Parish Biodiversity Action Plan

Eglingham Parish, Northumberland

October 2023

Final Report – Not Confidential

Report Prepared For:	**Project Ref:** ECN20 206
Eglingham Parish Council	**Prepared By:** Niamh Hawthorne
	Reviewed By: Kevin O'Hara / Thomas Wilson
	Approved By: Kevin O'Hara / John Thompson
	Date: 25th October 2023

eco NORTH
Ecological Consultants

Document Control

Version	Date	Changes	Confidentiality	Prep	Rev	Auth
Phase 1	27/07/2021	Draft to client	Not Confidential	JH	ER	KOH
Phase 2	16/08/2022	Update with field survey results	Not Confidential	NH	KOH	KOH
Phase 3	30/08/2023	Update with recommendations	Not Confidential	NH	TW	JT

Field Investigations and Data

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by EcoNorth Ltd for inaccuracies in the data supplied by any other party.

Declaration of Compliance

"The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed within this document are our true and professional bona fide opinions."

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EcoNorth Ltd
11 Enterprise Court
Cramlington
Northumberland
NE23 1LZ

E: enquiries@econorth.co.uk
T: 01670 735 547
W: www.econorth.co.uk

Registered in England and Wales – Company Number 2274277

Ref: CF.102 Version 5.0 17.06.22

Contents

1. Summary

EcoNorth Ltd was commissioned by Eglingham Parish Council to create a Parish Biodiversity Action Plan for Eglingham Parish, Northumberland. The Parish Council wishes to document, enhance, and protect biodiversity within the Parish. This will be achieved by consultation and engagement with the local community, and documenting wildlife, habitats, and protected sites within the Parish. The Parish Council have commissioned EcoNorth, the Wildlife Trust Consultancy associated with Northumberland Wildlife Trust to assist with the completion of this document.

A three-stage plan has been proposed to achieve this goal:

1. The completion of a desk study to identify species, broad habitats, and the presence of statutory and non-statutory protected sites within the Parish boundary.
2. A series of habitat surveys using the Phase One Habitat Survey Methodology. These surveys will be targeted to key areas within the Parish, identified by the Parish Council in conjunction with the desk study.
3. The creation of the Action Plan document using data gathered in parts one and two. The Action Plan will provide general Parish-wide measures to enhance biodiversity, as well as actions to complete to enhance key areas for biodiversity within the Parish. The Plan will detail appropriate measures and identify a method for monitoring and reporting on progress over several years.

2. Introduction

2.1 Background

Eglingham Parish Council (henceforth referred to as “the Parish”, “the Parish Council”, or “the client”) has determined the requirement to document, protect, and enhance biodiversity within the Eglingham Parish. The Parish Council has sought the advice of EcoNorth, the Wildlife Trust Consultancy owned by Northumberland Wildlife Trust and have commissioned the creation of a Parish Biodiversity Action Plan (PBAP). The proposed PBAP document will be produced with a view to ensuring the protection and enhancement of biodiversity within the Parish boundary. The PBAP and will be completed in three stages, the first two of which have been completed.

The results of the desk study and field surveys would then be used to create an Action Plan to enhance key areas for biodiversity with a view to their protection within the Parish, and general Parish-wide measures that may be adopted for further enhancements. The Action Plan would detail appropriate measures and a method of monitoring and reporting on them over several years.

This report:

- Identifies and addresses key legislation that will be used to underpin the PBAP.
- Sets out the results of the desk study and field surveys.
- Analyses the Parish value for nature conservation.
- Sets out an Action Plan to enhance key areas for biodiversity.

2.2 Site Context

This report concerns the Parish of Eglingham, in Northumberland. Eglingham Parish is bordered by the Parishes of Bewick, Hedgely, Denwick, Rennington, Newton-by-the-Sea, and Ellingham Parishes. The Parish contains the villages of Eglingham, West Ditchburn, South Charlton, and North Charlton. The A1 crosses through the Parish in the east.

The Parish is rural with much of the land within the boundary given over to agriculture, including both arable and cattle farming. As such, the landscape is dominated by fields, which stretch into upland fringe and moorland to the north and south of Eglingham village. The landscape also contains patches of woodland, including semi-natural and plantation woodlands. The Wandylaw commercial windfarm spans the northern boundary of the Parish. There are no major watercourses within the Parish boundary, though several important tributaries to major watercourses (including the River Breamish and River Aln) are present.

Figure 1 identifies the location and extent of the Parish.

Figure 1: Eglingham Parish Boundary

3. The Importance of Biodiversity

The 2019 State of Nature Report (Hayhow *et al.*, 2019) clearly presents a picture of biodiversity decline across the UK, with 41% of species having decreased in abundance since 1970, with 27% of species also exhibiting a decrease in their natural range. On average, 13% of the 696 species considered in the analysis have exhibited a decline in abundance and, whilst not significantly, this decline has worsened since 2009.

These declines and trends in our wildlife have significant implications for the function of the natural environment, with which human society is intrinsically linked: declines in the environment will have, and are having, impacts on our health, well-being, and economy. The services the environment offers have been codified into Ecosystem Services (Ecosystem Services 2013).

These services may be defined according to four broad categories that are set out below:

1. Supporting Services – production of all services, such as photosynthesis, soil formation, carbon cycling, and water cycling.

2. Provisioning Services – production of tangible products, from food, fuel, and fibres to pharmaceuticals, clean water, and even ornamental resources.

3. Regulatory Services – benefits obtained from the regulation of ecosystem processes, such as the regulation of air quality, climate, water, disease, and flooding.

4. Cultural Services – non-material benefits that people obtain from experiencing nature, such as outdoor recreation, reflection, and even cognitive development.

4. Biodiversity and Legislation

4.1 Planning Policy and Guidance

A series of national and local planning policies are in place which are designed to ensure that development works do not have an adverse impact upon biodiversity, at a site or wider level. Such policies ensure that both developers and public bodies must give due consideration to the potential effects of development works upon both ecological receptors (in line with existing wildlife legislation) and biodiversity.

4.1.1 National Planning Policy Framework (NPPF) (2021)

The NPPF outlines the Government's policies through the planning process, acting as guidance for local planning authorities and decision-makers. The document places a duty on local authorities to consider the principles included when assessing planning applications and preparing Local Plans and Regional Spatial Strategies. Chapter 15 relates to the conservation and enhancement of the natural environment, in line with existing wildlife legislation. Further details are provided on the gov.uk website.

4.1.2 Habitats and Species of Principal Importance / Biodiversity Action Plans (BAPs)

The UK BAP was published in 1994 to guide national strategies for the conservation of biodiversity. BAPs were designed to ensure the conservation and re-establishment of natural habitats, and that measures were implemented to aid the conservation and enhancement of habitats and species of local importance, the latter through the development of Local BAPs. The UK BAP was succeeded by the 'UK Post-2010 Biodiversity Framework' in 2012, however, the lists of species and habitats of conservation importance are still considered a valuable tool for identifying features of local and national conservation concern. As such, the potential presence of both Local and UK BAP habitats and species were considered throughout the surveys and assessment.

Species and habitats formerly identified and included within UK BAPs are typically also those which are considered to be "of principal importance for the purpose of conserving biodiversity" and listed under section 41 (England) of the NERC Act (2006) in accordance with the requirements of the NERC Act. Such species and habitats need to be taken into consideration by a public body when performing any of its functions.

4.1.3 Natural Environment White Paper (2011, updated 2014)

The document provides a framework for protecting and enhancing the natural environment and outlines the governments vision for nature for the next 50 years. It proposes to support this vision by identifying key measures:

- Reconnecting Nature – via biodiversity offsetting, phasing out the use of peat, and creating Nature Improvement Areas
- Connecting People and Nature – via the designation of green areas, encouraging outdoor education, and strengthening public health services
- Capturing and Improving the Value of Nature – via the creation of a "natural capital committee"

4.1.4 Making Space for Nature (Lawton 2010)

Also known as the Lawton Review, this document reviewed wildlife sites in England, and introduced the key concept of "more, bigger, better, and joined" in terms of restoring nature. The review has two key elements, namely rebuilding nature and establishing an ecological network.

Rebuilding nature may be achieved by following five key approaches: improving the quality of sites via better habitat management, increase the size of these sites, link sites via the creation of corridors or steppingstones in the landscape, the creation of new sites, and improving the wider environment to reduce the pressure on wildlife.

Establishing an ecological network that is both coherent and resilient may be achieved by completing three key objectives: restoring appropriate habitats and species, securing and restoring the long-term sustainability of ecosystem services, and provide access to natural environments to the public.

4.2 Legislation

A range of legislation is in place to ensure that habitats and species of conservation importance are protected from both direct and indirect harm. Key legislation includes:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (The Habitat Regulations).
- The Convention on the Conservation of European Wildlife and Natural Habitats 1979 (The Bern Convention).
- The Wildlife and Countryside Act 1981 (as amended).
- The Natural Environment and Rural Communities (NERC) Act 2006.
- The Countryside and Rights of Way (CRoW) Act 2000.
- The Wild Mammals (Protection) Act 1996.
- The Protection of Badgers Act 1992.
- The Hedgerow Regulations 1997.

An overview of the above legislation is provided in Appendix A.

The potential presence, on or near the site, of species afforded protection under the above legislation was considered throughout the surveys and assessment. Species considered include:

- Bats.
- Great crested newt.
- Otter.
- Reptiles.
- White-clawed crayfish.
- Freshwater pearl mussels.
- Water vole.
- Red squirrel.
- Badger.
- Birds.
- Migratory fish.

An overview of the legislation and level of protection relating to such species is provided in Appendix A.

5. Methodology

5.1 Desk Study

Contextual information was gathered as part of a desk study undertaken prior to the start of field surveys. Such information can identify protected or notable species which may occur within the Parish, as well as identifying statutory and non-statutory ecological sites within the Parish. Species records and the location of statutory and non-statutory nature conservation sites within the Parish Boundary were requested from Northumberland Wildlife Trust, and from the Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk). MAGIC was also used to assess the presence of priority habitats within the Parish boundary.

Additionally, 1:10,000 Ordnance Survey maps were consulted to help identify waterbodies or watercourses. This search reflects the potential for great crested newts to utilise terrestrial habitat up to 500m from their breeding ponds and also helps determine the potential for other riparian or semi-aquatic species which will move away from a watercourse to be present (e.g. otter *Lutra lutra*).

It should be noted that an absence of records is likely to reflect an absence of survey data and cannot be taken as confirmation that a particular species is not present in the site or surrounding area.

5.2 Field Survey

5.2.1 Habitats

Several sites within Eglingham Parish were identified by the Parish Council for survey. The sites comprise areas of private property, woodlands, and some areas of farmland along watercourses. The sites surveyed were:

- Great Wood
- Eglingham Burn – Eglingham to Bannamoor
- Blossom Plantation

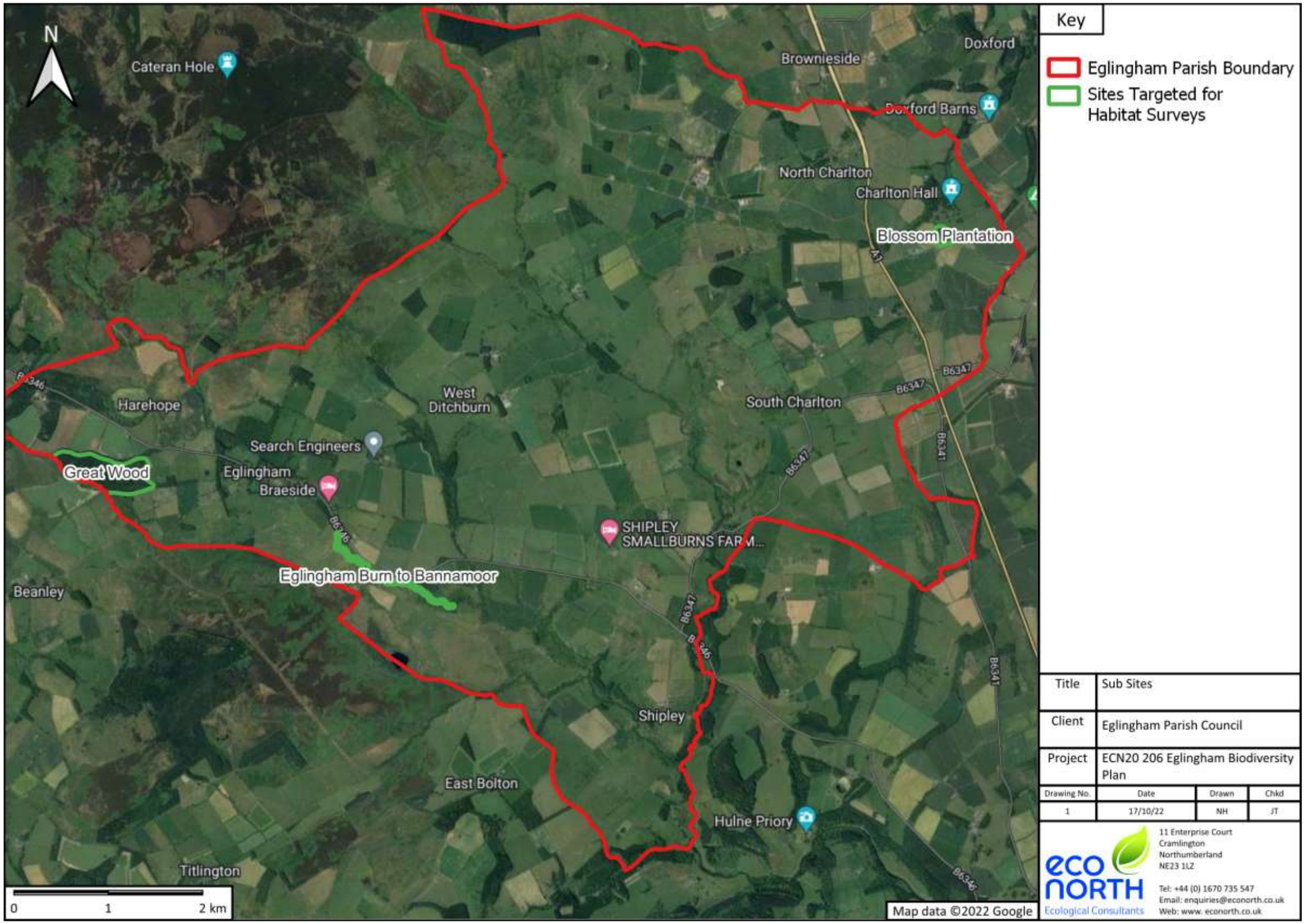
Mapping of the habitats within the site followed the Phase 1 habitat survey methodology outlined in the 2016 edition of the 'Handbook for Phase 1 habitat survey' by the Joint Nature Conservation Committee (JNCC). This follows a standardised system which can be easily interpreted, with habitats and boundary features correlating to one of around ninety set definitions. Target notes were used to record further information regarding features of interest, or specific habitats or features identified during the survey which do not closely match any of the Phase 1 habitat criteria.

