraging and breeding and no significant effects from operational phase impacts are predicted.

Additional Mitigation Measures

5.3.23 Standard mitigation will be implemented, as outlined in Paragraph 5.3.2.

5.3.24 Although more measures may be identified in the subsequent detailed planning application, a commitment is made to implementing the following additional mitigation measures to reduce significant effects on IEFs:

- Construction Phase:
  - Works will be overseen by an Ecological Clerk of Works (ECoW).
  - Any exposed pipe systems will be capped when not being worked and exit ramps will be provided for any exposed trenches or excavations (to prevent mammals entering and becoming trapped).

- There will be no working during the hours of darkness and within two hours after sunrise and two hours before sunset to reduce the risk of disturbance to otters, bats and badgers. This can be reduced to one hour between November and February due to limited daylight.
- Temporary losses of habitat will be reduced by minimising the footprint of the construction activity. This will be achieved by operating machinery and storing materials within the footprint of permanent construction features, wherever practicable. It will also be achieved through appropriate training of the site staff and by ensuring that vehicles and their operators do not inadvertently stray onto adjacent habitat areas, including areas of woodland as identified by the ECoW.
- A 10 mph speed limit to be enforced on the site at all times during construction and operation to avoid collision with mammals at the site, most notably at night.

- Badger specific:
  - A pre-construction check for badgers, including setts, within works areas and a 50m buffer; and
  - A 30m exclusion zone to be enforced around the possible sett feature location and any new sett features identified during the pre-construction survey.
- Bat specific:
  - A 30m no-disturbance buffer will be maintained around all known roost sites;;
  - If a 30m buffer cannot be maintained around known roost sites, an application for an EPS licence will be submitted to SNH together with update bat survey data and an accompanying Species Protection Plan (SPP);
  - Any trees with bat roost features that are to be felled require further activity surveys or to be re-inspected prior to felling as outlined in the bat survey report in Appendix G; and
  - The provision of bat boxes in the local areas will compensate for lost roost habitat due to tree felling.
- Woodland and breeding bird specific:
  - Planting of native trees where possible throughout the scheme.
  - Any clearance of scrub or felling of trees will be avoided during the bird breeding season (approximately April to August) where possible, unless a pre-construction survey has been undertaken by the ECoW. In such cases, works must commence within the surveyed area within 48 hours of the survey being completed.
  - The provision of bird nesting boxes to mitigate for lost nesting habitat.

Statement of Significance

5.3.25 Assuming that mitigation measures are implemented as described above, no residual significant impacts are expected.

Cumulative Impacts

5.3.26 The only other known plans or projects that has been identified with a potential to affect the same IEFs identified in this assessment is the Kingsmeadows House extension, as outlined in Section 5.2, with the potential to be affected by the Proposed Development. As both developments are predicted to have no residual significant impacts, as such no effects from cumulative impacts are predicted.

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Figures

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River Tweed SAC / SSSI

KEY

- Site boundary
- 2km buffer
- 5km buffer
- Specieal area of conservation (SAC)
- Site of Special Scientific interest (SSSI)
- Ancient Woodland

