

**Battery Storage Project,
Contullich, Scotland**

Ecological Impact Assessment



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Renewable Energy Systems Limited

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1 INTRODUCTION

1.1 Terms of Reference

- i RammSanderson Ecology Ltd (RS) were commissioned by Renewable Energy Systems Limited (the Applicant) to undertake an Ecological Impact Assessment (EclA) to support the planning application for the proposed battery storage project (hereafter referred to as the Scheme), located south of the substation at Alness, Scotland. All land situated within the red line of the Scheme is hereafter referred to as the Application Site and is shown on Figure 1.
- ii The purpose of this EclA is to demonstrate how the Scheme accords with relevant national and local planning policy and legislation. Further details on relevant planning policy and legislation are provided in Appendix A.
- iii This EclA details the methodology followed to undertake the assessment, describes the ecological baseline relevant to the Scheme and evaluates the nature conservation importance of ecological features present within the Study Area (see Section 2). The EclA characterises the impacts (both positive and negative) of the Scheme on Important Ecological Features (IEF)¹, and where necessary, sets out appropriate and proportionate avoidance, mitigation and compensation measures that will be delivered by the Applicant. The significance of any residual effects (both positive and negative) of the Scheme on the IEFs has been assessed, and opportunities for enhancement are identified with the overall aim of achieving biodiversity net gain through the Scheme.
- iv This EclA forms part of the supporting technical documentation for the planning application submitted for the Scheme and has been undertaken with reference to current good practice² and is consistent with the requirements of British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development.

1.2 The Scheme

- i The Scheme involves the development of a new battery storage facility. It will include hardstanding, battery containers, substations and other equipment, surrounded by security fencing up to 3m in height. A 4m acoustic fence will run through the centre of the Application Site. A new access track will connect to the road which runs along the northern boundary of the Site.

1.3 The Application Site

- i The Application Site is located south of Alness substation at Ordnance Survey national grid reference NH 64273 70905 and is approximately 6.3 ha in size.
- ii The Application Site comprises predominantly of 'in use' agricultural land and associated fringe and border vegetation. The Application Site is bounded by primarily by further agricultural land, with the mixed woodland Coullhill wood to the west, the wider area consists of Alness town 1km south of the Application Site with further agricultural areas and highlands to the north.

¹ Important Ecological Features are habitats, species, ecosystems and their functions and processes that are of conservation importance and could potentially be affected by the Scheme. Various characteristics contribute to a feature's importance including its rarity, diversity, size, population trend, distinctiveness, naturalness, fragility, typicalness, recorded history, potential value and intrinsic appeal.

² CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

2 METHODOLOGY

2.1 Scope of the EclA

- i The EclA has been undertaken as follows:
- Define the Study Area for the assessment, which considers the Zone of Influence³ (ZoI) of the Scheme.
 - Undertake desk and field-based assessments for designated sites, habitats and species to determine the ecological baseline for the Scheme within the Study Area.
 - Determine the nature conservation importance of each ecological feature recorded during the desk and field-based assessments to determine which of those features are IEFs in the context of the EclA.
 - Assess the potential impacts on IEFs because of the Scheme.
 - Design suitable avoidance and mitigation measures to address potential impacts.
 - Determine the significance of any residual effects and design suitable compensation measures to address significant residual effects; and,
 - Identify opportunities for biodiversity enhancements including delivery of Biodiversity Net Gain.

2.2 Important Ecological Features

- i The EclA has focused on the potential impacts to ecological features (habitats, species, ecosystems and their functions/ processes) that are considered important and potentially affected by the Scheme. The EclA has not carried out detailed assessments of features that are sufficiently widespread, unthreatened and resilient to impacts and which will remain viable and sustainable should the Scheme proceed as detailed in Section 1.
- ii For this EclA, the following are considered IEFs requiring detailed assessment:
- Statutory designated sites.
 - Non-statutory designated sites.
 - Habitats and species of principal importance (HoPI / SoPI) for the conservation of biodiversity in Scotland listed on the Scottish Biodiversity List.
 - Irreplaceable habitats including ancient woodland and veteran trees.
 - Individual habitat types or mosaics that may not qualify as HoPI but form an important part of ecosystems and their function.
 - Legally protected species⁴
 - Local Biodiversity Action Plan (LBAP) priority species and habitats.
 - Species of conservation concern, Red Data Book (RDB) species – UK⁵.
 - Birds of Conservation Concern – UK⁶.
- iii The EclA has also considered legally controlled plant species listed as invasive on Schedule 9 of the Wildlife and Countryside Act 1981 in Britain (e.g., Japanese knotweed, Himalayan balsam, giant hogweed).

³ The Zone of Influence is the area over which ecological features may be affected by biophysical changes because of the Scheme and associated activities.

⁴ Legally protected species are those listed on the Wildlife and Countryside Act 1981, The Conservation of Habitats and Species Regulations 2018, Protection of Badgers 1992.

⁵ Species Status Assessment project published by Joint Nature Conservation Committee (JNCC) in 1999. <http://jncc.defra.gov.uk/default.aspx?page=3352>.

⁶ (Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man.

2.3 Study Area

- i Desk and field-based studies have been undertaken to establish the biodiversity baseline that may be impacted by the Scheme. The scale of the Study Areas varies dependent upon the ecology of the feature being assessed and its vulnerability to change resulting from construction and operation of the Scheme. Ecological features outside of the Study Area are unlikely to be affected by the Scheme and are not considered in this EClA.
- ii Table 1 summarises the Study Area for the Scheme.