For efficiency in the field, where stretches of watercourses were surveyed, habitats were recorded within a 20m buffer of the watercourse. Figure 2 below presents the locations of the habitat survey areas.

Plant species were identified in accordance with Rose (2006) and Stace (2019). A search was also conducted for presence of Schedule 9 invasive non-native plant species such as Japanese knotweed *Fallopia japonica* and Himalayan balsam *Impatiens glandulifera*.

The results of the Phase 1 habitat survey are shown in Section 6.2.

Figure 2: Sites Selected for Targeted Habitat Surveys



5.2.2 Protected and Notable Species

Throughout the field surveys, searches were made for field signs indicating the presence of protected and notable species, including but not being limited to those species listed in Section 4.2.

5.3 Assessment of Value

The botanical value of the habitats on site and the value of the site for protected species, as determined through the extended Phase 1 habitat survey, were based on the criteria published by the Chartered the Institute of Ecology and Environmental Management (CIEEM) in 2018 (http://www.cieem.net/ecia-guidelines-terrestrial-). Each feature was classified as being as one of the following levels of value:

- International.
- National.
- Regional/County.
- City/District/Borough.
- Local.
- Low.

Examples of different ecological features meeting each of these criteria are outlined in Appendix D.

6. Baseline Conditions

6.1 Desk Study

6.1.1 Designated Sites

Table 1 shows those designated sites identified through the desk study as lying within 2km of the site boundary.

Table 1: Designated Sites within 2km

Designated Site	Distance & Direction from Site	Reasons for Designation	Ecological Value
Bewick & Beanley Moor Site of Special Scientific Interest (SSSI)	Partially located within Parish boundary north and south of Eglingham village.	The Bewick and Beanley Moors SSSI is designated for a diverse array of upland habitats, some of which bridge between typical lowland and upland habitats. The site is dominated by wet heath. A depression in the landform has resulted in the development of bog and mire habitats and are intermediate between blanket bogs and true basin mire. The site is also designated for its highly diverse amphibian assemblage, which consists of 5 of the 7 native UK species.	National
Tweed Catchment Rivers England: Till Catchment SSSI	Designation covers the River Breamish, which forms part of the extreme western end of the Parish boundary	The Till Catchment Rivers are clean and of high conservation and ecological value. The vegetation shows natural succession from mineral-poor upland streams to more mineral rich lowland rivers. The SSSI contains internationally important communities of water crowfoot *Ranunculus* sp., and a unique population of the diatom *Didymosphenia* in England in the headwaters of the Cheviot. The Till catchment also contains important habitat for otter *Lutra lutra*. In addition, the Till catchment is one of the most important fisheries in England, supporting large migrations of Atlantic salmon *Salmo salar*, and all three native species of lamprey (brook lamprey *Lampetra planeri*, river lamprey *Lamprey fluviatilis,* and sea lamprey *Petromyzon marinus*).	National
River Tweed Special Area of Conservation (SAC)	Designation overlaps with the Till Catchment SSSI	The River Tweed SAC covers 3,742.65ha in England and Scotland. The site is designated for the presence of Annex 1 habitats (under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019), namely water courses of plain to montane levels with river water-crowfoot *Ranunculion fluitantis* and *Callitricho - Batrachion* vegetation. Stream water-crowfoot *Ranunculus penicillatus* subsp. *pseudofluitans* occurs at its most northerly location along with a range of other water-crowfoot species. The SAC is also designated for the presence of two Annex 2 species, namely Atlantic salmon and otter. The River Tweed is highly accessible to salmon and supports the full range of salmon life-history types. The river system extensive habitats for all aspects of the otter's life cycle, with a large system of tributaries for foraging. The River Tweed SAC citation lists three Annex 2 species as qualifying features, but these are not listed as a primary reason for site selection. These are the three British species of lamprey, sea lamprey brook lamprey, and river lamprey.	International

Designated Site	Distance & Direction from Site	Reasons for Designation	Ecological Value
Hulne Park Local Wildlife Site (LWS)	Designation overlaps the southern-most part of the Parish boundary with Denwick and Hedgeley Parishes	Hulne Park is designated for its notable woodland, grassland, and parkland, with the parkland forming one of the most extensive areas of the habitat in Northumberland. The site is also designated for diverse avian and insect communities. The River Aln that flows through the site, as well as its tributaries, including the Eglingham Burn, are noted for records of otter and presence of the native, white-clawed crayfish *Austropotomobius pallipes*.	County
Statutory Designated Sites: SSSI, SAC, SPA (Special Protection Area) Non-Statutory Designated Sites: LWS			

6.1.2 Protected and Notable Species

A range of protected and notable species were identified through the desk study as having been recorded within Eglingham Parish, with the earliest record in the data set obtained from ERIC NE being from 1750.

The table below presents the number of records of protected or notable species, split by taxa. This includes historic records (i.e. those made prior to 2010).

For the ease of this report, recent records (i.e. those records from 2010 to present) are discussed in more depth below. Only records returned from the desk study are discussed, although anecdotal evidence from the council suggests higher numbers of species are present within the Parish.

A summary of the below information is provided in Appendix E. Please note that records of birds in Appendix E are restricted to those listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) only.

Table 2: Data Search Results (Summary)

Broad Taxon	Description	Number of Species	Number of Records	Total Number of Species
Herpetofauna	Amphibians	2	3	5
	Reptiles	3	42	
Birds	Passerines (Songbirds)	47	382	82
	Raptors & Owls	9	41	
	Non-Passerines (Gulls, Waders, Waterfowl, Game Birds)	26	224	
Fish	Bony Fish (Actinopterygii)	6	76	≥9
	Jawless Fish (Agnatha)	≥3	19	
Higher Plants	Ferns (Polypodiophyta)	1	1	87
	Flowering Plants (Angiosperma)	82	470	
	Non-Flowering Plants (Gymnosperma)	2	26	
Fungi		7	9	7
Invertebrates	Crustaceans (Crustacea)	1	15	114
	Beetles (Coleoptera)	2	2	
	Mayflies (Ephemeroptera)	1	1	
	Flies (Diptera)	1	1	
	Caddis Flies (Trichoptera)	1	1	
	Butterflies & Moths (Lepidoptera)	19	94	
Lichens		30	77	30
Lower Plants	Clubmosses	1	2	23
	Mosses	22	60	
Mammals	Bats	≥7	24	≥19
	Deer	2	18	
	Brown Hare	1	22	
	Mustelids (Otter, Badger, Mink, Stoat, Weasel)	5	52	
	Squirrel (including Red & Grey	2	90	
	Water Shrew	1	1	
	West European Hedgehog	1	7	
		Total	1,760	287
N.B. ≥ is used where records were not made to species level and therefore may be higher than indicated				

Mammals

Bats

There are 18 records of bats within the Parish between 2010 and 2021, with a maximum of 8 species confirmed. These species are common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus*, noctule *Nyctalus noctula*, Natterer's bat *Myotis nattereri*, whiskered/Brandt's bat *Myotis mystacinus / M. brandtii* (N.B. these species are difficult to distinguish, and the records may relate solely to one species or to both), and an unidentified *Myotis* species. Soprano pipistrelle, brown long-eared bat, noctule, and Natterer's bat are listed on the Northumberland BAP (Biodiversity Action Plan).

The records of bats primarily relate to foraging and commuting individuals, though there are some records of roosts within the Parish. The largest roost relates to a property within Eglingham Village and was an emergence of 52 soprano pipistrelles. It is considered that the number of records of bats within the Parish will likely be due to a lack of survey effort as opposed to a lack of bats themselves. Granted EPSML (European Protected Species Mitigation Licences) records indicate the presence of several other known roosts, relating to common and soprano pipistrelle, brown long-eared bat, and Daubenton's bat within the Parish.

While no specific data on bat populations it can reasonably be assumed that populations may be up to county level ecological value.

Otter

There are 4 records of otter *Lutra lutra* within the Parish, the most recent of which was made in 2017 at Shipley Burn Bridge. The record relates to a spraint found beneath the bridge and indicates that otters are

present on the catchment. Otters are also considered present on Eglingham Burn, River Breamish, and Shipley Burn. Otters are listed on the Northumberland BAP, as well as the National BAP.

While no specific data on otter populations is available the link with sites designated for otter populations within the parish mean that the populations may be up to international value.

Badger

There are 4 recent records of badger *Meles meles* within the Parish. Locations of these records are not discussed here, as the species is liable to persecution. Badger setts are considered present within the Parish, however.

While no specific data on badger populations is available it can reasonably be assumed that populations may be up to county level ecological value within the parish.

Red Squirrel

There are 18 records of red squirrel *Sciurus vulgaris* within the Parish and was reported most recently in 2015.

While no specific data on red squirrel populations it can reasonably be assumed that populations may be up to regional level ecological value given the known restricted range and threatened status of the species.

BAP Mammals

Both Brown Hare *Lepus europaeus* and west European hedgehog *Erinaceus europaeus* are included on the National BAP list, whilst the hedgehog is also included in the Northumberland BAP. There are 16 records of brown hare and 6 of hedgehog, with the most recent records being made in 2019 and 2020 respectively.

While no specific data on mammal populations it can reasonably be assumed that populations may be up to county level ecological value.

Other Mammals

Several other species of mammal (that are not specially protected) present within the Parish boundary include roe deer *Capreolus capreolus*, stoat *Mustela erminea*, and weasel *Mustela nivalis*. These species are locally and nationally widespread and are therefore of lesser conservation status than those species listed as National or Local BAP species, or those protected by other legislation.

Birds

The data search returned records of 82 species of birds within Eglingham Parish. As birds are well recorded by both amateur and professional ornithologists, there are a wealth of records available for this taxon. In

addition, many species are covered under several sections of legislation. This section will not discuss these at length, but a full summary is presented in Appendix E.

Amphibians

There are recent records of only two amphibians within the Parish. These are common toad *Bufo bufo* and common frog *Rana temporaria*, with the most recent records being from 2017 and 2014. Common toad is listed as part of the National BAP.

While no specific data on amphibian populations it can reasonably be assumed that populations may be up to local level ecological value.

Reptiles

There are records of three species of reptile in Eglingham Parish, all of which are listed on the National BAP. These species are slow-worm *Anguis fragilis* (2 records), common lizard *Zootoca vivipara* (26 records), and adder *Vipera berus* (12 records).

While no specific data on reptile populations it can reasonably be assumed that populations may be up to county level ecological value given the restricted range of reptiles throughout much of Northumberland.

Fish

There are recent records of two fish species within the Parish, namely sea trout *Salmo trutta trutta* and brook lamprey *Lampetra planeri*. Sea trout are a migratory species of the native brown trout *Salmo trutta* and are listed on the Northumberland Local BAP. Brook lamprey are listed under Annex II of the Habitats Directive.

Given the links with sites designated for migratory fish populations within the parish mean that the populations may be up to international value where they are associated with the River Till catchment. Populations associated with non-designated catchments are likely to be of county value.

Crustacea

There are only records of one species of crustacean within Eglingham Parish – white-clawed crayfish *Austropotomobius pallipes*, with the most recent being reported in 2017. The species is protected under the

Northumberland BAP, National BAP, and is also listed under Annex II of the Habitats Directive and populations are under severe threat.

While no specific data on white-clawed crayfish populations are available it can reasonably be assumed that populations may be up to regional level ecological value given the known restricted range and threatened status of the species within the UK.

BAP Insects

The data search returned records of 12 species of insect listed on the National BAP. Of these 12 species, 9 are moths and 3 are butterflies. The BAP moths include Flounced Chestnut *Agrochola helvola*, Brown-spot Pinion *Agrochola litura*, Green-brindled Crescent *Allophyes oxyacanthae*, Mouse Moth *Amphipyra trgopoginis*, Centre-barred Sallow *Atethemia centrago*, Sallow *Cirrhia icteritia*, Autumnal Rustic *Hydraecia micacea*, Rosy Rustic *Hydraecia micacea*, and Shaded Broad-bar *Scotopteryx chenopodiata*. The BAP butterflies include Small Heath *Coenonympha pamphilus*, Wall Brown *Lasiommata megera*, and Latticed Heath *Chiasmia clathrata*.

Invasive Non-Native Species

There are records of invasive non-native species that are listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended). Under this legislation, it is an offence to plant/release a species, or otherwise cause such species to establish in the wild. There are records of seven such species in Eglingham Parish. Of these six species, four are plants and two are mammals. The plants include rhododendron *Rhododendron ponticum*, giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, montbretia *Crocosmia x crocosmiiflora*, and yellow archangel *Lamiastrum galeobdolon argentatum*. The mammals reported include grey squirrel *Sciurus carolinensis* and American mink *Mustela vison.*

Notable and Priority Habitats

Information on priority habitats was accessed via MAGIC. The data is presented with a low degree of confidence in the identification and comes from a variety of sources, including stewardship applications and Ordnance Survey data.

