Killymallaght BESS, County Derry

Ecological Impact Assessment (EcIA)

Client:

Renewable Energy Systems Ltd.

Report Reference:

RSE_7792_R1_V1_EcIA

Issue Date:

June 2024

RammSanderson

ECOLOGY
FLOOD RISK
ARBORICULTURE
HABITATS
TRAINING

CIEEM
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PROJECT			
Client:	Renewable Energy Systems Limited		
Project:	Killymallaght BESS		
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Report Title	Ecological Impact Assessment		

DOCUMENT CONTROL

Originated:	**RB** MCIEEM, CEnv	Associate Ecologist	18/06/2024
Technical Reviewed:	**NW** MRes	Ecologist	25/06/2024
Approved for Issue:	**OR** MCIEEM	Director	26/06/2024
Issued:	**NW** MRes	Ecologist	28/06/2024
Revisions:			

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DISCLOSURE:

EXECUTIVE SUMMARY

i RammSanderson Ecology Ltd were commissioned by Renewable Energy Systems Limited to undertake an Ecological Impact Assessment to support the full planning application for provision of an energy storage facility (the Scheme) on existing agricultural land situated off Trench Road, Killymallacht in County Derry, Northern Ireland at approximate OSGR C 42187 10349 (the Application Site).

ii The Application Site is approximately 3.82ha in size and is comprised of a single sheep-grazed field bounded by gorse dominated hedgerows on three sides.

iii The hedgerows around the Application Site will be retained as part of the Scheme. Habitat losses to enable construction of the energy storage facility are restricted to loss of approximately 2ha of modified grassland which is heavily sheep grazed and species poor. The landscaping scheme allows for creation of wildflower meadow (comprising approximately 0.8ha of other neutral grassland, enhanced from the current grassland on site), native shrub planting (approximately 0.3ha), native hedgerow planting along the Trench Road boundary (approximately 0.2km), and native woodland planting (approximately 0.30ha) as well as creation of a Sustainable Urban Drainage system within the Site.

iv No evidence of protected species was recorded within the Application Site; nesting birds however are likely to make use of the dense hedgerows bordering the field and could be potentially impacted by the works. The hedgerows will be retained as part of the proposals for the Scheme; however, should any pruning be required to facilitate the construction works, then mitigation to either avoid the nesting season or to check vegetation prior to pruning would be required to protect active nests. The hedgerows lie along rocky bases which offer some potential refuge for common reptiles if present in the area, and the hedgerows may also offer some potential for use on occasion by other species including bats, terrestrial invertebrates, Irish hare and badgers therefore a precautionary approach to the construction works will be implemented to minimise risk of harm to any individuals present. No other protected species-specific mitigation is considered necessary for the Scheme.

v This Scheme would deliver a 38.71% net gain of habitat units and 56.42% gain in hedgerow units. Whilst there is currently no legislation in Northern Ireland making Biodiversity Net Gain a mandatory requirement, this exceeds standards in other parts of the UK and is considered to be a significant increase in value of the site overall.

CONTENTS

FIGURES

TABLES

1 INTRODUCTION

1.1 Terms of Reference

i RammSanderson Ecology Ltd (RS) were commissioned by Renewable Energy Systems (RES) Limited (the Applicant) to undertake an Ecological Impact Assessment (EcIA) to support the detailed planning application for provision of an energy storage facility (the Scheme) on existing agricultural land situated alongside Trench Road, County Derry at approximate OSGR C 42187 10349. All land situated within the red line of the Scheme is hereafter referred to as the Application Site and is shown on the Site Context Plan (Figure 1).

ii The purpose of this EcIA 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 EcIA 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 EcIA 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 EcIA forms part of the supporting technical documentation for the planning application submitted for the Scheme and has been undertaken with reference to current good practice[2] 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 relates to the construction of a Battery Energy Storage System (BESS) of 50Mw.

ii It also involves associated habitat clearance and creation, as shown on Figure 2 (Landscape Visualisation).

iii The proposed development will consist of the installation of several battery enclosures, associated foundations, transformers, inverters, electrical infrastructure, security infrastructure, access track, crane hardstanding, storage containers and Sustainable Urban Drainage infrastructure (SuDs).

iv During construction, temporary construction facilities will include a site office, welfare areas, parking, and storage areas for plant and materials.

v Working hours during construction are anticipated to be Monday to Friday: 08:00 to 18:00 inclusive, and Saturday 08:00 to 13:00, inclusive.

vi Construction works are anticipated to take place over an approximate 12 month period. Figure 3 shows the proposed programme of works.