Table 1. Background Records and Field Surveys Study Areas

Ecological Feature	Background Records Study Area ⁷	Field Survey Study Area ⁸
Designated Sites	2 km	The Application Site and its immediate surrounds
Legally protected and notable habitats, flora and fauna	2 km	The Application Site and a 50m buffer where access was possible
Great crested newt	2km	500m

2.4 Desk Study

2.4.1 Background Records

- i A desk study has been undertaken to obtain background records relevant to the Scheme and the EClA, including records of statutory and non-statutory designated sites and protected and notable species within the Study Areas detailed above in Table 1. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage has not been possible.
- ii Data has been obtained from the Highland Biological Recording Group in August 2023.

2.5 Field Surveys

- i Field surveys have been designed to collect information on the habitats and species present that may be affected by the Scheme. The geographical areas across which field surveys have been undertaken are the areas over which ecological features are likely to be subject to impacts from the construction or operation of the Scheme if they are present and accounting for the Scheme design measures detailed in Section 1.
- ii Table 2 summarises the field surveys that have been undertaken to inform the EClA.
- iii Detailed methodologies for collection of field survey data, and any specific limitations and deviations encountered during these surveys, are presented in Appendix 2.

⁷ Distance measured from the Application Site Boundary.

⁸ Distance measured from the Application Site Boundary.

Table 2. Field Surveys undertaken to inform EclA

Ecological Feature	Survey Type	Date(s) of Survey(s)
Habitats	Phase 1 habitat survey	29 th July 2023
Badger	Presence likely absence survey	29 th July 2023
Bats	Ground level tree assessment (GLTA)	29 th July 2023
Other protected or notable species	Scoping Survey	29 th July 2023

2.6 Assessment criteria

i This EclA broadly follows CIEEMs Guidelines for Ecological Impact Assessment in the United Kingdom with the following clarifications specific to the Scheme.

2.6.2 Nature conservation evaluation

ii Several criteria have become accepted as a means of assessing the nature conservation importance of a defined area of land which are set out in *A Nature Conservation Review*⁹ and include diversity, rarity and naturalness.

iii For this EclA, the nature conservation importance or potential value of an ecological feature is determined within the following geographic context:

- International (Europe): such as Special Areas of Conservation (SAC) or Special Protection Areas (SPA).
- National (Scotland): such as Sites of Special Scientific Interest (SSSI);
- Regional (*): such as populations of species which enrich biodiversity on a regional scale and whose loss would significantly affect the species national distribution.
- County (Ross and Cromarty): such as Local Nature Reserves (LNR) or populations of species which qualify for Local Wildlife Site (LWS) designation.
- Local (AIness): undesignated ecological features such as old hedges, woodlands, ponds;
- Site: the feature has some ecological importance, but is not of a scale warranting consideration outside of the boundaries of the Site itself; and
- Negligible: the feature either has little or no importance for biodiversity, or is considered sufficiently widespread, unthreatened, and resilient to impacts and will remain viable and sustainable.

*A geographical area for Regional importance has not been defined. A feature is of Regional importance when it is of greater geographical importance than within the area of Ross and Cromarty but does not reach the threshold to be of National (Scottish) importance.

iv Ecological features of Local or higher nature conservation importance are considered IEFs requiring detailed assessment. In addition, for the EclA to demonstrate how the Scheme will comply with statutory requirements and policy objectives for biodiversity, some ecological features are considered IEFs even if they are not of Local or higher nature conservation importance. These are features that are protected by national legislation and include:

- Badgers, legally protected through the Protection of Badgers Act, 1992;
- All nesting birds, legally protected through the Wildlife and Countryside Act, 1981; and,
- Non-native invasive plant species, listed on Schedule 9 of the Wildlife and Countryside Act, 1981.

⁹ Ratcliffe, D. (1977). *A Nature Conservation Review*.

2.6.3 Temporal scope

v Potential impacts on IEFs have been assessed in the context of how the predicted baseline conditions might change between the surveys and the start of construction.

vi Long-term trend information was used to make judgements about the significance of an impact or effect on the conservation objectives or condition of a designated site, or the conservation status of a habitat or species (for example a species with a long term, national population decline may be more susceptible to impacts attributable to the Scheme). Where this information was available it is referenced in Section 4.

vii Once construction is complete, this EclA has assumed that the operational phase of the Scheme will last for the foreseeable future.

2.6.4 Approach to mitigation

viii Where impacts on IEFs are predicted, the approach to mitigation engages the following hierarchy:

- (1) Avoid features where possible.
- (2) Minimise impact by design, method of working or other measures, for example by enhancing existing features; and,
- (3) Compensate for significant residual impacts (e.g., by providing suitable habitats elsewhere).

ix The highest level of the hierarchy has been applied where possible. Only where this cannot reasonably be adopted have lower levels been considered. The rationale for the proposed level of mitigation has been detailed in Section 4, including sufficient detail to show that these measures are feasible and will be provided by the Applicant.

x The Fourth National Planning Framework (NPF4) states that all development will contribute to the enhancement of biodiversity, including where relevant restoring degraded habitats. Proposals for local development will include appropriate measures to conserve, restore and enhance biodiversity in accordance with national and local guidance.

xi Throughout this EclA, the potential to secure biodiversity enhancement, and therefore overall net gain, has been considered.

2.7 Limitations to the Assessment

i The ecological surveys undertaken to support this EclA have not produced a complete list of plants and animals and the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. However, the results of these surveys have been reviewed and are considered to be sufficient to undertake this EclA.