Ancient Woodland

Ancient woodland is a woodland that has had continuous woodland cover since at least 1600 AD. The woodlands may or may not have been managed by coppicing or selective felling. There are three areas designated as ancient woodland in Eglingham Parish, the largest being Hannah's Wood (5.44ha) on the slopes of Harehope Hill (central grid reference NU 08508 20471).

Two other areas are designated as ancient woodland. These are fragments of another woodland site approximately 1.5km east of Eglingham Village. These fragments cover approximately 0.9ha and form part of a larger woodland that is partially designated as Plantation on Ancient Woodland Sites (PAWS). This

priority habitat is similar to ancient woodland, however the original tree cover has been felled and replaced with plantation woodland, typically in the last century and with conifers. Within the same larger woodland, these areas cover approximately 2.90ha.

Great Wood (central grid reference NU 09316 19414) ca. 800m west of Eglingham Village represents is the largest PAWS woodland in the Parish, at 29.4ha.

This habitat is considered to be of up to county level ecological value.

Deciduous Woodland

Deciduous woodland is a habitat of principal importance listed under Section 41 of the NERC (Natural Environment and Rural Communities) Act (2006). This priority habitat is fairly widespread in Eglingham Parish, with larger extents located around Eglingham Village, particularly Great Wood, Harehope Hill, Eglingham Hill (central grid reference NU 12534 19470). Some of these areas are sections of other larger woodlands that are designated as PAWS or ancient woodland sites.

This habitat is considered to be of up to county level ecological value.

Wood Pasture & Parkland

Wood pasture and parkland is a habitat that is listed on the National BAP. The majority of this habitat is noted with fairly low confidence due to the data sources used (i.e. from local historic maps dating back as far as 1860). The largest area of this habitat is Hannah's Wood (on Harehope Hill, which is also designated as a PAWS site and as the deciduous woodland priority habitat). Other areas designated as this habitat are located in the south of the Parish (within or adjacent to Hulne Park, central grid reference NU 14790 15740), and to the northeast of the Parish around Charlton Hall (central grid reference NU 17790 22240).

This habitat is considered to be of up to county level ecological value.

Lowland Heath

There are two patches of lowland heath located in the Parish, one near Kimmer Lough in the south (6.4ha, central grid reference NU 12761 17997), and one at Hollinsheugh Hill near South Charlton (0.5ha, central grid reference NU 15642 19843). Lowland heath is a particularly uncommon habitat in Northumberland and is a habitat of principal importance under the NERC Act (2006). The habitat is characterised by the presence of heather, grasses, with some gorse scrub and trees typically on nutrient poor acidic soils.

This habitat is considered to be of up to county level ecological value.

Upland Heath

Upland heath communities are similar in composition to lowland heath, but form over peat and more mineral soils that are also nutrient poor. This habitat is also not extensive within the Parish itself, but extensive areas

of this habitat border the Parish and form part of the Bewick and Beansley Moors SSSI. As such, the largest part of this habitat is located to the south of Bannamoor around Kimmer Lough (47ha, central grid reference NU 12503 17801). Another area of upland heath is located at Harehope Hill (approximately 10ha, central grid reference NU 09109 20739), with a further two areas near Haughterslaw in the north of the Parish (17ha, central grid reference NU 12585 23812).

This habitat is considered to be of up to county level ecological value.

Wax-cap Grassland

There are 11 records of wax-cap fungi within Eglingham Parish, and all records were made by the North East Fungus Study Group in Eglingham Village in 2014. The exact location of these records is unclear, as the grid references provided are only to six figures. One location is within the ground of the Church of St Maurice (NU 106 195). This first location reported records of seven species, including parrot wax-cap *Gliophorus psittacinus*, slimy wax-cap *Gliophorus irrigatus*, smoky spindles *Clavaria fumosa*, star pinkgill *Entoloma conferendum*, pink ballerina *Hygrocybe calyptriformis* var. *calyptriformis*, meadow wax-cap *Hygrocybe pratensis* var. *pratensis*, and snowy waxcap *Hygrocybe virginea* var. *virginea*. The second grid reference provided (NU 113 189), with records of four species. These species are star pinkgill *Entoloma conferendum*, lilac pinkgill *Entoloma porphyrophaeum*, silky nolanea *Entoloma sericeum*, and meadow wax-cap.

Wax-cap fungi are associated with nutrient-poor, unimproved grasslands which are typically more botanically diverse than those that receive agricultural improvement or are regularly mown. Wax-cap grasslands are therefore considered to be of conservation importance, with two SSSIs being designated for their fungi communities in England in 2019. This habitat is considered to be of up to county level ecological value.

6.2 Field Survey

Results of the phase 1 habitat surveys are presented below for each of the survey sites. Full details are provided on a per-site basis as, whilst the broad habitat classification may remain the same, species composition of such habitats is variable. Maps of each subsite are provided in Appendix B along with species tables.

6.2.1 Great Wood

Great Wood is an extensive area of woodland habitat comprising several different woodland habitat types. These include coniferous plantation woodland, broadleaved plantation woodland, mixed plantation woodland, and semi-natural broadleaved woodland. Tracks and rides throughout Great Wood are predominantly semi-improved neutral grassland, though a small area is categorised as ephemeral/short perennial vegetation over a gravel track. Much of Great Wood is a PAWS (Plantation on Ancient Woodland Site) woodland.

Coniferous Plantation Woodland

Coniferous plantation woodland is present on the northwestern side of Great Wood. The trees present include sitka spruce *Picea sitchensis*, Norway spruce *Picea abies*, Scots pine *Pinus sylvestris*, and larch *Larix deciduea*. The understory is somewhat limited with hawthorn *Crataegus monogyna* and holly *Ilex aquifolium* present. Due to the dense canopy, the ground layer is also somewhat sparse though deer grass *Tricophorum cespitosum* is present with common figwort *Scrophularia nodulosa* and wood sorrel *Oxalis acetosella*.

Broadleaved Plantation Woodland

Broadleaved plantation woodland is present in three similar compartments in the woodland. The species present include oak *Quercus robur*, horse chestnut *Aesculus hippocastaum*, elder *Sambucus nigra*, sycamore *Acer pseudoplatanus*, common cherry *Prunus avium*, ash *Fraxinus excelsior*, rowan *Sorbus aucuparia*, and beech *Fagus sylvatica*. The understory contains hawthorn, elder, holly, and dogwood *Cornus sanguinea*, whilst the ground layer features bracken, bramble, wood avens *Geum urbanum*, hemp nettle *Galeopsis tetrahit*, raspberry *Rubus idea*, common figwort, chickweed *Stellaria media*, red campion *Siliene diocia*, cinquefoil sp. *Potentilla* sp., perforate St John's wort *Hypericum perforatum*, and honeysuckle *Lonicera periclymenum*.

Mixed Planation Woodland

Mixed plantation woodland forms part of the northern edge of the forest and a small section of the southern part of the forest. The section in the south of the woodland is mature, with a mix of species present. The section contains more conifer species than broadleaved species, though more than 10% of the trees present are broadleaves therefore categorizing these sections as mixed.

The other section, on the north side of the site, leans more heavily towards broadleaved in nature but has greater than 10% conifers and so is categorized as mixed. This second section is much younger, primarily containing densely packed saplings. Trees present include: silver birch, rowan, elder, and sitka spruce. The ground layer in the second area is dominated by bracken *Pteridium aquilinum*. This area was too dense to fully survey.

Semi-Natural Broadleaved Woodland

Much of the southern section of the woodland is semi-natural broadleaved woodland. Many trees are mature, with some younger trees also present. Tree species present include oak *Quercus robur*, horse chestnut *Aesculus hippocastaum*, elder *Sambucus nigra*, sycamore *Acer pseudoplatanus*, common cherry *Prunus avium*, ash *Fraxinus excelsior*, rowan *Sorbus aucuparia*, beech *Fagus sylvatica*, and hazel *Corylus avellana*. The understorey is sparse, but contains some silver birch saplings, hawthorn, and elder. The ground layer, whilst sparse due to the dense canopy, is quite diverse and contains several ancient woodland species, indicating that the wood is recovering well. The ground flora contains limited bracken, hemp nettle, cinquefoil sp., figwort, wood sorrel, red campion, herb Robert, lesser celandine, and bluebell *Hyacinthoides non-scripta*.

Semi-Improved Neutral Grassland

Semi-improved neutral grassland is present along the tracks across the woodland. Species noted included wavy hair grass *Deschampsia flexuosa,* Yorkshire fog *Holcus lanatus,* soft rush *Juncus effusus,* brome sp. *Bromus sp.,* cock's foot *Dactylis Glomerata,* spear thistle *Cirsium vulgare,* marsh thistle *Cirsium palustre,* common nettle *Urtica dioica,* curly dock *Rumex crispus,* broadleaved dock *Rumex obtusifolius,* wood rush

Luzula sp., wood sorrel *Oxalis acetosella,* hedge woundwort *Stachys sylvatica*, hedge parsley *Torilis spp.,* bird's-foot trefoil *Lotus corniculatus,* creeping buttercup *Ranunculus repens,* herb-Robert *Geranium robertianum,* lesser celandine *Ficaria verna,* spurge sp. *Euphorbia sp.,* comfrey *Symphytum officinale,* foxglove *Digitalis sp.,* and selfheal *Prunella vulgaris.*

Ephemeral/Short Perennial Vegetation

This habitat type is present along an access track leading to the center of the woodland from the east side of the wood. Cats ear, spurge sp., dandelion sp., and ribwort plantain are colonising the gravel substrate.

6.2.2 Eglingham Burn – Eglingham to Bannamoor

This survey area comprised land within 20m of the Eglingham Burn from the water treatment works outside the village to the end of Bannamoor Farm land. The habitats present comprise several types of grassland, woodland, and scrub typical of low-lying pastureland. The Eglingham burn and tributary's support good native, white-clawed crayfish populations and the presence of otter, spraint was found on site along the Eglingham Burn, indicating that otter are present in the area.

Watercourse

Eglingham Burn remains relatively shallow throughout the upstream reach of the area surveyed, comprising shallow riffle structures with some deeper pools on the bends. The Burn deepens towards Bannamoor Farm. A small fall is located downstream of the farm. The watercourse is somewhat choked with vegetation in the upstream reaches, with reed canary grass *Phalaris arundinacea*, soft rush, common nettle, marsh thistle *Cirsium palustre*, marsh woundwort *Stachys palustris*, valerian *Valeriana officinalis*, and seep monkeyflower *Mimulus guttata*. The bankside botanical interest typically grades into grassland habitats.

Semi-Improved Neutral Grassland

Much of the vegetation within the survey area is classed as semi-improved neutral grassland. The habitat is lightly grazed with a relatively tall sward. Species recorded include included Tufted hairgrass *Deschampsia cespitosa,* meadow foxtail *Alopecurus pratensis,* cocks' foot *Dactylis Glomerata,* Yorkshire fog *Holcus lanatus,* bent grass *Agrostis sp.,* soft rush *Juncus effusus,* broadleaved dock *Rumex obtusifolius*, nettle *Urtica dioica,* spear thistle, *Cirsium vulgare*, marsh thistle *Cirsium palustre,* creeping thistle *Cirsium arvense,* ragwort *Senecio jacobaea,* woodrush *Luzula sp.,* willowherb sp., *Epilobium sp.,* red campion *Silene dioica,* herb-Robert *Geranium robertianum,* harebell *Campanula rotundifolia,* red clover *Trifolium pratense,* forget-me-not*., Myosotis sp.,* valerian *Valeriana officinalis,* coltsfoot *Tussilago farfara,* a vetch sp. *Vicia sp.,* bluebell *Hyacinthoides non-scripta*, and germander speedwell *Veronica chamaedrys.*

Improved Grassland

Where areas of fields are more heavily grazed, the sward is shorter and less diverse. Species noted included crested dogstail *Cynosurus cristatus,* perennial rye grass *Lolium perenne,* Yorkshire fog *Holcus lanatus,*

ribwort plantain *Plantago lanceolata,* sheep sorrel *Rumex acetosella,* white clover *Trifolium repens,* common mouse-ear *Cerastium fontanum,* and dandelion *Taraxacum* sp.

Marshy Grassland

One field surveyed contains an area of marshy grassland. The patch is located at the base of a shallow slope where water gathers. The area is dominated by soft rush, with Yorkshire fog, marsh thistle, and broadleaved dock.

Semi-Natural Broadleaved Woodland

Semi-natural broadleaved woodland lines much of the Burn and is predominantly over semi-improved neutral grassland. Some sections of the woodland are located on steep slopes that lead down into the watercourse. The species of tree present include alder (the dominant species), ash, sycamore, hawthorn, and elder. The woodland located on the steep sections is mature and well-shaded and north facing, resulting in a sparse ground layer.

A larger area of this habitat is located at the downstream are of the subsite is more diverse. Whilst the dominant tree species are the same as the rest of the habitat recorded in this subsite, the understorey and ground layers include elders, gorse, bramble, raspberry, honeysuckle, common sorrel *Rumex acetosa*, cow parsley *Anthricus sylvestris*, great woodrush *Luzula sylvatica*, wood avens *Geum urbanum*, bracken *Pteridium aquilinum*, wavy hairgrass *Deschampsia flexuosa*, rush sp. *Juncus* sp., bittercress sp. *Cardimine* sp., cuckooflower *Cardamine pratensis*, nipplewort *Lapsana communis*, bettony *Betonica officinalis*, common dog violet *Viola riviniana*, barren strawberry *Potentilla sterilis*, horsetail sp. *Equisetum* sp., crosswort, red campion, meadowsweet *Filipendula ulmaria*, opposite-leaved golden saxifrage *Chrysoplenium oppositifolium*, and wood sorrel *Oxalis acetosella*.

Mixed Planation Woodland

At the downstream end of the subsite is a small block of mixed plantation woodland. The plantation contains sitka spruce, larch *Larix decidua*, alder, ash, sycamore, and silver birch. Gorse *Ulex europaeus* and hawthorn form a limited understorey, whilst the ground layer was sparse due to a lack of light.