0 1 2 km

Scale 1:40,000 @ A3

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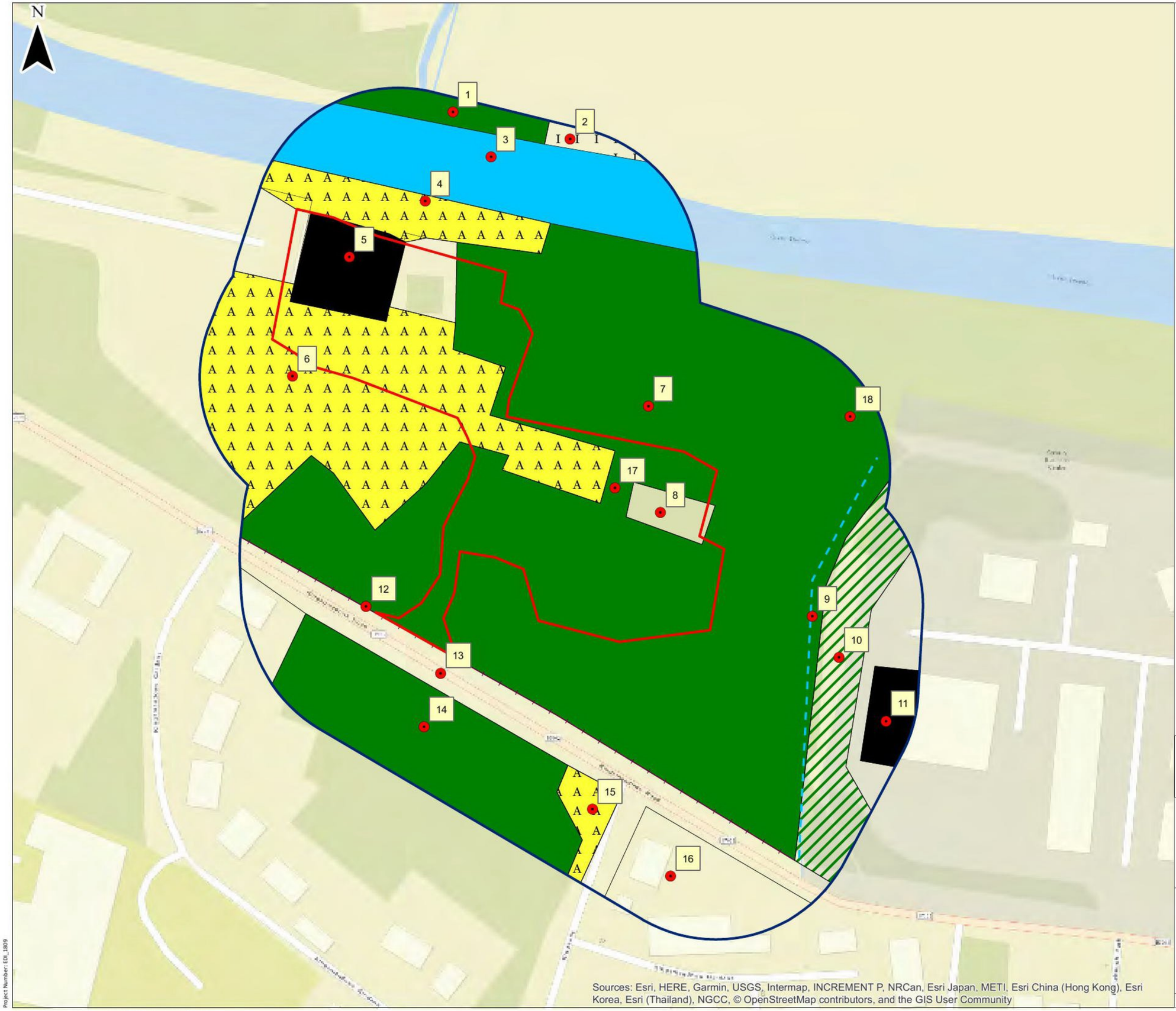
Kingmeadows House
Preliminary Ecological Appraisal

Figure 1

Designated Sites

Date: 31/07/2019	Drawn by: AT	Checked by: MF	Version: V1

Project Number: EDI_1809



KEY

- Site Boundary
- Survey buffer
- Target Notes

habitat

- Broadleaved semi-natural woodland
- Broadleaved planation woodland
- Improved grassland
- Running water
- Amenity grassland
- Buildings
- Other

Linear Features

- Species poor intact hedgerow
- Wall
- Dry ditch

0 0.03 0.06 km

Scale 1:1,250 @ A3

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Preliminary Ecological Appraisal

Figure 2

Phase 1 Habitats and Target Notes

Date:	Drawn by:	Checked by:	Version:
31/07/2019	AT	MF	Draft/V1

Project Number: EDL_1809

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Kingsmeadows Road

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

KEY

- PRA (bat) Target notes
- Site Boundary
- Survey buffer

0 0.025 0.05 km

Scale 1:1,000 @ A3

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Kingsmeadows House
Preliminary Roost Assessment

Figure 3

Prelimiary Roost Assessment Survey Results

Date:	Drawn by:	Checked by:	Version:
31/07/2019	AT	MF	V1

Project Number: EDL_1809

Figure 4 – Confidential Badger Survey Results

Appendix A - Policy Framework

Scottish Planning Policy

The Scottish Planning Policy (SPP) (Scottish Government, 2014) superseded National Planning Policy Guideline (NPPG) 14 (Natural Environment) and forms the basis for planning system decisions with respect to conserving and enhancing the natural environment.