3 BASELINE CONDITIONS AND NATURE CONSERVATION IMPORTANCE

i The following sections provide a summary of the baseline conditions relevant to the Scheme and the assessment of potential impacts of the Scheme on biodiversity. The baseline is based on the results of the desk and field-based studies undertaken within the Study Area to inform this ECIA.

ii Regarding background data, 'recent' records are considered to be those no older than 10 years from the date of the desk study. Records outside of this period are historical and have only been reported where more recent records do not exist. Exceptions to this are detailed in the appropriate sections below.

iii Ecological features which are present or considered likely to be present within the Study Area have been assigned a geographical scale of nature conservation importance in line with the criteria detailed in Section 2. Nature conservation importance is summarised in Table 6.

3.2 Designated Sites

i Table 3 summarises the designated sites situated within the Study Area.

Table 3. Designated Sites within Study Area

Site Name	Designation	Location ¹⁰	Brief Description
Novar	Special Protection Area (SPA)	0.9 km W	Novar is upland mixed ash woodland with grazing from deer and invasive species. The SPA qualifies under Article 4.1 by regularly supporting a breeding population of importance of the Annex 1 species cappercallie <i>Tetrao urogaulis</i> . The site supports approximately 13 individuals (mean 1999-2003) representing 1.2% of the GB population.
Alness River Valley	Site of Special Scientific Interest (SSSI)	300 m NE	Alness River Valley SSSI lies either side of the river Alness approximately 1km upstream of the town of Alness. The core woodland areas are on the steep slopes at the northeast end of the site downstream of Dalneich bridge.




3.3 Habitats

i Summary descriptions of the habitats within the Application Site are provided below in Table 4 and shown on Figure 2, with specific features highlighted by TNs.

ii Habitat types detailed are listed in order of the Phase 1 Habitat Survey Handbook (Joint Nature Conservation Committee, 2010). The species list provided in this report reflect only those taxa observed during the survey and are not an exhaustive list of all species that may be present, as the survey only provides a snapshot of the Site.

¹⁰ Where designated sites are situated outside of the Site boundary, the distance and direction is given at the closest point of the designated site from the Site

Table 4: Habitats within Survey Area

Habitat	Description	Area (m ²)	Proportion of site (%)	Photograph
A2.1 Scrub – Dense/Continuous	A band of fern scrub ran along the stone wall before succeeding into Tall ruderal.	1455.84	2	
B6 Poor Semi-Improved Grassland	Bordering the cultivated arable land, species more characteristic of poor semi-improved grasslands were present.	1201.67	2	
C3.1 Other tall herb and fern ruderal	A majority of the Application Site's eastern border was a band of willowherb dominated Tall ruderal adjacent to a stone wall.	1327.24	2	
J1.1 Cultivated/disturbed land arable	The Application Site was mainly comprised of two in-use agricultural fields, containing a monoculture of wheat (<i>Triticum aestivum</i>). At the field margins a more diverse selection of plants was creeping in.	59025.99	94	

3.4 Badger

3.4.1 Desk Study

- i There are no recent records of badger within the Study Area.

3.4.2 Field Survey

- ii Typically badgers prefer to make their setts in field margins, on sloping ground. With the development set to take place within an in-use agricultural field, the likelihood of a badger sett being either on or within 30m of the development is negligible. During the field survey the entirety of the field margins were walked and there was no field signs of badger or potential setts.

3.5 Bats


3.5.1 Desk Study

- i There are no recent records of bats within the Study Area.


3.5.2 Field Survey

- ii Table 5 summarises both the evidence of bats being present within the Survey Area, and the potential for features and habitats within the Survey Area to support roosting bats.
- iii Features and habitats in Table 5 are shown on Figure 2.

Table 5: Summary of features with potential to support Bats

Feature	Description	Location ¹¹	Grading	Photographs
Tree T1 TN1	Mature silver birch with SW facing trunk cavity approximately 1.5m above ground.	Outside of Application Site, near north eastern boundary.	Moderate	

¹¹ Where features are situated outside of the Site boundary, the distance and direction is given at the closest point of the feature from the Site

Feature	Description	Location ¹¹	Grading	Photographs
Tree T2 TN3	Mature Silver Birch tree with two woodpecker holes located approximately 5m above ground level on the west facing of the trunk.	Outside of Application Site, near north eastern boundary.	High	 <p>The photographs show a mature Silver Birch tree with a thick, textured trunk. The top-left photo shows the tree in its natural setting. The top-right photo is a close-up of the trunk showing two distinct woodpecker holes. The bottom photo is another close-up of the trunk, highlighting the texture and the location of the holes.</p>

- iv Arable farmland did not offer good opportunities for foraging bats. There were far more optimal habitats outside of the Application Site associated with the woodland blocks to the north and east.

3.6 Red Squirrel and Pine Marten

3.6.1 Desk Study

- i There is one recent record of Eurasian red squirrel (*Sciurus vulgaris*) which is approximately 1.73 km from the Application Site boundary.
- ii No records of pine marten were returned from the desk study.

3.6.2 Field Survey

- iii The Application Site, being arable farmland, offered no suitable habitat for red squirrel or pine marten. The nearby woodland offers suitability for both species. However, as only arable habitat will be lost, surveys for these species was considered disproportionate to the potential impacts.

3.7 Great Crested Newt (GCN)

3.7.1 Desk Study

- i There are no recent records of great crested newts within the Study Area.
- ii A total of 4 water bodies are present within 250m of the Application Site, two ponds (P1 and P3) and two ditches (D2 and D3). These water bodies have been screened out of further assessment because they were dry or had an unsuitably low amount of water at the time of survey.