6.2.3 Blossom Plantation

Blossom Plantation is located at Charlton Hall and forms part of a “glamping” site, comprising several luxury pods set in a semi-natural countryside landscape. The central feature of the site is a medium sized pond fringed with taller grassland, around which is an area of amenity grassland. The east of the site contains

semi-natural broadleaved woodland, whilst the west boundary comprises scrub. A field to the south of the main site comprises improved grassland.

Open Water

The sites central feature is a medium sized pond. There is no emergent vegetation in the centre of the pond, though the southern half of the pond contains large amounts of duckweed *Lemnoideae* sp.

Swamp

A small area of swamp is present on the northern end of the pond at the outfall. The area contains a small amount of bullrush *Typha lattifolia*, with marsh thistle and soft rush (which is abundant).

Semi-Improved Neutral Grassland

The pond is fringed by semi-improved neutral grassland and areas on the eastern side of the site. Species present include cock's foot, Yorkshire fog, bent grass sp. *Agrostis* sp., common nettle, meadow buttercup *Ranunculus acris*, common sorrel, marsh thistle, spear thistle, common mouse ear *Cerastium fontanum*, red campion, crosswort, and broadleaved dock The pond margin contains these species, as well as soft rush and hairy willowherb *Epilobium hirsutum*.

Amenity Grassland

Amenity grassland is the dominant habitat on site. The habitat contains Yorkshire fog, cocks foot, and perennial rye grass *Lolium perenne*, which is the dominant grass species. Also present include sow thistle, broadleaved dock, white clover, creeping buttercup, creeping thistle, yarrow, germander speedwell, daisy, and redshank *Persicaria maculosa*. The habitat is regularly mown, resulting in reduced diversity and a short sward.

Plantation Broadleaved Woodland

An area of broadleaved plantation woodland is present in the eastern and southern sides of the site. The terse are predominantly the same age. The species present include oak *Quercus robur*, sycamore, lime sp. *Tilia* sp., ash, and elder. A smaller, younger plantation is also present, and is comprised of silver birch, rowan, ash, field maple, and beech. The ground layer contains crosswort, red campion, garlic mustard *Alliaria petiolata*, nettle, Yorkshire fog, bent grass sp. *Agrostis* sp., and cock's foot.

Scattered Trees

Scattered trees are positioned around the site. The trees vary in age, from mature to immature. Species include English oak, silver birch, alder, larch, holly, sycamore, ash, and a species of elm *Ulmus* sp.

7. Assessment of Value

The data search indicates that Eglingham Parish hosts a diverse array of protected species, supported by priority habitats that are spread across the Parish. Though the habitats in question may be fragmented and

separated by large areas of agricultural land, hedgerows and habitat islands provide links that allow animals to commute and disperse across the Parish.

The desk study has returned records of 287 notable and protected species that are of conservation significance, as well as highlighting areas of habitat that support such species.

An assessment of the potential ecological value of species known to be present in the parish is set out in Section 6 above, and detailed consideration of the value each species and habitat in each study area is set out in Tables 3-5, below, using the criteria outlined in Section 5.3 and Appendix D.

Table 3: Value of Ecological Features Recorded at Great Wood

Ecological Feature	Ecological Value	Justification
Broadleaved Plantation Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area.
Coniferous Plantation Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area.
Mixed Plantation Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area.
Semi-Natural Broadleaved Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area.
Ephemeral / Short Perennial	Low	Habitat can be readily created over a short period of time.
Semi Improved Neutral Grassland	Low	Support a small range of locally common species and can be readily created over a short period of time.
Invasive Plant Species	N/A	No Schedule 9 species recorded on site
Bats	Local	The woodland provides suitable foraging and commuting habitat
Great Crested Newt	Low	No records of the species present
Otter	Local	Scrub and woodland habitats on site may offer cover and shelter to otter
Reptiles	Low	The semi-improved grassland and short ephemeral/perennial habitat is considered potentially suitable for reptiles providing opportunities for foraging and sheltering, though the suitability is reduced by the bordering woodland that restricts opportunities for basking
White-clawed Crayfish	Negligible	No watercourse on site

Ecological Feature	Ecological Value	Justification
Water Vole	Negligible	No watercourse on site
Red Squirrel	Borough	Woodland habitats provide good quality foraging and drey creation opportunities for red squirrel.
Badger	Borough	Woodland habitats provide good quality habitat for foraging and set creation
Birds	Borough	The habitats on site are likely to support a small range of locally common breeding species, as the dense scrub habitats offer breeding and foraging opportunities for many passerine species.
Migratory Fish	Negligible	No watercourse on site

Table 4: Value of Ecological Features Recorded at Eglingham to Bannamoor

Ecological Feature	Ecological Value	Justification
Semi-Improved Neutral Grassland	Low	Support a small range of locally common species and can be readily created over a short period of time.
Improved Grassland	Low	Species-poor intensively grazed agricultural grasslands, which are widespread and can be readily recreated over a short time period.
Marshy Grassland	Low	Support a small range of locally common species and can be readily created over a short period of time.
Semi-Natural Broadleaved Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area
Mixed Plantation Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area
Arable	Low	Cultivated land with low botanical interest.
Dense Scrub	Local	Small areas of habitat which support locally common species and may be readily recreated over short periods of time, and/or which are widely replicated in the local area.
Invasive Plant Species	N/A	*Rhododendron* present on site
Bats	Borough	The watercourse provides a strong potential commuting route for bats, woodland along the banks provides sheltered foraging opportunities.
Great Crested Newt	Negligible	No records of the species present

Ecological Feature	Ecological Value	Justification
Otter	County	The river is suitable for foraging and commuting otter, and scrub and woodland habitats on site may offer shelter to otter, spraint was found on site along the watercourse, suggesting that otter are present in the area.
Reptiles	Borough	Habitats provide sub-optimal sheltered foraging opportunities for common reptile species. The bankside habitats along the river also provide a potential commuting route for such species throughout the wider area.
White-clawed Crayfish	County	The Eglingham burn and its tributaries supports good populations of native white-clawed crayfish throughout
Water Vole	Low	No evidence of water vole was found although suitable habitat exists for their presence
Red Squirrel	Low	There is a small area of broadleaved woodland on site, which could provide potential habitat for red squirrel, however this is isolated from larger areas of woodland
Badger	Local	Habitats on site provide some potential foraging and sett creation opportunities, however no field signs were recorded during the survey.
Birds	Local	The habitats on site are likely to support a small range of locally common breeding species, as the woodland and dense scrub habitats offer breeding and foraging opportunities for many passerine species.
Migratory Fish	National	The Eglingham burn and its tributaries supports both migratory and non-migratory spawning fish

Table 5: Value of Ecological Features Recorded at Blossom Plantation

Ecological Feature	Ecological Value	Justification
Open water	Local	Habitats which may be recreated, but with a longer lead-in period.
Swamp	Low - Local	Priority habitat, however is present in a very small area on site.
Semi-Improved Neutral Grassland	Low	Support a small range of locally common species and can be readily created over a short period of time.
Amenity Grassland	Low	Large areas of mown/intensively managed habitats with a limited species diversity and which can be readily recreated over a short time period.
Plantation Broadleaved Woodland	Local	Habitats which may be recreated, but with a longer lead-in period. Habitats of similar or higher quality present throughout the local area

Ecological Feature	Ecological Value	Justification
Dense Scrub	Local	Small areas of habitat which support locally common species and may be readily recreated over short periods of time, and/or which are widely replicated in the local area.
Hard Standing / Built Development	Negligible	Man-made habitats lacking botanical interest.
Invasive Plant Species	N/A	No Schedule 9 species present on site
Bats	Low-Local	Improved and amenity grassland provide sub-optimal foraging habitat for bat species, although the woodland to the east of the site and the hedge to the west provide a potential commuting route.
Great Crested Newt	Low-Local	Pond on site, semi-improved grassland provides potentially suitable terrestrial habitat but no records of the species present
Otter	Low	Amenity grassland offers little shelter to otter, no field signs were recorded.
Reptiles	Low	The semi-improved grassland habitat is considered potentially suitable for reptiles, including for foraging, sheltering, and basking. However, the dominant habitats, amenity grassland and improved grassland, are considered to be generally unsuitable due to the low sward height and high disturbance levels resulting from regular maintenance (mowing and grazing), leaving reptile species vulnerable to predation and physical harm
White-clawed Crayfish	Negligible	No watercourse on site
Water Vole	Negligible	No watercourse on site
Red Squirrel	Low	There is a small area of broadleaved woodland on site, which could provide potential habitat for red squirrel, however this is isolated from larger areas of woodland
Badger	Local	The dense scrub and woodland edge on site provide some sub optimal foraging and sett creation opportunities, however no field signs were recorded during the survey.
Birds	Local	The habitats on site are likely to support a small range of locally common breeding species, as the woodland and dense scrub habitats offer breeding and foraging opportunities for many passerine species.
Migratory Fish	Negligible	No watercourse on site

8. Biodiversity Action Plan

This Action Plan will provide general Parish-wide measures to enhance biodiversity, as well as actions to complete to enhance key areas for biodiversity within the Parish. The Plan will detail appropriate measures and identify a method for monitoring and reporting on progress over several years.

The main objectives of the Action Plan are to:

- Protect, conserve, and enhance existing landscape and ecological features.
- Create habitats of higher botanical and biodiversity value than those present before.
- To enhance existing wildlife corridors.
- Ensure the successful establishment and continued growth through to maturity of all new trees, shrubs and other planting identified on the planting plans.
- Provide a mechanism whereby management practises can be monitored, reviewed and where necessary altered to suit the changing needs of the landscape over time.

8.1 General Parish Wide Measures

The Phase One study found that Eglingham Parish hosts a diverse array of protected species, supported by priority habitats that are spread across the Parish. However, many of these habitats are fragmented and separated by large areas of agricultural land. General parish wide measures include:

- Enhance existing or create wildlife corridors. This can be done by the creation or enhancement of linear features, such as hedgerows, treelines, and road verges, connecting areas of high value habitat.
- Community outreach to educate landowners of the value of wildlife and how they can help improve biodiversity within their own land.
- Promote 'No Mow May', encouraging people to not cut their grass, allowing a longer sward height and hence greater diversity of wildflowers to establish, alternatively organise grass cutting on a rotation to create a mosaic of grass heights and leave a few patches of coarse tussocky grass to provide cover for invertebrates such as butterflies. Decorative desire lines / short crop grass trails may be cut through such areas to provide public access, where necessary.
- Consider creating a policy that all new developments must include bee bricks, swift bricks.
- Landowners should consider installing general use bat boxes on mature trees within their gardens, to provide roosting opportunities for the local bat community. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., 1FF Schwegler 1FF, 2FN, 1FD, 1FW, and Vivara Pro Miramare bat boxes – other models are available).
- Landowners should consider installing bird boxes on mature trees within their gardens, including a mix of open fronted and access-hole units to provide immediate nesting habitat for cavity nesting

bird species. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., Schwegler 1B, 2GR, 2H, 3S – other models are available).

- Avoid using pesticides, herbicides, slug and snail pellets and chemical fertilisers.
- Inform the local community of the biodiversity value of the local area. For example, installing signage explaining the wildlife value of an area and why it's being managed in a particular way.
- Encourage the creation of refugia / hibernacula in gardens. This provides shelter to overwintering invertebrates, hibernating amphibians, and small mammals. These are ideally positioned within and adjacent to or within any sheltered habitat. Hibernacula can also be constructed from a wide array of materials including, bricks and stone, topsoil, and leaflitter.
- Encourage people to record wildlife sightings, especially bats, and send records to the local record office.
- When considering planting new species in your garden, always consider native nectar-rich species.
- Encourage people to join local wildlife groups, including local bat groups and wildlife trusts, or consider setting up new clubs within schools and communities.

8.2 Measures for Great Wood

Great Wood is an extensive area of woodland habitat comprising several different woodland habitat types. These include coniferous plantation woodland, broadleaved plantation woodland, mixed plantation woodland, and semi-natural broadleaved woodland. Tracks and rides throughout Great Wood are predominantly semi-improved neutral grassland, though a small area is categorised as ephemeral/short perennial vegetation over a gravel track. Much of Great Wood is a PAWS (Plantation on Ancient Woodland Site) woodland. Table 6 shows the priority habitats present on site.

Table 6: Site Habitats Targeted for Inclusion in the BAP

Habitat Type	Northumberland BAP Priority Habitat	UK BAP Priority Habitat (NERC S41)	Present on Site	Included in site BAP
Coniferous Plantation Woodland	Native Woodland		✓	✓
Broadleaved Plantation Woodland			✓	
Mixed Plantation Woodland			✓	✓

Semi-Natural Broadleaved Woodland		✓	✓	
Semi-improved Neutral Grassland		✓	✓	
Ephemeral. short perennial			✓	

Coniferous Plantation Woodland

- Some of areas of the coniferous plantation woodland were very dense, which lead to the understorey and ground flora being somewhat limited due to lack of light. Therefore, it is recommended to progressively thin the canopy and plant a native understorey mix over areas of damaged / bare ground.
- Where trees have been lost due to Storm Arwen, woodland cover and species richness could be improved through a managed planting regime of native tree (deciduous dominant mix) and scrub species.
- Consider including a mix of high pollen bearing and fruiting tree species such as cherry *Prunus spp*, crab apple *Malus sylvestris*, and rowan *Sorbus spp* to benefit invertebrates as well as overwintering and breeding birds.

Mixed Plantation Woodland

- The understorey of the mixed plantation woodland was dominated by bracken, it is recommended that this be managed, to allow a more diverse range of flora to grow. This could be done in an ecologically sensitive way, such as using hand clearance or patch grazing. Local conservation groups, community groups, or youth groups, may be contacted for help with hand clearance.
- Solar-powered, electric, anti-deer fencing could be installed to protect young trees from predation.