Under 'Landscape and Natural Heritage', the SPP sets out, in addition to other points, how planning authorities should take a strategic broader approach to landscape and natural heritage than just conserving designated or protected sites and species by taking into account ecosystems and natural processes in the area.

In addition to the above, the SPP also outlines how planning authorities should place emphasis on the prevention of '*further habitat fragmentation or isolation of habitats and identify opportunities to restore links which have been broke*' and '*seek benefits for species and habitats from new development including the restoration of degraded habitats*'.

With regards to International Designations, the SPP outlines that areas classed as '*Special Protection Areas (SPA) under the Birds Directive or areas classed as Special Areas of Conservation (SAC) under the Habitats Directive form part of the Natura 2000 Network and therefore any development that is likely to have a significant effect on a Natura 2000 site and is not directly connected with or necessary to the conservation management of that site will be subject to an appropriate assessment by the planning authority of the implications for the site's conservation objectives*'. The SPP further states that, '*development which could have a significant effect on a Natura site will only be permitted where (a) an appropriate assessment has demonstrated no adverse effect on the integrity of the site, (b) no alternative solutions and (c) there are imperative reasons of overriding public interest*'.

Furthermore, the SPP also outlines how that any '*development plan affecting a Natura site where a priority habitat or species as defined in Article 1 of the Habitats Directive will be affected prior consultation with the European Commission via Scottish Ministers will be required*'. The SPP also notes that Ramsar sites are also subject to the above consideration.

In relation to National Designations such as SSSI or NNR the SPP outlines that '*development that affects a SSSI or NNR should only be permitted where (a) it will not adversely affect the integrity of the area or qualities for which it has been designated or (b) any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance*'.

Local Designations such as LNR can complement both international and national designations and in combination protect, '*enhance and encourage the enjoyment and understanding of locally important landscapes and natural heritage*'. The SPP sets out how such local designations should be clearly identified and protected through development plans and the reasons for designation taken into account when developing development plans.

With regards to protected species, the SPP outlines that '*although the presence of legally protected species is an important consideration in planning decision they are not necessarily an absolute block on development with mitigation often needed. If protected species are on site or are likely to be affected by a proposed development their presence must be established and the requirements of the species factored in to the planning and design of the development along with any likely impact fully considered prior to the determination of the planning application*'.

The SPP concludes by stating that, '*planning permission must not be granted for a development that would be likely to have an adverse effect on a European Protected species unless the planning authority is satisfied that there is no satisfactory alternative and the development is required for preserving public or public safety or for other imperative reasons overriding public interest (including social, economic and beneficial for the environment)*'.

Planning Advice Note (PAN) 60

National planning policy on landscape and natural heritage is supported by Planning Advice Note (PAN) 60 Planning for Natural Heritage, together with the SSP and PAN 44 Fitting New Housing Development into the Landscape, the key elements of the policies include:

- Taking a broader approach to landscape and natural heritage than just conserving designated or protected sites and species, taking into account ecosystems and natural processes.
- Facilitating positive landscape change whilst maintaining and enhancing distinctive character.
- Seeking benefits for species and habitats from new development including the restoration of degraded habitats.
- Siting and design of development should be informed by local landscape character.
- Encouraging connectivity between habitats, through green networks.
- Protecting internationally and nationally designated habitats and species.
- Protecting and enhancing woodland and trees of high nature conservation value.

Local Planning Policy

Local Planning Policy

The Planning etc. (Scotland) Act 2006 legislated a variety of reforms to the Scottish planning system. With respect to development planning, the legislation paved the way to replace Structure Plans with new Strategic Development Plans for four city region areas (Edinburgh, Glasgow, Dundee and Aberdeen). However, although there is no requirement for planning authorities outside of these four city regions to prepare strategic development plans, there is a requirement for all planning authorities to prepare local development plans for their individual areas, which effectively replace the old local plans.