3.7.2 Field Survey

- iii During the field survey nearby ditches and ponds were checked and found to either be dry or containing a limited water column so as to be unsuitable for GCN.
- iv Given the lack of suitable habitat near site and lack of GCN records (GCN are rare and sparsely distributed in Scotland, especially the Highlands) it is highly unlikely that GCN will be impacted by site works, as such best practices should be followed as the development takes place, and works should immediately cease and an ecologist should be contacted if any newts are found onsite at any point during the development.

3.8 Common Species of Reptile

- i 'Common species of reptile' refers to common lizard, slow worm, adder and grass snake. The Application Site is located outside of the known range of smooth snake and sand lizard and these species are not considered in this report.

3.8.2 Desk Study

- ii There are no recent records of common lizard, slow worm, adder and grass snake (thought to be exceptionally rare in Scotland) within the Study Area.

3.8.3 Field Survey

- iii No reptiles were seen during the field survey. Two rock piles were found on Application Site, noted for their high reptile suitability, however neither of these piles are set to be impacted by the proposed works.
- iv Reptiles are unlikely to be present within the Application Site, and as only arable habitat will be lost no impacts to these species are anticipated.

3.9 Birds

3.9.1 Desk Study

- i There are no recent records for notable¹² bird species within the Study Area returned from the local record centre, however the nearby SPA Novar (900m away) is cited in part for capercaillie.

3.9.2 Field Survey

- ii The Application Site offered limited suitability for most protected bird species and the regular cultivation of the land has likely dissuaded any nesting activity taking place within the fields where the development is proposed to take place. During the survey there were no skylark or other ground nesting bird calls or activity. The nearby scattered trees had no obvious barn owl features, and no pellets underneath them. There may be barn owl that utilise the area for hunting. The woodland to the south has suitability to support notable species such as goshawk, crested tit or crossbill sp though there are no records of any of these species.

3.10 Terrestrial Invertebrates

3.10.1 Desk Study

- i There are no recent records of notable¹³ terrestrial invertebrates within the Study Area.

3.10.2 Field Survey

- ii The rank grassland, tall ruderal, and scrub around the borders of the Application Site offer suitable habitat for a range of invertebrates, although not for any notable species or assemblages.

3.10.3 Constraints and Recommendations

- iii The small footprint of the site will likely result in a limited impact on the invertebrate species in the area.

3.11 Summary of Nature Conservation Importance

- i Table 6 summaries the IEFs that have been recorded (or assumed to be present) in the Study Area and their nature conservation importance.

Table 6. Summary of Nature Conservation Importance

Ecological Feature	Geographical Scale of Nature Conservation Importance
Novar SPA and Capercaillie	International (Europe)
Alness River Valley SSSI	National (Scotland)
Habitats within the Application Site	Site

¹² Notable bird species are taken as those listed: on Annex I of the EC Birds Directive (2009/147/EC); on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); as Species of Principal Importance (SPI) for the Conservation of Biodiversity in England listed in Section 41 of the Natural Environment and Rural Communities Act 2006; as Red or Amber in the Birds of Conservation Concern (BoCC) 4 (Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708-746); bird species or groups listed under the Highland Nature BAP.

¹³ Notable terrestrial invertebrates are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any invertebrate listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); any invertebrate listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); any invertebrate listed in the IUCN Invertebrate Red Data Book (1991); and any invertebrate listed under the Highland Nature BAP.

Ecological Feature	Geographical Scale of Nature Conservation Importance
Woodland adjacent to the Application Site	Local
Bats	Site – limited opportunities for roosting and foraging for bat species
Red squirrel and pine marten	Local – assumed to be present in low numbers in the woodland adjacent to the Application Site
Birds within the Application Site	Negligible
Birds within the woodland adjacent to the Application Site	Local – notable species such as crested tit and crossbill may use the woodland, though as the woodland is small significant assemblages are unlikely to be present.

4 IMPACT ASSESSMENT, AGREED MITIGATION MEASURES AND SIGNIFICANCE OF RESIDUAL EFFECTS

- i This Section characterises the impacts of the Scheme on IEFs during the construction and operation phases, sets out agreed avoidance and mitigation measures, and assesses the significance of the residual effects (both positive and negative) of the Scheme on these features. Where significant residual effects will occur, appropriate compensation measures are identified to offset those effects. Enhancements agreed by the Applicant are set out in Section 5.
- ii The Applicant has agreed that the mitigation measures identified below will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the Application Site.

4.2 Novar SPA and Capercaillie

4.2.1 Construction Impacts and Mitigation

- i The Novar SPA is designated for capercaillie, one of the rarest breeding birds in Scotland. The closest part of the SPA is located approximately 900m from the Application Site.
- ii Capercaillie is a shy, large grouse species associated with pine forest. There is no such habitat within or adjacent to the Application Site, therefore this species is unlikely to be present within or close to the Application Site and the habitats within the Application Site are unlikely to be functionally linked to the SPA as they consist almost entirely of arable land unsuitable for capercaillie.
- iii The most recent capercaillie lek count (Cairngorms Capercaillie Project, 2023) concluded that the population of capercaillie in Scotland has dropped to around 540 birds, with 85% of individuals living in the Cairngorms national park. Of those 540, roughly 1/3 are male.
- iv NatureScot guidance on disturbance distances for capercaillie (NatureScot Research Report 1283) suggests that breeding female capercaillie can be disturbed at distances up to 100m, and lekking males can be disturbed at distances of 500m-1000m. The construction works would be at the very outer limits of these distances for lekking males, and given that any leks present within the SPA are going to be deep within the forest rather than on its outer extents, disturbance of any capercaillie is very unlikely to happen and no mitigation is proposed to reduce this any further as it is unnecessary.