Wildlife

- Deadwood could be retained on site, by leaving some felled trees in log piles on site and positioned within a suitable location to provide benefits for insects and create hibernacula for wildlife, either as vertical features or integrated into log piles. Hibernacula can also be constructed from a wide array of materials including, bricks and stone, topsoil, and leaflitter.
- Glades and clearings could be created within the woodland, to provide potential basking spots for invertebrates and reptiles.
- Consider creating areas of bare ground, using aggregate or sand within clearings for the benefit of ground dwelling invertebrates, such as solitary bees, wasps, ants, beetles, as well as basking insects such as butterflies and day moths.
- Consider installing general use bat boxes, and boxes suitable for use by maternity and/or hibernation roosts on mature trees along the woodland edge, to provide roosting opportunities for the local bat community. Units constructed of woodcrete / woodstone material are recommended

due to improved durability and life span (e.g., 1FF Schwegler 1FF, 2FN, 1FD, 1FW, and Vivara Pro Miramare bat boxes – other models are available).

- Bird boxes could be installed on mature trees, including a mix of open fronted and access-hole units to provide immediate nesting habitat for cavity nesting bird species. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., Schwegler 1B, 2GR, 2H, 3S – other models are available).

Community outreach and engagement could also be considered on the site, with the creation of a publicly accessible nature trail to raise awareness of the biodiversity on the site, and wider area. Local schools or other community groups could be invited to visit the site for educational purposes or during biodiversity days. Site enhancements may also include the establishment of an outdoor and/or indoor classroom facility.

8.3 Measures for Eglingham Burn to Bannamoor

This survey area comprised land within 20m of the Eglingham Burn from the water treatment works outside the village to the end of Bannamoor Farmland. The habitats present comprise several types of grassland, woodland, and scrub typical of low-lying pastureland. The Eglingham burn and tributary's support good native, white-clawed crayfish populations and the presence of otter spraint was found on site along the Eglingham Burn, indicating that otter are present in the area. Table 7 shows the priority habitats present on site.

Table 7: Site Habitats Targeted for Inclusion in the BAP

Habitat Type	Northumberland BAP Priority Habitat	UK BAP Priority Habitat (NERC S41)	Present on Site	Included in site BAP
Semi-improved Neutral Grassland		✓	✓	
Improved Grassland		✓	✓	
Marshy Grassland		✓	✓	
Semi-Natural Broadleaved Woodland	Native Woodland	✓	✓	
Mixed Plantation Woodland			✓	
Watercourse	Rivers and Streams	✓	✓	

Improved Grassland

- Fencing could be installed to stop livestock from grazing right up to the watercourse, allowing the riparian habitats to better establish

Watercourse

- Further use of willow spiling to help protect the banks, should further erosion control measures be required to protect properties or infrastructure.
- Willows and alder could be planted on the bankside to aid bank stabilisation.
- Eglingham Burn supports populations of White-clawed crayfish and migratory fish. Both white-clawed crayfish and migratory fish, and a range of invertebrates would benefit from reducing grazing pressure right down to the burn where possible and increasing better established riparian vegetation. This could be achieved by amending fencing layouts allowing access to more limited sections of banksides OR restricting access altogether and installing pasture pumps to facilitate access to drinking water where required.

Wildlife

- Consider installing general use bat boxes, and boxes suitable for use by maternity and/or hibernation roosts on mature trees along the woodland edge, to provide roosting opportunities for the local bat community. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., 1FF Schwegler 1FF, 2FN, 1FD, 1FW, and Vivara Pro Miramare bat boxes – other models are available). Riparian corridors are typically high value fo bats and so the choices of use / uptake are higher.
- Bird boxes could be installed on mature trees, including a mix of open fronted and access-hole units to provide immediate nesting habitat for cavity nesting bird species. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., Schwegler 1B, 2GR, 2H, 3S – other models are available).

8.4 Measures for Blossom Plantation

Blossom Plantation is located at Charlton Hall and forms part of a “glamping” site, comprising several luxury pods set in a semi-natural countryside landscape. The central feature of the site is a medium sized pond fringed with taller grassland, around which is an area of amenity grassland. The east of the site contains semi-natural broadleaved woodland, whilst the west boundary comprises scrub. A field to the south of the main site comprises improved grassland. Table 8 shows the priority habitats present on site.

Table 8: Site Habitats Targeted for Inclusion in the BAP

Habitat Type	Northumberland BAP Priority Habitat	UK BAP Priority Habitat (NERC S41)	Present on Site	Included in site BAP
Open Water	Ponds, Lakes and Reservoirs	✓	✓	
Swamp	Fen, Marsh and Swamp	✓	✓	
Semi-Improved Neutral Grassland		✓	✓	
Amenity Grassland			✓	
Broadleaved Plantation Woodland	Native Woodland		✓	✓
Scattered Trees	Trees and Hedges		✓	

Amenity Grassland

- The site has a large area of amenity grassland, which is regularly mown, resulting in reduced diversity and a short sward. This could be planted with a higher diversity species mix, with some areas left to grow longer in order to let wildflowers establish. This could be formed by incorporating a scalloped edge to longer grassland.
- Grass cutting could take place twice a year to allow a longer sward and higher diversity of wildflowers to grow.
- Control of undesirable species (thistles, dock etc) could be undertaken by hand pulling or spot-treatment between April and June where required.

- A larger area could be left around the pond, where no grass cutting takes place. This will allow more marginal plant species to grow and furthermore increase habitat opportunities for invertebrates associated with freshwater margins such as dragonfly and damselfly..

Scattered Trees and Shrubs

- A lot of non-native species are present across the site. More native shrub species should be considered during subsequent planting or landscape maintenance.
- More native scattered trees could be planted between cabins. Consider including a mix of high pollen bearing and fruiting tree species to benefit invertebrates as well as overwintering and breeding birds.
- Consider removing the bamboo that is present, as this can become invasive and spreads easily without ongoing maintenance.
- The vegetation on the island is very sparse. Consider planting more native tree and scrub species to increase habitat complexity whilst providing a focal interest.

Open water

- Consider using barley straw bales as a way to help prevent algal blooms and increase water clarity. Used bales may be used as mulch or locally composted.
- Seasoned aqualogs / coir rolls could be used to fill in the gaps of marginal vegetation and facilitate the rapid establishment of marginal plant species. A selection of native species mixes are available. Plant plugs are a suitable alternative, however herbivory from waterfowl may hamper successful establishment.

Wildlife

- Consider the creation of additional refugia / hibernacula to provide shelter to overwintering invertebrates, hibernating amphibians, and small mammals. These are ideally positioned within and adjacent to or within any sheltered habitat. Hibernacula can also be constructed from a wide array of materials including, bricks and stone, topsoil, and leaflitter.
- Consider installing general use bat boxes, and boxes suitable for use by maternity and/or hibernation roosts on mature trees along the woodland edge, to provide roosting opportunities for the local bat community. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., 1FF Schwegler 1FF, 2FN, 1FD, 1FW, and Vivara Pro Miramare bat boxes – other models are available).
- Bird boxes could be installed on mature trees, including a mix of open fronted and access-hole units to provide immediate nesting habitat for cavity nesting bird species. Units constructed of woodcrete / woodstone material are recommended due to improved durability and life span (e.g., Schwegler 1B, 2GR, 2H, 3S – other models are available).

8.5 Monitoring / Evaluation

Monitoring is an integral part of the management plan process and used to judge whether objectives for the site are being met by the management activities undertaken. As there is a limited budget for this, it is recommended that all works undertaken are logged, with informal monitoring undertaken, where it is practical. There could be a discussion between the respective landowners and the council during Parish meetings for example, mentioning what has been implemented with some photos for reference and a quick summary of things that have established in subsequent meetings.

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Appendix A – Key Legislation

Table A1: Overview of Key Legislation

Legislation	Key Features
The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019	The Habitat Regulations transpose *Council Directive 79/409/EEC on the Protection of Wild Birds* (the EC Birds Directive 1979) and *Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna* (the EC Habitats Directive 1992) into UK law. The Birds Directive was amended in 2009, becoming Directive 2009/147/EC. The Habitat Regulations make it an offence (with certain exceptions) to deliberately capture, disturb, kill or trade in those animal species listed in Schedule 2, or to pick, cut, uproot, collect, destroy or trade in those plant species listed in Schedule 4. The EC Birds Directive requires member states to establish and monitor Special Protection Areas (SPAs) for all rare or vulnerable species included in Annex I, as well as for all regularly occurring migratory species, with key focus on wetlands of international importance. Annex I and II of the Habitats Directive respectively list those habitats and species for which a similar network of sites – Special Areas of Conservation (SACs) – must be established and monitored. Collectively, SPAs and SACs form a network of pan-European protected areas which are referred to as 'Natura 2000' sites.
The Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Bern Convention)	The Bern Convention was adopted in 1979 and ratified by the UK Government in 1982. The principal aims of the Convention are to ensure the conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species). Members of the European Community meet their obligations via the Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.
The Wildlife and Countryside Act 1981 (as amended)	The Wildlife and Countryside Act consolidates and amends existing national legislation to implement the requirements of the Bern Convention and the Birds Directive throughout Great Britain. The Act is the primary UK mechanism for the designation of statutory ecological sites - Sites of Special Scientific Interest (SSSIs) - and the protection of individual species listed under Schedules 1, 2, 5, 6 and 8 of the Act, each of which is subject to varying levels of protection. Schedule 9 of the Act also lists those plant species which it is an offence to plant or otherwise cause to grow in the wild, while Schedule 14 prevents the release into the wild or sale of certain plant and animal species which may cause ecological, environmental or socio-economic harm.
Natural Environment and Rural Communities Act 2006	The NERC Act places a duty on public bodies to consider and conserve biodiversity through the exercise of their functions and includes a range of measures to strengthen the protection of both habitats and wildlife. The Act makes provision in respect of

Legislation	Key Features
	biodiversity, pesticides harmful to wildlife, protection of birds and invasive non-native species.
The Countryside and Rights of Way (CRoW) Act 2000	The CRoW Act, which applies to England and Wales only, strengthens the provisions of the Wildlife and Countryside Act 1981 (as amended), both in respect of protected species and statutory ecological sites, the latter primarily relating to the management and protection of SSSIs. It also provides for better management of Areas of Outstanding Natural Beauty (AONBs). The Act places a statutory obligation on public bodies to further the conservation of biodiversity through the exercise of their functions, thereby providing a statutory basis to the Biodiversity Action Plan (BAP) process. Section 74 of the Act lists those habitats and species of principal importance in England.
The Wild Mammals (Protection) Act 1996	This Act provides protection for wild mammals from acts of cruelty. An offence is committed if any person mutilates, kicks, beats, nails, or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.
The Protection of Badgers Act 1992	This consolidates the existing legislation relating to the protection of badgers, and makes it an office in England and Wales to wilfully kill, injure or take a badger (or attempt to do so) and affords protection to both the animals themselves and their setts.
Hedgerow Regulations 1997	The Hedgerow Regulations are intended to protect important countryside hedgerows from destruction or damage in England and Wales.

Table A2: Overview of Key Protected Species Legislation and Protection

Species	Key Legislation and Protection
Bats	All European bat species are protected in Britain under the Habitat Regulations 2019. All British bat species are included on Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and the whole of Section 9 applies to European bat species. The above collectively prohibits the following: • Deliberately or recklessly capturing, injuring, taking or killing of a bat. • Deliberately or recklessly harassing a bat. • Intentionally or recklessly disturbing of a bat in its place of rest (roost), or which is used for protection or rearing young. • Deliberately or recklessly damaging, destroying or obstructing access to any resting place or breeding area used by bats. • Deliberately or recklessly disturbing a bat in any way which is likely to significantly affect the local populations of the species, either through affecting their distribution or abundance, or affect any individuals' ability to survive, reproduce or rear young. • Possession or advertisement/sale/exchange of a bat (dead or alive) or any part of a bat. Bats are also protected by the Wild Mammals (Protection) Act 1996. Licenses are issued by Natural England for any works which may compromise the protection of European

Species	Key Legislation and Protection
	protected species, including bats. This license is required irrespective of whether the works require planning permission. Selected species are also listed in the UK BAP.
Great Crested Newt	Great crested newts receive the same levels of protection under British and European law as is afforded to bats (see above). Great crested newts are included on the UK BAP.
Otter	Otter are protected under British and European law, receiving the same level of protection as bats (see above). Otter are also listed as a priority species in Appendix II of the Bern Convention. Otter are included on the UK BAP.
Freshwater Pearl Mussel	Freshwater pearl mussels are protected under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended), which make it an offence to: • Intentionally kill, injure or take the species. • Intentionally or recklessly damage, destroy, or obstruct access to any place used by the species for shelter or protection, or to disturb the species while they are using such a place. The species is also included in Appendix III of the Bern Convention and is listed on the UK BAP.
Reptiles	Common reptiles (grass snake, adder, common lizard and slow-worm) receive partial protection under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to: • Intentionally or recklessly kill or injure these species. • Sell, offer or advertise for sale, possess or transport for the purposes of sale these animals, whether alive or dead, or any part thereof. In addition, smooth snake and sand lizard are also protected under the Habitat Regulations 2019, which makes it an offence to: • Intentionally or recklessly kill, injure, capture, disturb or handle these species. • Intentionally or recklessly damage or destroy any place used by these species for shelter, protection, resting or breeding. • Intentionally or recklessly obstruct access to any place used for shelter, protection, resting or breeding by these species. All 6 species of native reptile are listed on the UK BAP.
White-clawed Crayfish	White-clawed crayfish are partially protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to: • Take white-clawed crayfish. • Sell, possess or transport white-clawed crayfish for the purpose of sale. • Advertise the buying or selling of white-clawed crayfish. The species is also protected under the Habitats Directive, being listed under Annex II and V, and is included on the UK BAP.
Water Vole	Water voles are protected under Schedules 5 and 6 of the WCA 1981 (as amended). This makes it an offence to: • Intentionally kill, injure or take water voles.