Local Development Plan

The policies set out below are those relevant to nature conservation and include those from the Scottish Borders Local Development Plan (LDP); which was adopted in 2016 (Scottish Borders Council, 2016).

Environmental Promotion and Protection

- Policy EP1: International Nature Conservation Sites and Protected Species
- Policy EP2: National Nature Conservation and Protected Species
- Policy EP3: Local Biodiversity
- Policy EP4: National Scenic Areas
- Policy EP5: Special Landscape Areas
- Policy EP6: Countryside around Towns
- Policy EP10: Garden and Designed Landscapes
- Policy EP11: Protection of Greenspace
- Policy EP12: Green Networks
- Policy EP13: Trees, Woodlands and Hedgerows
- Policy EP14: Coastline
- Policy EP15: Development Affecting the Water Environment
- Policy EP16: Air Quality

Appendix B - Target Notes

ID	Grid Reference		Phase 1 Code	Description
	X	Y		
1	225952	639999	A1.1.1	 Strip of mature woodland borders the north of the River Tweed. Mature beech, Pedunculate oak and sycamore were noted as the dominant species with Scots pine also noted.
2	226063	639979	B4	Improved grassland used for grazing cattle. Shown in plate for TN1.
3	226010	639964	G2	River Tweed – flows east. Much of the river banks are man made and rocky. Water level was relatively low but still fast flowing, clear water. Shown in plate for TN1.
4	226010	639964	J1.2	 Amenity grassland between Kingsmeadows house and River Tweed.
5	225972	639934	J3.6	Kingsmeadows House – large old house converted to flats. Associated car parking and hard standing in gardens to rear. Shown in Plate for TN4.

6	225933	639920	J1.2	 Large section of amenity grassland, closely cropped. Four mature oak trees in south-east of this section.
7	226095	639898	A1.1.1	 Mature beech, oak, sycamore, lime and birch were noted as the dominant trees species with spruce, Scots pine, rowan, holly, wych elm and hawthorn also recorded. The understory was dominated by rhododendron within the west and north-west of the Site. The ground flora was dominated by woodrush and dog's mercury along the River Tweed, but open with a covering of leaf litter in the centre of the Site; it was overgrown with common nettle, bramble, rosebay willowherb and common hogweed in the south of the Site.

8	226087	639845	J5	 Hard standing – tennis court
9	226123	639784	J2.6	 Dry ditch follows eastern edge of the Site. covered in leaf litter, overgrown with common nettle, with bramble in sections.

10	226143	639801	A1.1.2	 The woodland contained immature trees with birch beech and ash recorded as the dominant trees species. A few mature sycamore and oak trees were recorded in the very south of the section. The understory was overgrown with tall ruderal species such as common nettle and cleavers with bramble, herb Robert and wood avens also frequently recorded.
11	226168	639779	J3.5	 Industrial building and associated grounds made up of hard standing and amenity grassland.

12	226011	639798	J2.5	 Stone wall runs along road edge making up the Site boundary.
13	226028	639785	J5	Kingsmeadows Road. See plate for TN12.
14	225992	639787	A1.1.1	 Woodland similar to TN7 extends south of Kingsmeadows Road.

15	226060	639748	J1.2	 Amenity grassland associated with a housing estate. Recently cut, making species identification difficult.
16	226090	639731	J5	 Houses and associated gardens

17	226067	639856	J2.1.2	 Leylandii hedgerow – intact and species poor.
18	226157	639894	J3.6	 Ruined church – just walls remaining.

Appendix C – Confidential Badger Survey Target Notes

TN	Grid Reference		Description
	X	Y	
1	E 26120 W26120 N26119	39897 39900 39898	 Multiple hole shelter feature. 5 entrances, no definitive evidence of badger recorded. Holes were noted as having rabbit droppings present and the westerly entrance smelled strongly of fox occupation. Feature is located approxiamtely 35m north of the site boundary.