Operation Impacts and Mitigation

- v As the Scheme is a battery storage facility, no operational impacts on the SPA or the capercaillie population would occur.

Residual Effects and Compensation Measures

- vi No residual effects would occur to the SPA or the capercaillie population and no compensation is required.

4.3 Alness River Valley SSSI

4.3.1 Construction Impacts and Mitigation

- i As the Scheme is small in footprint and is located over 300m from the SSSI, impacts are very unlikely to occur because of any construction activities. To further reduce this risk, standard methods to reduce pollution because of dust, contaminants or spills would be instigated during construction. These would be detailed within a Construction Environmental Management Plan (CEMP) for the Scheme.

Operation Impacts and Mitigation

- ii As the Scheme is a battery storage facility, no operational impacts on the SSSI would occur.

Residual Effects and Compensation Measures

- iii No residual effects would occur to the SSSI and no compensation is required.

4.4 Habitats

4.4.1 Construction Impacts and Mitigation

- i The construction of the Scheme would result in the loss of poor-quality arable farmland.
- ii The landscaping plan for the Scheme includes native pine/birch woodland, scrub and meadow grassland. This habitat creation would improve the quality and variety of habitats within the Application Site and would provide habitat for a range of biodiversity including mammals, birds and invertebrates.

Operation Impacts and Mitigation

- iii As the Scheme is a battery storage facility, no operational impacts on habitats would occur.

Residual Effects and Compensation Measures

- iv Accounting for the habitat creation as part of the Scheme, a positive effect on habitats would occur significant at the Site scale.

4.5 Bats

4.5.1 Construction Impacts and Mitigation

- i The habitats within the Application Site are of very low suitability for foraging and commuting bats as they consist mostly of arable land. During construction, any artificial lighting required would be controlled to ensure light spill did not occur to woodland adjacent to the Application Site boundary.
- ii None of the trees adjacent to the Application Site would be impacted as they are situated over 30m from the footprint of works, which is sufficient for any noise or vibration associated with construction works to dissipate to an inconsequential level in terms of bats.

4.5.2 Operation Impacts and Mitigation

- iii During operation, any artificial lighting required would be controlled to ensure light spill did not occur to woodland adjacent to the Application Site boundary. The specific details with regards lighting are:
 - Lighting provided for occasional operational and maintenance use only. Lights would be manually switched rather than automated. The light output would be up to 15,000 lumens.
 - Lights to be directional/shielded to prevent glare and light spill onto nearby woodland.
 - Operation and maintenance activities would normally be limited to the hours of daylight to minimise use of artificial lighting and consequential disturbance to local wildlife.
 - The lighting column itself would be 4m high.
- iv As such, no operational impacts on bats would occur.

4.5.3 Residual Effects and Compensation Measures

- v No residual effects would occur to bats and no compensation is required.

4.6 Red Squirrel and Pine Marten

4.6.1 Construction Impacts and Mitigation

- i The woodland adjacent to the Application Site has suitability to support both species. There is no suitable habitat within the Application Site for either of these species so impacts through habitat loss would not occur.
- ii Red squirrel and pine marten are susceptible to disturbance from activities such as construction works.
- iii NatureScot recommends a 50 m buffer zone around breeding red squirrel dreys, and 100 m for pine marten breeding dens. The construction footprint is situated over 100m from the outer extent of the woodland, so disturbance to either of these species would be unlikely to occur from any construction related activities associated with the Scheme, and no further mitigation is required.

- iv The creation of pine/birch woodland, scrub and meadow grassland is likely to increase foraging opportunities for pine marten, though as these areas would be quite small in the context of a pine marten territory this gain in habitat is not considered a significant effect.

4.6.2 Operation Impacts and Mitigation

- v During operation, any artificial lighting required would be as per the details above in Section 4.5. As such, no operational impacts on either species would occur.

4.6.3 Residual Effects and Compensation Measures

- vi No residual effects would occur to either species, and no compensation is required.

4.7 Birds

4.7.1 Construction Impacts and Mitigation

- i Habitats within the Application Site are unlikely to support any notable or protected bird species as they consist almost entirely of poor-quality arable land. There is still a risk that commoner bird species nest within the Application Site during construction. As the construction period would last approximately 12 months it is not possible to avoid working during the bird nesting season, which is typically March to August with some species and seasonal variations. Therefore, immediately prior to clearance of any habitat, a check for nests would be undertaken by an appropriately experienced ecologist. If any nests were found, they would be left in situ until the nest is no longer active or the chicks have fledged, with an appropriate buffer of vegetation to be left around the nest, the extent of which would be determined by the ecologist on site.
- ii The woodland adjacent to the Application Site has greater potential to support more notable species such as crested tit or crossbills. The construction footprint is situated over 100 m from the woodland adjacent to the Application Site, therefore impacts to any birds through disturbance is unlikely and no further mitigation is required.

4.7.2 Operation Impacts and Mitigation

- iii Habitat creation including native pine/birch woodland, scrub and meadow grassland within the Application Site would provide nesting and foraging opportunities for a range of bird species in the long term.