Species	Key Legislation and Protection
	• Possess or control the species. • Damage or destroy any place used by water vole for shelter or protection. • Disturb water vole while they occupy such places of shelter. • Sell, possess or transport water vole for the purpose of sale. • Advertise the buying or selling of water vole. The species is also protected under the Wild Mammals (Protection) Act 1996 and is listed on the UK BAP.
Red Squirrel	Red squirrels are protected under Schedules 5 and 6 of the WCA 1981, receiving the same level of protection as water vole. The species is also protected under the Wild Mammals (Protection) Act 1996 and listed on the UK BAP.
Badger	Badger are protected under the Protection of Badgers Act 1992, which makes it an offence to: • Knowingly kill, capture, injure or disturb any individual. • Intentionally damage or destroy a badger sett, or any part thereof. • Obstruct access to an area which is used for breeding, resting or shelter. • Disturb a badger while it is using any place used for breeding, resting or shelter. The species is also protected by the Wild Mammals (Protection) Act 1996 and receives partial protection through inclusion on Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).
Birds	With the exception of some species listed on Schedule 2, the majority of bird species are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly: • Kill, injure or take any wild bird. • Take, damage or destroy any nest which is in use or being built. • Take, damage or destroy the eggs of any such bird. Additional protection against disturbance at the nest is also afforded to any bird species listed on Schedule 1 of the Act. Selected bird species are also listed on the UK BAP.
Migratory Fish	Atlantic salmon and sea trout are protected under the Salmon and Freshwater Fisheries Act 1975, supplemented by the Salmon Act 1986. Both species also listed under the EC Habitats Directive 1992, Annexes IIa and V. All three species of lamprey receive a degree of legal protection, being listed under Annexes Iia and Va of the Habitats Directive. The conservation of species listed under Annex II of the Habitats Directive requires the designation of Special Areas of Conservation. Species listed under Annex V of the Directive are also considered to be of community interest and their taking in the wild and exploitation may be subject to management measures. River and sea lampreys, Atlantic salmon, European eel and brown/sea trout are listed on the UK BAP.

Appendix B – Field Survey Maps

Figure B1 – Habitat Map Great Wood

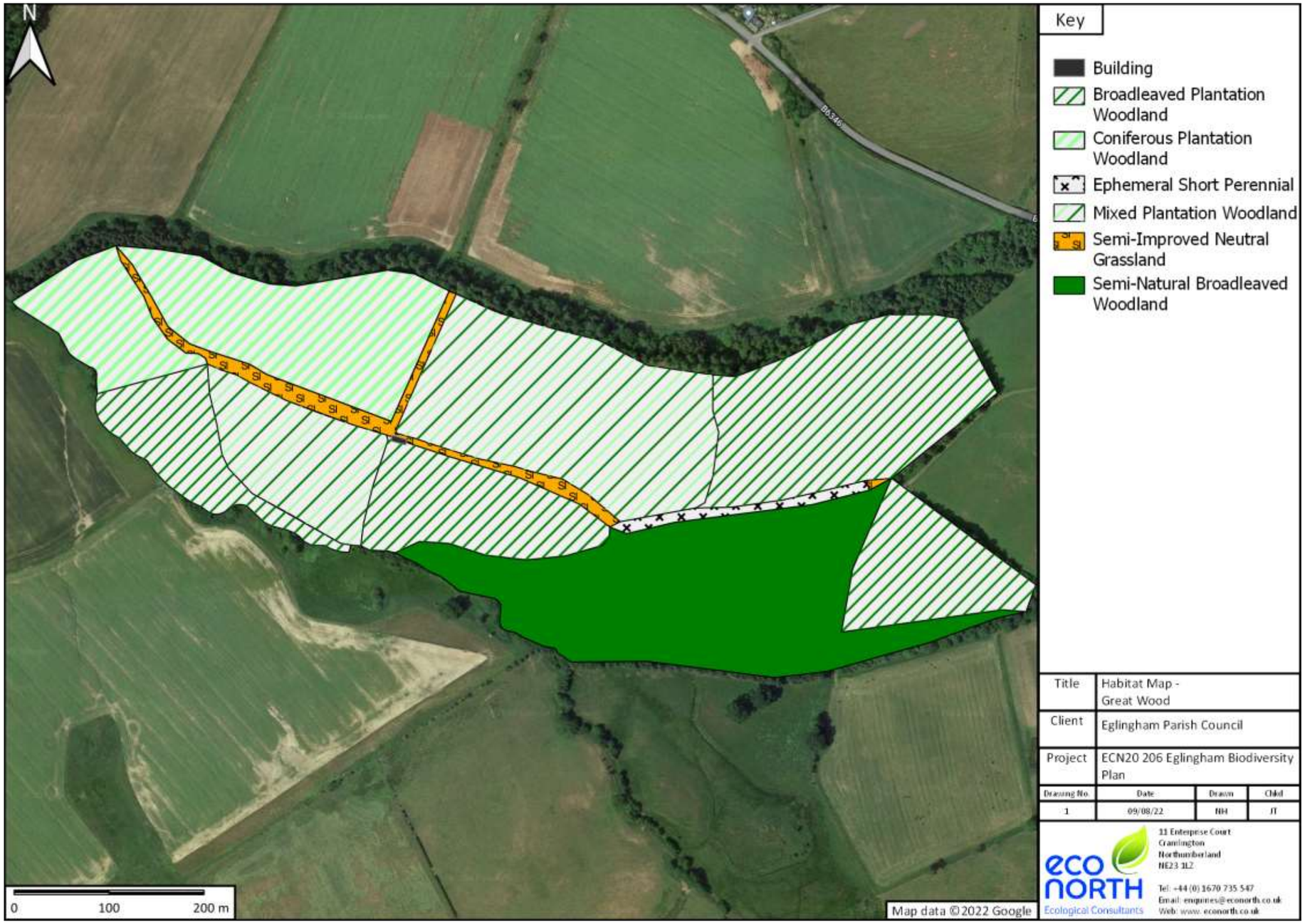


Figure B2 – Habitat Map Eglingham Burn - Eglingham to Bannamoor

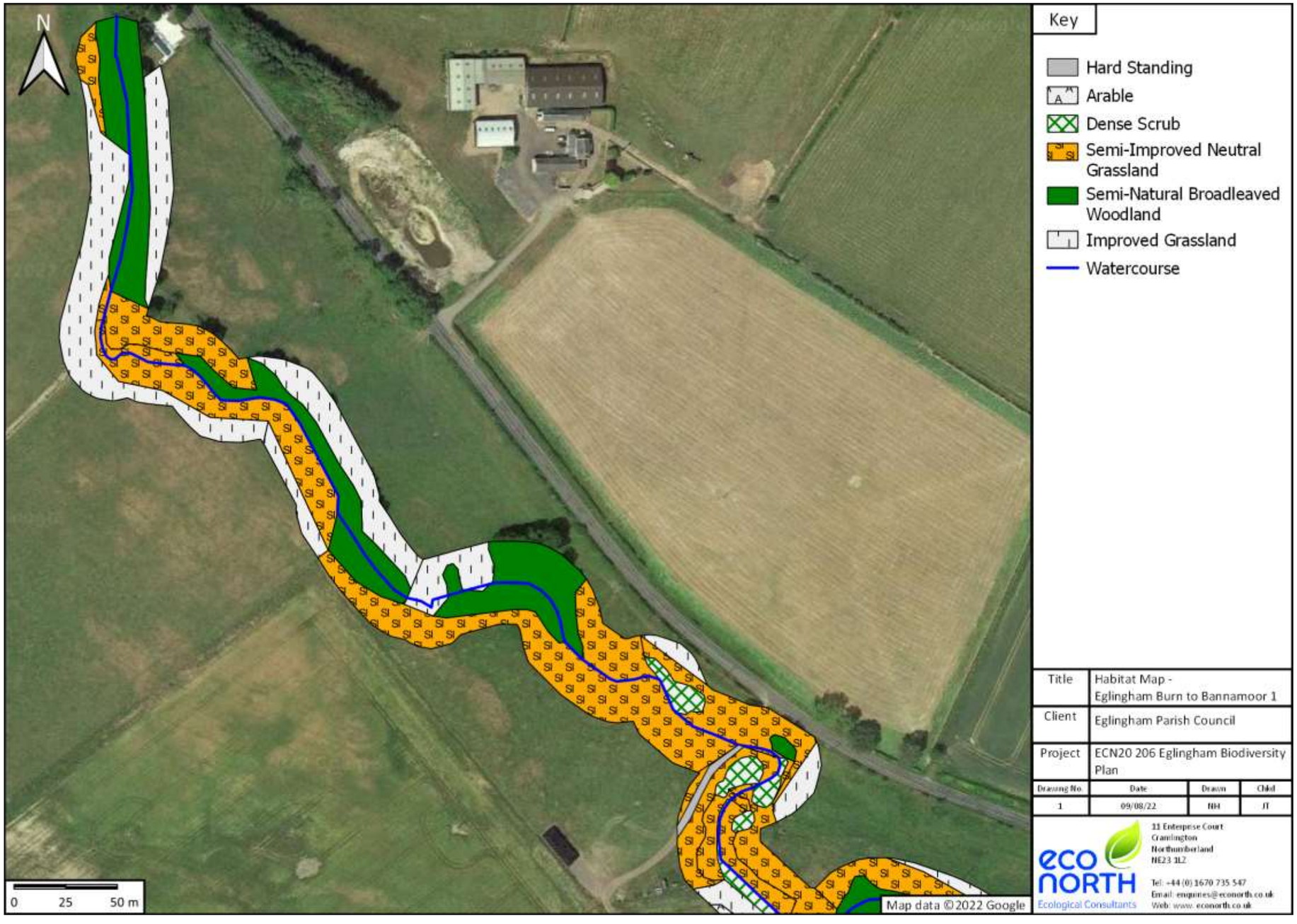


Figure B3– Habitat Map Eglingham Burn - Eglingham to Bannamoor

Figure B4– Habitat Map Eglingham Burn - Eglingham to Bannamoor

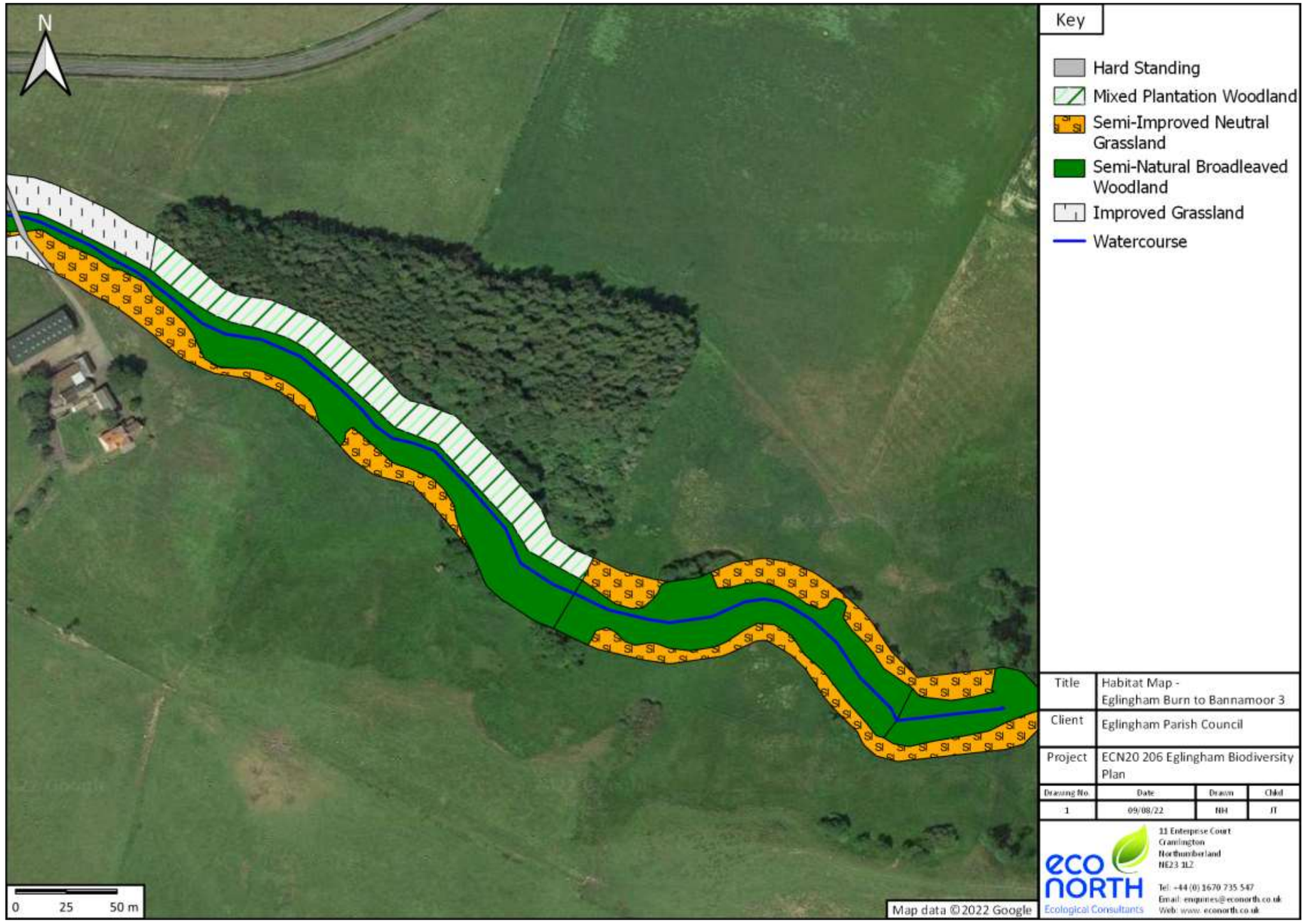
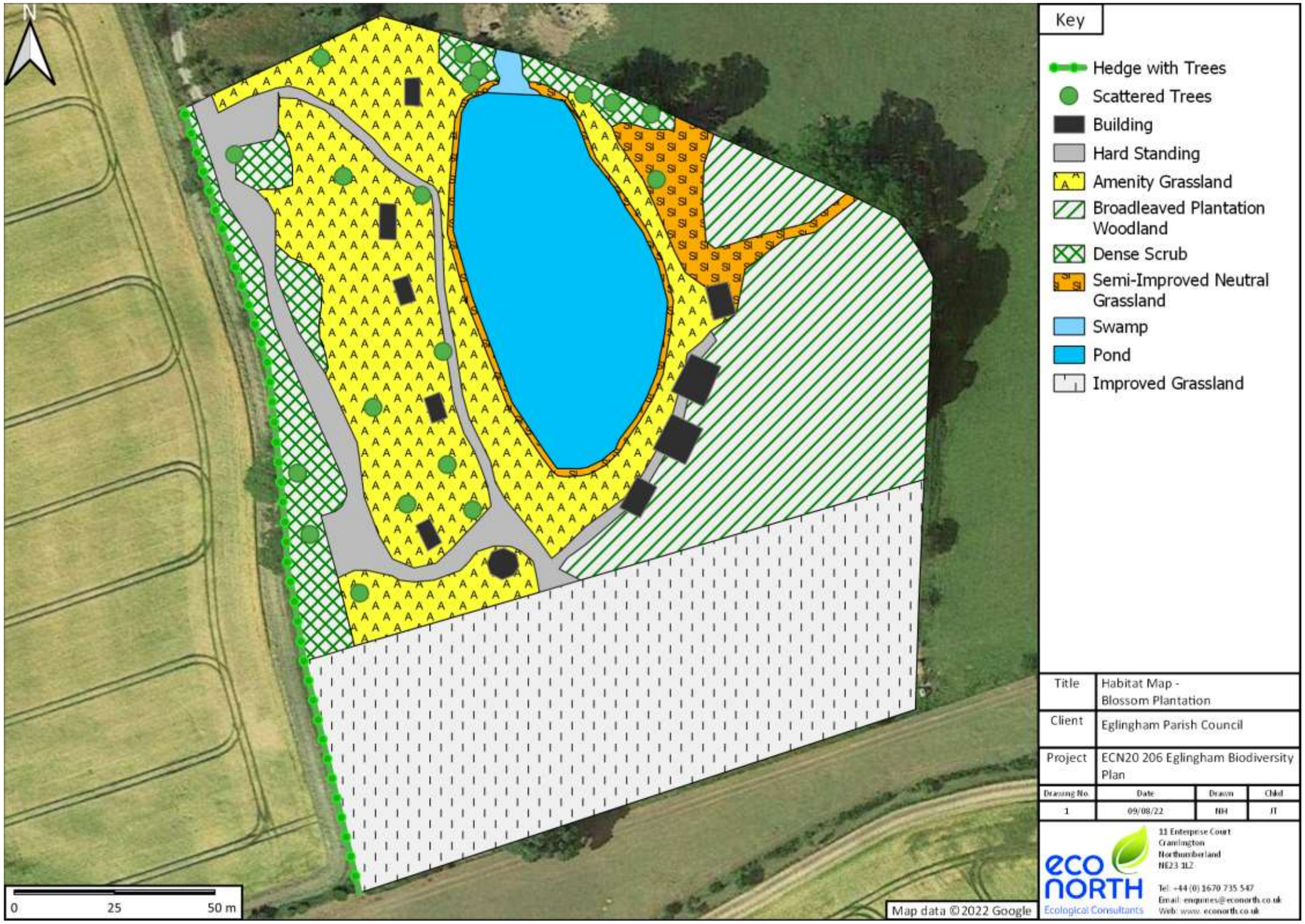