2			
3			 Digging / holes on the forest floor
4	26090	39897	Mammal (fox) den under rhododenron

Appendix D – Species List

Common name	Scientific name
Herbs:	
Annual meadow-grass	*Poa annua*
Bracken	*Pteridium aquilinum*
Bramble	*Rubus fruticosus*
Broad-leaved dock	*Rumex obtusifolius*
Cleavers	*Galium aparine*
White Clover	*Trifolium repens*
Cock's-foot	*Dactylis glomerata*
Common nettle	*Urtica dioica*
Common hogweed	*Heracleum sphondylium*
Cows parsley	*Anthriscus sylvestris*
Creeping buttercup	*Ranunculus repens*
Creeping thistle	*Cirsium arvense*
Dandelion	*Taraxacum agg.*
Dog's mercury	*Mercurilis perennis*
Herb robert	*Geranium robertianum*
Ivy	*Hedera helix*
Leyland cyprus	*Cupressus leylandii*
Meadow vetchling	*Lathyrus pratensis*
Meadowsweet	*Filipendula ulmaria*
Perennial rye-grass	*Lolium perenne*
Red campion	*Silene dioica*
Ribwort plantain	*Plantago lanceolata*
Rhododendron	*Ericaceae sp.*
Rosebay willowherb	*Chamaenerion angustifolium*
Soft-rush	*Juncus effusus*
Wood avens	*Geum urbanum*
Greater Woodrush	*Luzula sylvatica*
Trees:	
Alder	*Alnus glutinosa*
Ash	*Fraxinus excelsior*
Beech	*Fagus sylvatica*
Birch	*Betula* sp.
European larch	*Larix decidua*
Hawthorn	*Crataegus monogyna*
Holly	*Ilex aquifolium*
Lime	*Tilia cordata*
Pedunculate oak	*Quercus robur*
Rowan	*Sorbus aucuparia*
Scots pine	*Pinus sylvestris*
Norway Spruce	*Picea abies*
Sycamore	*Acer pseudoplatanus*
Wild cherry	*Prunus avium*
Wych elm	*Ulmus glabra*
***Ad hoc* bird records:**	
Blackbird	*Turdus merula*
Blue tit	*Cyanistes caeruleus*
Black-headed gull	*Chroicocephalus ridibundus*

Common name	Scientific name
Blackcap	*Sylvia atricapilla*
Carrion crow	*Corvus corone*
Chaffinch	*Fringilla coelebs*
Dipper	*Cinclus cinclus*
Chiffchaff	*Phylloscopus collybita*),
Dunnock	*Prunella modularis*
Goldfinch	*Carduelis carduelis*
Great-spotted woodpecker	*Dendrocopos major*
Great tit	*Parus major*
Grey wagtail	*Moticilla cinerea*
Mallard	*Anas platyrynchos*
Nuthatch	*Sitta europaea*
Oystercatcher	*Haematopus ostralegus*
Pheasant	*Phasianus colchicus*
Siskin	*Carduelis spinus*
Swallow	*Hirundo rustica*
Tawny owl	*Strix aluco*
Wood pigeon	*Columba palumbus*
***Ad hoc* mammal evidence:**	
Rabbit	*Oryctolagus cuniculus*
Red fox	*Vulpus vulpes*
Roe deer	*Capreolas capreolas*

0 5 10 15 20 25 30

1:500 scale at A1 size

RIVER TWEED

TWEED

TWEED

existing car park

Kingsmeadows House

courtyard

Proposed development

Turning area for refuse vehicles etc.

Pedestrian route and services strip with street lighting

bowling green

tennis court

Existing track to be upgraded to new road with level surface and in accordance with 'Designing Streets'

Existing site access

MARMION ROAD

KINGSMEADOWS ROAD B 7062

KINGSMEADOWS GARDENS

Enhanced site access for vehicles and pedestrians.

This line indicates extent of property under the ownership of the applicant.

N

E

W

S

Revision B - 07.02.2020 plan of flats adjusted

Revision A - 05.02.2020 plan of flats adjusted

ZONE ARCHITECTS

PROJECT
Kingsmeadows House
Flats PPP plan

DRAWING
Site Plan

CLIENT
Granton Homes

SCALE @ A1
1:500 at A1

DATE
January 2019

DRAWING N°
329-028

REV N°
B

RIVER TWEED

N 639 900

N 639 850

N 639 800

Existing woodland path to be maintained

Ruin

Egul Woods

Kingsmeadows House

Site for flats as per consent REF 15/00822/PPP

New Access

KINGSMEADOWS ROAD B7062

E 326 150