4.7.3 Residual Effects and Compensation Measures

- iv Accounting for the habitat creation as part of the Scheme, a positive effect on birds would occur significant at the Site scale.

5 ENHANCEMENTS

- i As only poor-quality arable land would be lost as part of the Scheme, the creation of pine/birch woodland, scrub and meadow grassland would enhance the Application Site and deliver a net gain for biodiversity.
- ii A Biodiversity Impact Assessment utilising the DEFRA Biodiversity Metric accompanies this EclA and sets out the gain in biodiversity that the Scheme would deliver in terms of biodiversity units.

6 CONCLUSION

- i No significant effects would occur to the Nova SPA or the capercaillie population present; the Alness River Valley SSSI; bats; red squirrel or pine marten.
- ii The creation of pine/birch woodland, scrub and meadow grassland within the Application Site would result in a positive effect on habitats and birds, significant at the Site scale.
- iii Overall, the Scheme would deliver a net gain for biodiversity and would accord with local and national planning policy.


7 FIGURES

Figure 1: Site Location and Context Plan

Figure 2: Phase 1 Habitat Survey

Figure 3: Waterbody Plan



 RammSanderson		
Title: Site Context Plan		
Project: Battery storage project, Contullich, Scotland		
Client: Renewable Energy Systems Limited		
Date: 20/12/2023	Fig:	Author: RD
A4 Scale: 1:3250	ID: RSE_7216_STC_1223_V2R1	



Key

- Site Boundary
- A2.1 - Scrub - dense/continuous
- B6 - Poor semi-improved grassland
- C3.1 - Other tall herb and fern - ruderal
- J1.1 - Cultivated/disturbed land - arable
- J2.4 - Fence
- J2.5 - Wall
- TN - Target Note
 - TN1 - Circular Aluminum Tree Tag, Potentially Tree Protection Order and Potential Roosting Feature
 - TN2 - Circular Aluminum Tree Tag, Potential Tree Protection Order
 - TN3 - Tree with Potential Roosting Feature
 - TN4/TN5 - Rock Pile

P1 Code	Area	Percentage Of Area	P1 Code	Length
A2.1	1455.84	2	J2.5	456
B6	1201.67	2	J2.4	238
C3.1	1327.24	2		
J1.1	57824.99	94		