Figure B5 – Habitat Map Blossom Plantation



Appendix C –Species Lists

Table C1: Plant Species Lists Relating to Figure B1 – Great wood (see Appendix B)

Phase 1 Habitat Type	Common Name	Latin Name
Coniferous Plantation Woodland	Sitka spruce	*Picea sitchensis*
	Larch	*Larix decidua*
	Norway spruce	*Picea abies*
	Scots pine	*Pinus sylvestris*
	Hawthorn	*Crataegus monogyna*
	Holly	*Ilex aquifolium*
	Deer grass	*Trichoporum cespitosum*
	Figwort	*Scrophularia nodosa*
	Wood sorrel	*Oxalis acetosella*
Broadleaved Plantation Woodland	Oak	*Quercus sp.*
	Horse chestnut	*Aesculus hippocastanum*
	Elder	*Sambucus nigra*
	Sycamore	*Acer pseudoplatanus*
	Common cherry	*Prunus avium.*
	Ash	*Fraxinus excelsior*
	Rowan	*Sorbus aucuparia*
	Beech	*Fagus sylvatica*
	Hawthorn	*Crataegus monogyna*
	Holly	*Ilex aquifolium*
	Dogwood	*Cornus sanguinea*
	Bracken	*Pteridium aquilinum*
	Bramble	*Rubus fruticosus*
	Wood avens	*Geum urbanum*
	Red campion	*Silene dioica*
	Hemp nettle	*Galeopsis tetrahit*
	Raspberry	*Rubus idea*
	Figwort	*Scrophularia nodosa*
	Chickweed	*Stellaria media*
	Cinquefoil sp.	*Potentilla sp.*
	Perforate St John's wort	*Hypericum perforatum*

Phase 1 Habitat Type	Common Name	Latin Name
	Honeysuckle	*Lonicera periclymenum*
Mixed Plantation Woodland	Rowan	*Sorbus aucuparia*
	Silver birch	*Betula pendula*
	Elder	*Sambucus nigra*
	Sitka spruce	*Picea sitchensis*
	Bracken	*Pteridium aquilinum*
Semi-Natural Broadleaved Woodland	Oak	*Quercus sp.*
	Horse chestnut	*Aesculus hippocastanum*
	Elder	*Sambucus nigra*
	Sycamore	*Acer pseudoplatanus*
	Common cherry	*Prunus avium*
	Ash	*Fraxinus excelsior*
	Rowan	*Sorbus aucuparia*
	Beech	*Fagus sylvatica*
	Hazel	*Corylus avellana*
	Hawthorn	*Crataegus monogyna*
	Bracken	*Pteridium aquilinum*
	Hemp nettle	*Galeopsis tetrahit*
	Cinquefoil sp.	*Potentilla sp.*
	Figwort	*Scrophularia nodosa*
	Wood sorrel	*Oxalis acetosella*
	Red campion	*Silene dioica*
	Herb-Robert	*Geranium robertianum*
	Lesser celandine	*Ficaria verna*
	Bluebell	*Hyacinthoides non-scripta*
Semi-improved Neutral Grassland	Wavy hair grass	*Deschampsia flexuosa*
	Yorkshire fog	*Holcus lanatus*
	Soft rush	*Juncus effusus*
	Brome sp.	*Bromus sp*
	Cock's foot	*Dactylis Glomerata*
	Spear thistle	*Cirsium vulgare*
	Marsh thistle	*Cirsium palustre*

Phase 1 Habitat Type	Common Name	Latin Name
	Common nettle	*Urtica dioica*
	Curly dock	*Rumex crispus*
	Broadleaved dock	*Rumex obtusifolius*
	Wood rush	*Luzula sp.*
	Wood sorrel	*Oxalis acetosella*
	Hedge woundwort	*Stachys sylvatica*
	Hedge parsley	*Torilis sp.*
	Bird's-foot trefoil	*Lotus corniculatus*
	Creeping buttercup	*Ranunculus repens*
	Herb-Robert	*Geranium robertianum*
	Lesser Celandine	*Ficaria verna*
	Spurge sp.	*Euphorbia sp.*
	Comfrey	*Symphytum officinale*
	Foxglove	*Digitalis sp.*
	Selfheal	*Prunella vulgaris.*
Ephemeral/ Short perennial	Cats ear	*Hypochaeris radicata*
	Spurge sp.	*Euphorbia sp.*
	Dandelion sp.	*Taraxacum agg.*
	Ribwort plantain	*Plantago lanceolata*

Table C2: Plant Species Lists Relating to Figure B2-4 – Eglingham Burn (see Appendix B)

Phase 1 Habitat Type	Common Name	Latin Name
Semi-improved Neutral Grassland	Tufted hairgrass	*Deschampsia cespitosa*
	Meadow foxtail	*Alopecurus pratensis*
	Reed cahnary grass	*Phalaris arundinacea*
	Crosswort	*Cruciata laevipes.*
	Cocks foot	*Dactylis Glomerata*
	Yorkshire fog	*Holcus lanatus*
	Agrostis sp.	*Agrostis sp.*
	Soft rush	*Juncus effusus*

Phase 1 Habitat Type	Common Name	Latin Name
	Broadleaved dock	*Rumex obtusifolius*
	Common nettle	*Urtica dioica*
	Thistle sp.	*Cirsium sp.*
	Marsh thistle	*Cirsium palustre*
	Creeping thistle	*Cirsium arvense*
	ragwort	*Senecio jacobaea*
	Woodrush	*Luzula sp.*
	Marsh woundwort	*Stachys palustris*
	Willowherb sp.	*Epilobium sp.*
	Red campion	*Silene dioica*
	Herb-Robert	*Geranium robertianum*
	Harebell	*Campanula rotundifolia*
	Monkeyflower	*Mimulus sp*
	Red clover	*Trifolium pratense*
	Forget-me-not	*Myosotis sp.*
	Valerian	*Valeriana officinalis*
	Coltsfoot	*Tussilago farfara*
	Periwinkle	*Vinca sp.*
	Bluebell	*Hyacinthoides non-scripta*
	Speedwell	*Veronica sp.*
	Sweet vernal grass	*Anthoxanthum odoratum*
Improved Grassland	Crested dogstail	*Cynosurus cristatus*
	Perennial rye grass	*Lolium peren*
	Yorkshire fog	*Plantago lanceolata*
	Ribwort plantain	*Plantago lanceolata*
	Sheep sorrel	*Rumex acetosella*
	White clover	*Trifolium repens*
	Common mouse-ear	*Cerastium fontanum*
	dandelion	*Taraxacum* sp.
Semi-natural Broadleaved woodland	Alder	*Alnus glutinosa*
	Elder	*Sambucus nigra*
	Sycamore	*Acer pseudoplatanus*

Phase 1 Habitat Type	Common Name	Latin Name
	Ash	*Fraxinus excelsior*
	Hawthorn	*Crataegus monogyna*
	Rowan	*Sorbus aucuparia*
Dense Scrub	Gorse	*Ulex europaeus*

Table C3: Plant Species Lists Relating to Figure B5 – Blossom Plantation (see Appendix B)

Phase 1 Habitat Type	Common Name	Latin Name
Amenity Grassland	Perennial rye grass	*Lolium perenne*
	Yorkshire fog	*Holcus lanatus*
	Cocks foot	*Dactylis Glomerata*
	Redshank	*Persicaria maculosa*
	Sow thistle	*Sonchus oleraceus*
	Creeping thistle	*Cirsium arvense*
	Yarrow	*Achillea millefolium*
	Broadleaved dock	*Rumex obtusifolius*
	White clover	*Trifolium repens*
	Creeping buttercup	*Ranunculus repens*
	Daisy	*Bellis perennis*
	Germander speedwell	*Veronica chamaedrys*
Semi-Improved Neutral Grassland	Yorkshire fog	*Holcus lanatus*
	Cocks foot	*Dactylis Glomerata*
	Bent grass	*Agrostis sp.*
	Soft rush	*Juncus effusus*
	Sow thistle	*Sonchus oleraceus*
	Spear thistle	*Cirsium vulgare*
	Marsh thistle	*Cirsium palustre*
	Common nettle	*Urtica dioica*
	Common Sorrel	*Rumex acetosa*
	Broadleaved dock	*Rumex obtusifolius*
	Meadow buttercup	*Ranunculus acris*
	Common mouse-ear	*Cerastium fontanum*
	Hairy willowherb	*Epilobium hirsutum*

Phase 1 Habitat Type	Common Name	Latin Name
	Red campion	*Silene dioica*
Broad leaved plantation woodland	Silver birch	*Betula pendula*
	Alder	*Alnus glutinosa*
	Holly	*Ilex aquifolium*
	Oak	*Quercus sp*
	Sycamore	*Acer pseudoplatanus*
	Lime sp.	*Tilia sp.*
	Larch	*Larix decidua*
	Rowan	*Sorbus aucuparia*
	Ash	*Fraxinus excelsior*
	Field Maple	*Acer campestre*
	Beech	*Fagus sylvatica*
Scattered trees	Oak	*Quercus sp*
	Silver birch	*Betula pendula*
	Alder	*Alnus glutinosa*
	Larch	*Larix decidua*
	Holly	*Ilex aquifolium*
	Sycamore	*Acer pseudoplatanus*
	Ash	*Fraxinus excelsior*
	Elm	*Ulmus sp.*

Appendix D – Value of Ecological Receptors

Table D1: Examples of Ecological Receptors of Differing Value

Value	Examples
International	• An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, pSAC, Ramsar site) or an area which meets the designation criteria for such sites. • Internationally significant and viable areas of a habitat type listed in Annexe 1 of the Habitats Directive, or smaller areas of such habitat, which are essential to maintain the viability of a larger whole. • Any regularly occurring, globally threatened species. • A regularly occurring population of an internationally important species, which is threatened or rare in the UK, of uncertain conservation status • A regularly occurring, nationally significant population/number of any internationally important species.
National	• A nationally designated site (e.g. SSSI, NNR) or a discrete area which meets the published selection criteria for national designation (e.g. SSSI selection guidelines) irrespective of whether or not it has yet been notified. • A viable area of a UK BAP priority habitat, or smaller areas of such habitat which are essential to maintain the viability of a larger whole. • A regularly occurring significant number/population of a nationally important species e.g. listed on the Wildlife and Countryside Act 1981 (as amended). • A regularly occurring population of a nationally important species that is threatened or rare in the county or region. • A feature identified as being of critical importance in the UK BAP.
Regional/County	• Viable areas of key habitat identified in the Regional or County BAP or smaller areas of such a habitat, which are essential to maintain the viability of the larger whole. • Regional/county significant and viable areas of key habitat identified as being of regional value in the appropriate English Nature (now Natural England) Natural Area. • A regularly occurring significant population/number of any important species important at a regional/county level. • Any regularly occurring, locally significant population of a species which is listed in a Regional/County Red Data Book or BAP on account of its regional rarity or localisation. • Sites of conservation importance that exceed the district selection criteria but that fall short of SSSI selection guidelines.
City/District/Borough	• Areas of habitat identified in a District/City/Borough BAP or in the relevant Natural Area profile. • Sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves selected on District/City/Borough ecological criteria. • Sites/features that are scarce within the District/City/Borough or which appreciably enrich the District/City/Borough habitat resource. • A diverse and/or ecologically valuable hedgerow network.

Value	Examples
	• A population of a species that is listed in a District/City/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. • A regularly occurring, locally significant number of a District/City/Borough important species during key phases of its life cycle.
Local	• Areas identified in a Local BAP or the relevant natural area profile. • Sites/features which area scarce in the locality or which are considered to appreciably enrich the habitat resource within the local context, e.g. species-rich hedgerows. • Local Nature Reserves selected on Parish/Local ecological criteria. • Significant numbers/population of a locally important species e.g. one which is listed on the Local BAP. • Any species, populations or habitats of local importance.
Low	• Habitats of moderate to low diversity which support a range of locally and nationally common species, the loss of which can be easily mitigated.

Appendix E – Desk Study Results

Table E1: Protected Species Records within 2km

Species	Number of Records	Most Recent Record	On Site?	Level of Protection		
				HR 2019	WCA 1981	NERC /UK BAP
Barn Owl *Tyto alba*	3	2020	Yes	☐	☒	☒
Fieldfare *Turdus pilaris*	1	2010	Yes	☐	☒	☐
Hen Harrier *Circus cyaneus*	2	2014	Yes	☐	☒	☐
Merlin *Falco columbarius*	1	2011	Yes	☐	☒	☐
Peregrine *Falco peregrinus*	4	2013	Yes	☐	☒	☐
Whooper Swan *Cygnus cygnus*	1	2010	Yes	☐	☒	☐
Brown Long-eared Bat *Plecotus auritus*	2	2010	Yes	☒	☒	☒
Common Pipistrelle *Pipistrellus pipistrellus*	5	2015	Yes	☒	☒	☒
Soprano Pipistrelle *Pipistrellus pygmaeus*	5	2019	Yes	☒	☒	☒
Myotis	1	2010	Yes	☒	☒	☒
Natterer's Bat *Myotis nattereri*	1	2010	Yes	☒	☒	☒
Noctule Bat *Nyctalus noctula*	2	2010	Yes	☒	☒	☒
Whiskered/Brandt's Bat *Myotis mystacinus/brandtii*	2	2015	Yes	☒	☒	☒
Brown Hare *Lepus europaeus*	16	2020	Yes	☐	☐	☒
Eurasian Badger *Meles meles*	4	2018	Yes	☐	☐	☒
Eurasian Red Squirrel *Sciurus vulgaris*	18	2015	Yes	☐	☒	☒

Species	Number of Records	Most Recent Record	On Site?	Level of Protection		
				HR 2019	WCA 1981	NERC /UK BAP
European Otter *Lutra lutra*	4	2017	Yes	☒	☒	☒
West European Hedgehog *Erinaceus europaeus*	6	2019	Yes	☐	☐	☒
Common Frog *Rana temporaria*	2	2014	Yes	☐	☒	☐
Common Toad *Bufo bufo*	1	2017	Yes	☐	☒	☒
Adder *Vipera berus*	12	2015	Yes	☐	☒	☒
Common Lizard *Zootoca vivipara*	26	2015	Yes	☐	☒	☒
Slow-worm *Anguis fragilis*	2	2014	Yes	☐	☒	☒
Brook Lamprey *Lampetra planeri*	1	2017	Yes	☒	☐	☐
Sea Trout *Salmo trutta subsp. trutta*	1	2017	Yes	☐	☐	☒
White-clawed Crayfish *Austropotamobius pallipes*	2	2017	Yes	☐	☒	☒
Autumnal Rustic *Eugnorisma glareosa*	1	2013	Yes	☐	☐	☒
Brown-spot Pinion *Agrochola litura*	10	2013	Yes	☐	☐	☒
Centre-barred Sallow *Atethmia centrago*	1	2013	Yes	☐	☐	☒
Flounced Chestnut *Agrochola helvola*	2	2013	Yes	☐	☐	☒
Green-brindled Crescent *Allophyes oxyacanthae*	2	2013	Yes	☐	☐	☒
Latticed Heath *Chiasmia clathrata*	2	2013	Yes	☐	☐	☒

Species	Number of Records	Most Recent Record	On Site?	Level of Protection		
				HR 2019	WCA 1981	NERC /UK BAP
Mouse Moth *Amphipyra tragopoginis*	8	2013	Yes	☐	☐	☒
Rosy Rustic *Hydraecia micacea*	11	2013	Yes	☐	☐	☒
Sallow *Cirrhia icteritia*	2	2013	Yes	☐	☐	☒
Shaded Broad-bar *Scotopteryx chenopodiata*	1	2019	Yes	☐	☐	☒
Small Heath *Coenonympha pamphilus*	1	2010	Yes	☐	☐	☒
Wall Brown *Lasiommata megera*	4	2019	Yes	☐	☐	☒
Bluebell *Hyacinthoides non-scripta*	8	2015	Yes	☐	☒	☐
Blunt-leaved Bog-moss *Sphagnum palustre*	1	2011	Yes	☒	☐	☐
Fringed Bog-moss *Sphagnum fimbriatum*	1	2011	Yes	☒	☐	☐

Key:

HR 2019 – The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

WCA 1981 – The Wildlife and Countryside Act 1981 (as amended) (Bird species listed relate solely to those included on Schedule 1)

NERC – The Natural Environment and Rural Communities Act 2006

UK BAP – UK Biodiversity Action Plan

Table E2: Summary of Bird Records

Species	Number of Records	Most Recent Record	BoCC List	Level of Protection		
				N'Land BAP	WCA 1981	NERC /UK BAP
Barn Owl *Tyto alba*	3	2020	Green	☒	☒	☒
Blackbird *Turdus merula*	7	2016	Green	☐	☐	☐
Blackcap *Sylvia atricapilla*	4	2013	Green	☐	☐	☐
Black-headed Gull *Chroicocephalus ridibundus*	8	2012	Amber	☐	☐	☐
Blue Tit *Cyanistes caeruleus*	10	2014	Green	☐	☐	☐
Bullfinch *Pyrrhula pyrrhula*	6	2017	Amber	☒	☐	☐
Buzzard *Buteo buteo*	15	2013	Green	☐	☐	☐
Canada Goose *Branta canadensis*	2	2010	Green	☐	☐	☐
Carrion Crow *Corvus corone*	24	2013	Green	☐	☐	☐
Chaffinch *Fringilla coelebs*	16	2013	Green	☐	☐	☐
Chiffchaff *Phylloscopus collybita*	3	2013	Green	☐	☐	☐
Common Redpoll *Acanthis flammea*	3	2010	Green	☐	☐	☐
Common Gull *Larus canus*	1	2011	Amber	☐	☐	☐
Coot *Fulica atra*	2	2010	Green	☐	☐	☐
Cuckoo *Cuculus canorus*	7	2013	Red	☐	☐	☒
Curlew *Numenius arquata*	15	2013	Red	☐	☐	☒
Dipper *Cinclus cinclus*	1	2009	Amber	☐	☐	☐
Dunnock *Prunella modularis*	10	2013	Amber	☒	☐	☒
Fieldfare *Turdus pilaris*	1	2010	Red	☐	☒	☐

Species	Number of Records	Most Recent Record	BoCC List	Level of Protection		
				N'Land BAP	WCA 1981	NERC /UK BAP
Garden Warbler *Sylvia borin*	1	2011	Green	☐	☐	☐
Goldcrest *Regulus regulus*	1	2008	Green	☒	☐	☐
Goldeneye *Bucephala clangula*	2	2009	Amber	☒	☐	☐
Goldfinch *Carduelis carduelis*	1	2013	Green	☒	☐	☐
Goosander *Mergus merganser*	2	2012	Green	☐	☐	☐
Grasshopper Warbler *Locustella naevia*	1	2011	Red	☐	☐	☒
Great Black-backed Gull *Larus marinus*	1	2012	Amber	☐	☐	☐
Great Spotted Woodpecker *Dendrocopus major*	1	2010	Green	☐	☐	☐
Great Tit *Parus major*	1	2012	Green	☐	☐	☐
Grey Heron *Ardea cinerea*	5	2013	Green	☐	☐	☐
Grey Partridge *Pterdix pterdix*	3	2009	Red	☒	☐	☒
Greylag Goose *Anser anser*	18	2014	Amber	☐	☐	☐
Hen Harrier *Circus cyaneus*	3	2014	Red	☐	☒	☐
Herring Gull *Larus argentatus*	11	2013	Red	☐	☐	☒
House Martin *Delichon urbicum*	5	2012	Amber	☐	☐	☐
Jackdaw *Corvus monedula*	4	2011	Green	☒	☐	☐
Jay *Garrulus glandarius*	1	2010	Green	☐	☐	☐
Kestrel *Falco tinnunculus*	4	2013	Amber	☒	☐	☐

Species	Number of Records	Most Recent Record	BoCC List	Level of Protection		
				N'Land BAP	WCA 1981	NERC /UK BAP
Lapwing *Vaneullus vanellus*	10	2011	Red	☒	☐	☒
Lesser Black-backed Gull *Larus fuscus*	11	2013	Amber	☐	☐	☐
Lesser Redpoll *Acanthis cabaret*	8	2013	Red	☐	☐	☒
Linnet *Linaria cannabina*	15	2013	Red	☒	☐	☒
Little Owl *Athene noctua*	1	2016	Green	☐	☐	☐
Long-tailed Tit	2	2012	Green	☐	☐	☐
Mallard *Anas platyrhynchos*	21	2014	Amber	☐	☐	☐
Meadow Pipit *Anthus pratensis*	26	2013	Amber	☐	☐	☐
Merlin *Falco columbarius*	1	2011	Red	☐	☒	☐
Mistle Thrush *Turdus viscivorus*	4	2011	Red	☐	☐	☐
Moorhen *Gallinula chloropus*	2	2012	Green	☐	☐	☐
Oystercatcher *Haematopus ostralegus*	5	2011	Amber	☒	☐	☐
Peregrine *Falco peregrinus*	7	2013	Green	☐	☒	☐
Pheasant *Phasianus colchicus*	2018	2013	Green	☐	☐	☐
Pied Wagtail *Motacilla alba*	3	2008	Green	☐	☐	☐
Raven *Corvus corax*	4	2014	Green	☐	☐	☐
Red Grouse *Lagaopus lagopus*	2	2010	Green	☐	☐	☒
Red-legged Partridge *Alectoris rufa*	10	2013	Green	☐	☐	☐
Reed Bunting *Emberiza schoeniclus*	29	2014	Amber	☒	☐	☒

Species	Number of Records	Most Recent Record	BoCC List	Level of Protection		
				N'Land BAP	WCA 1981	NERC /UK BAP
Robin *Erithacus rubicula*	11	2013	Green	☐	☐	☐
Rook *Corvus frugilegus*	3	2013	Green	☒	☐	☐
Sand Martin *Riparia riparia*	6	2012	Green	☐	☐	☐
Sedge Warbler *Acropcephalus schoenobaenus*	7	2013	Green	☐	☐	☐
Shelduck *Tadorna tadorna*	3	2013	Amber	☒	☐	☐
Short-eared Owl *Asio falmmeus*	3	2013	Amber	☐	☐	☐
Siskin *Spinus spinus*	1	2009	Green	☐	☐	☐
Skylark *Alauda arvensis*	21	2014	Red	☒	☐	☒
Snipe *Gallinago gallinago*	20	2013	Amber	☐	☐	☐
Sparrowhawk *Accipiter nisus*	4	2017	Green	☐	☐	☐
Spotted Flycatcher *Muscicapa striata*	1	2007	Red	☐	☐	☒
Stonechat *Saxicola rubicola*	10	2014	Green	☐	☐	☐
Swallow *Hirundo rustica*	13	2013	Green	☒	☐	☐
Swift *Apus apus*	4	2014	Amber	☒	☐	☐
Teal *Anas crecca*	7	2014	Amber	☐	☐	☐
Tree Pipit *Anthus trivialis*	1	2013	Red	☐	☐	☒
Tufted Duck *Aythya fuligula*	6	2013	Green	☐	☐	☐
Wheatear *Oenanthe oenanthe*	3	2012	Green	☐	☐	☐
Whinchat *Saxicola rubetra*	6	2012	Red	☐	☐	☐
Whitethroat *Sylvia communis*	9	2013	Green	☒	☐	☐

Species	Number of Records	Most Recent Record	BoCC List	Level of Protection		
				N'Land BAP	WCA 1981	NERC /UK BAP
Whooper Swan *Cygnus cygnus*	1	2010	Amber	☒	☒	☐
Wigeon *Anas Penelope*	4	2014	Amber	☐	☐	☐
Willow Warbler *Phylloscopus trochilus*	21	2013	Amber	☐	☐	☐
Woodcock *Scolopax rusticola*	2	2013	Red	☐	☐	☐
Wood Pigeon *Columba palumbus*	23	2013	Green	☒	☐	☐
Wren *Troglogytes troglodytes*	22	2014	Green	☐	☐	☐
Yellowhammer *Emberiza citrinella*	16	2014	Red	☒	☐	☒