Boundary Area (m2)
61810

RammSanderson

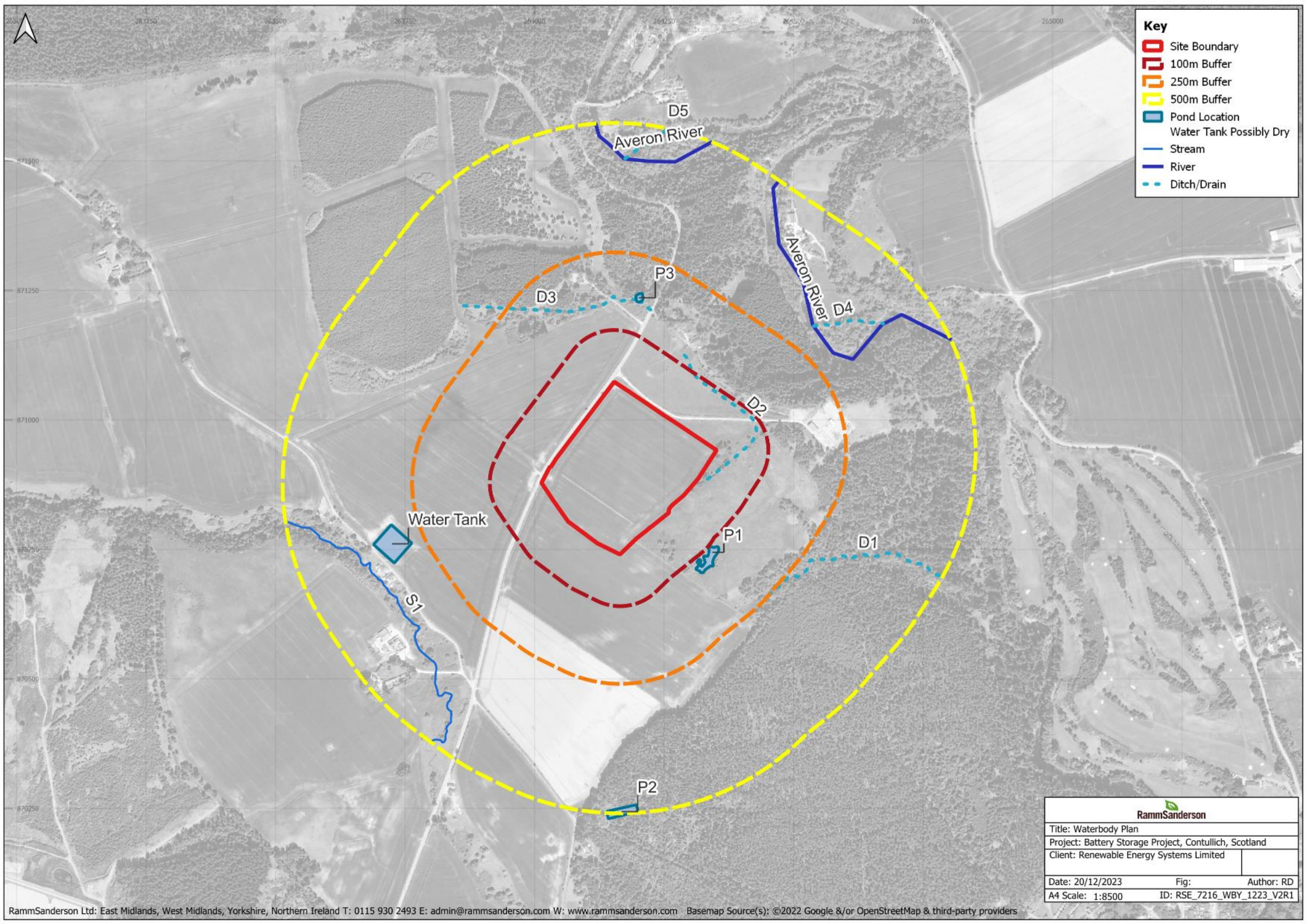
Title: Phase 1 Habitat Plan

Project: Battery Storage Project, Contullich, Scotland

Client: Renewable Energy Systems Limited

Date: 20/12/2023 Fig: Author: RD

A4 Scale: 1:2500 ID: RSE_7216_PH1_1223_V2R1



Key

- ▭ Site Boundary
- - - 100m Buffer
- - - 250m Buffer
- - - 500m Buffer
- ▭ Pond Location
- ▭ Water Tank Possibly Dry
- Stream
- River
- - - Ditch/Drain

RammSanderson		
Title: Waterbody Plan		
Project: Battery Storage Project, Contullich, Scotland		
Client: Renewable Energy Systems Limited		
Date: 20/12/2023	Fig:	Author: RD
A4 Scale: 1:8500	ID: RSE_7216_WBY_1223_V2R1	

8 REFERENCES

- Wildlife and Countryside Act . (1981 (as amended)). *Schedule 9*.
- Collins, J. (Eds.). (2016). *Bat Surveys for Professional Ecologists: Good Survey Guidelines (Collins, J. Eds. 2016)*, . London: Bat Conservation Trust.
- Department of Communities & Local Government. (2021). *The National Planning Policy Framework (NPPF)* .
- Harris, S. C. (1989). *Surveying Badgers*. The Mammal Society.
- Joint Nature Conservation Committee. (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. Peterborough.
- Multi-Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk)* . (n.d).
- National Parks and Access to the Countryside Act*. (1949).
- Scottish Natural Heritage. (2018). *Surveying for Badgers: Good Practice Guidelines. Version 1*.
- Stace, C. E. (2019). *New Flora of the British Isles, 4th Edition*. Cambridge University Press.
- Stanbury, A. E. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, 114:723-747.
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations*. (2019).

APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY

The UK is no longer a member of the European Union (EU). EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation. EU legislation which applied directly or indirectly to the UK before 11.00 p.m. on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.

The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant and are now referred to as The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (the 2019 Regulations).

Designated Sites

Special Protection Areas (SPA)

These sites in the UK no longer form part of the EU's Natura 2000 ecological network. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations, 2019, have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK.

The national site network includes:

- existing SACs and SPAs
- new SACs and SPAs designated under these Regulations

Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network. Formal Appropriate Assessment is required to be undertaken by the competent authority before undertaking, or giving consent, permission or other authorisation for any work which are likely to have a significant effect on such a site.

Sites of Special Scientific Interest

Under the Wildlife and Countryside Act 1981 (as amended), it is an offence to carry out or permit to be carried out any operations likely to damage the Site of Special Scientific Interest (SSSI). These operations are listed in the SSSI notification.

Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 of the Wildlife and Countryside Act 1981 (as amended), before undertaking operations likely to damage a SSSI.

Protected Species

Bats

These species, known as European Protected Species, are protected under Regulation 43 of the 2017 Regulations as amended by the 2019 Regulations. This makes it an offence to deliberately capture, injure or kill an animal; deliberately disturb an animal; or damage or destroy a breeding site or resting place used by an animal.

Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing. Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

Where development works are at risk of causing one or more of the offences listed above, a mitigation licence from Natural England can be obtained to facilitate the works that would otherwise be illegal.

These species are also protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb an animal in such a place.

Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Nesting Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), with some species afforded greater protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the protection from killing or taking that all birds receive, Schedule 1 birds and their young must not be disturbed at the nest.

There are no licensing purposes that explicitly cover development activities affecting wild birds.

Species and Habitats of Principal Importance for the Conservation of Biodiversity

The Scottish Biodiversity List is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.

By identifying the species and habitats that are of the highest priority for biodiversity conservation, the Scottish Biodiversity List helps public bodies apply their biodiversity duty.

Planning Policy

The SPP is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed across the country. It is non-statutory. However, Section 3D of the Town and Country Planning (Scotland) 1997 Act requires that functions relating to the preparation of the National Planning Framework by Scottish Ministers and development plans by planning authorities must be exercised with the objective of contributing to sustainable development

The Nature Conservation (Scotland) Act, 2004

Under the Nature conservation (Scotland) Act 2004, all public bodies in Scotland have a duty to further the conservation of biodiversity when carrying out their responsibilities. This biodiversity duty is about taking care of nature all around us, not just in specific protected sites and for particular species.

Local Planning Policy

- i. The Inner Moray Firth Proposed Local Development Plan (March 2023), discusses in Section 3, General Policies, Environment - "We hope to make the Plan area more resilient to the environmental impacts of climate change and help contribute to Scotland's ambitious carbon reduction targets of a 75% reduction in all greenhouse gas emissions by 2030 and net zero by 2045." Renewable energy storage is part and parcel of this vision.
- ii. Section 3 Policy 2 discusses Nature protection preservation and enhancement - "All developments must contribute to the enhancement of biodiversity, including restoring degraded habitats and building and strengthening nature networks and the connections between them. Any potential adverse impacts of development proposals on biodiversity, nature networks and the natural environment must be minimised through careful planning and design. Design and layouts should consider reversing biodiversity loss,

safeguarding the services that the natural environment provides and building the resilience of nature by enhancing nature networks and maximising the potential for restoration.”

Local Biodiversity Action Plans

- iii. The Highland Nature Biodiversity Action plan 2021 – 2026 has multiple commitments aiming to reduce the impact of climate change such as -
- iv. “1.1 To ensure planning and development policies protect biodiversity and reduce climate change impact”
- v. “1.4 Ensure that a Highland Land Use Partnership has biodiversity enhancement and protection at its’ heart, with climate-change impact reversal as priorities”

APPENDIX 2: METHODOLOGY

Desk Study

Background Records Search

The preliminary ecological assessment includes a desk study to obtain background records relevant to a Site and the Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible.

The Study Area is dependent upon the nature, timing and scale of the Scheme, as well as the location of the Site and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (ZoI) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.

On 17/08/2023 the Highland Biological Recording Group was contacted to obtain the following ecological data:

- Records of non-statutory designated sites (LNR,NNR) within 2 km of the Site boundary;
- Records of legally protected and notable species (fauna and flora) within 2 km of the Site boundary, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 in the England Biodiversity List¹⁴.

The Multi-Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk) website was reviewed for the following information:

- Designated sites of nature conservation importance (statutory sites only) within 2km of the Site. and,
- Notable habitats within 2km of the Site, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List.

Great Crested Newt Pond Search

Ordnance Survey maps and the Where's the Path website (<https://wtp2.appspot.com/wheresthepath.htm>) have been used to identify the presence of water bodies within 500m of the Site boundary, in order to help establish if the land within and immediately surrounding the Site could be used by great crested newts. This species can use suitable terrestrial habitat up to 500 m from a breeding pond (English Nature, 2001), though there is a notable decrease in great crested newt abundance beyond 250 m from a breeding pond (Natural England, 2004).

Field Survey

The ecological assessment includes a walkover survey of the Survey Area (all land within the Site and some of the immediately bordering habitats where access was agreed), broadly following the Phase 1 habitat survey methodology as set out in Joint Nature Conservation Committee guidance (Joint Nature Conservation Committee, 2010). This survey method records information on habitat types and is 'extended' to record any evidence of and potential for protected or notable species to be present. Plant names recorded during the survey follow (Stace, 2019).

¹⁴ Section 40 of the Natural Environment & Rural Communities Act 2006 requires that very public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. The Secretary of State has drawn up, in accordance with Section 41 of the Act and in consultation with Natural England, a list of habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

During the walkover survey, the following protected or notable species are considered:

- **Badger:** the survey involves searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in (Scottish Natural Heritage, 2018) and (Harris, 1989).
- **Bats:** the survey involves searching for potential roosting sites for bats within trees and structures (such as buildings, bridges or underground features such as mines) and categorising the potential of those trees or structures to support roosting bats (negligible to high, or confirmed roost), in accordance with Bat Conservation Trust (BCT) (Collins, J. (Eds.), 2016) guidance.
- **Birds:** the survey involves assessing the potential of habitats within the Survey Area to support breeding, wintering or migrating birds, either individually notable species or assemblages of both common and rarer species;
- **Great crested newt:** the survey involves assessing the potential of habitats within the Survey Area to support great crested newt, following English Nature (English Nature, 2001) and Froglife (Froglife, 2001) guidance;
- **Reptiles:** the survey involves assessing the potential of habitats within the Survey Area to support reptiles (typically adder, grass snake, common lizard and slow worm only, though in some locations and habitat types (most notably heathland) may also include smooth snake and sand lizard), following Froglife (Froglife, 1999) and JNCC (Joint Nature Conservation Committee, 2003) guidance;
- **Protected or Notable species of plants:** the survey involves recording protected or notable plant species;
- **Other notable species:** the survey involves assessing the potential of habitat within the Survey Area to support other Notable Species, such as hedgehog, brown hare, polecat or common toad;
- **Non-native invasive plant species:** the survey involves recording evidence of the presence of invasive plants listed on (Wildlife and Countryside Act, 1981 (as amended)) and subject to strict legal control.

Tree Bat Roost Suitability Assessment

Buildings, trees and other structures were graded as to their suitability for supporting roosting bats using (Collins, J. (Eds.), 2016), an extract of which is provided interpreted in the table below.

Table 7: Criteria for bat roost potential assessment of buildings and trees

Roost Potential	Description	Surveys Required (Trees)
Confirmed roost	Evidence of roosting bats found during initial daytime inspection.	3 – including 1 dawn as a minimum
High *	Structures with one or more features suitable for bat roosting, with obvious suitability for larger numbers of bats.	3 – including 1 dawn as a minimum
Moderate	Structure with one or more potential roost sites that could be used due to size, shelter and protection but unlikely to support a roost of high conservation status.	2- including 1 dawn as a minimum
Low	Structure with one or more potential roosting sites used by individual bats opportunistically. Insufficient space, shelter or protection to be used by large numbers of bats.	Precautionary Mitigation Approach, some instances may require further survey

Roost Potential	Description	Surveys Required (Trees)
Negligible	No or negligible features identified that are likely to be used by roosting bats	None

Limitations

The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

An ecological survey represents a 'snapshot' in time of the ecological condition of a Site. The ecological character of a Site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats potential to support protected species.