1.3 The Application Site

i The Application Site is located alongside Trench Road, Killymallaght, County Derry at approximate OSGR C 42187 10349 and is approximately 3.82 ha in size.

[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.

ii The Application Site currently comprises of a single sheep-grazed field bounded by gorse dominated hedgerows on three sides with Trench Road along the remaining (eastern) boundary. The surrounding landscape is predominantly agricultural.

2 METHODOLOGY

2.1 Scope of the EcIA

i The EcIA has been undertaken as follows:

- Define the Study Area for the assessment, which considers the Zone of Influence[3] (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 Important Ecological Features (IEFs) in the context of the EcIA.
- Assess the potential impacts on IEFs as a result 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 (BNG).

2.2 Important Ecological Features

i The EcIA 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 EcIA 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 EcIA, the following are considered IEFs requiring detailed assessment:

- Statutory designated sites.
- Non-statutory designated sites.
- Northern Ireland Priority Habitats and Species[4]
- Irreplaceable habitats including ancient woodland and veteran trees.
- Individual habitat types or mosaics that may not quality as priority habitats but form an important part of ecosystems and their function.
- Legally protected species[5]
- Species of conservation concern, Red Data Book (RDB) species – UK[6].
- Birds of Conservation Concern – UK[7].

iii The EcIA has also considered legally controlled plant species listed as invasive on Schedule 9 Part II of the Wildlife Order.

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

[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] The Northern Ireland Priority Habitat and Species lists (listed because of their decline, rarity and importance in an all-Ireland and UK context) as produced by the Department of Agriculture, Environment and Rural Affairs (DAERA) under the provisions of The Wildlife and Natural Environment Act (Northern Ireland) 2011.

[5] Legally protected species are those listed on The Wildlife (Northern Ireland) Order 1985 (the Order) and amendment The Wildlife (Amendment) (Northern Ireland), The Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland) 1995 (as amended) and The Conservation (Natural Habitats &c.) (Amendment) Regulations 2007 and the Protection of Badgers Act 1992.

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

[7] (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.

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 EcIA.

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[8]	Field Survey Study Area[9]
Designated Sites and Habitats	1km	Within and adjacent to the Application Site
Protected and notable species	1km	Within and adjacent to the Application Site

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 EcIA, 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 was obtained from the Centre for Environmental Data and Recording (CEDaR) in January 2024 and the Northern Ireland Environment Agency (NIEA) Natural Environment Map Viewer for Northern Ireland (https://gis.daera-ni.gov.uk) website was reviewed in June 2024.

2.4.2 Planning Policy

i To demonstrate how the Scheme accords with relevant national and local planning policy, the following have been reviewed as part of this assessment:

- The Strategic Planning Policy Statement 2015;
- Department for Regional Development: Regional Development Strategy, 2012 (RDS 2035);
- Derry City & Strabane District Council Local Development Plan (LDP) 2032 – Draft Plan Strategy; and
- Derry City & Strabane District Council Local Development Plan (LDP) 2032 – Draft Plan Strategy, Evidence Base Paper EVB21: Natural Environment.

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 The Preliminary Ecological Appraisal walkover survey was undertaken on 18th January 2024. This involved recording and mapping all habitat types present within the Survey Area and assigning them a relevant UK Habitat Classification code. Information was also gathered to support a Biodiversity Impact Assessment for the Scheme (including consideration of habitat condition and diversity). The Preliminary Ecological Appraisal survey also

[8] Distance measured from the Application Site Boundary.
[9] Distance measured from the Application Site Boundary.

considered protected/notable species and looked for evidence of their presence or potential for them to be present within the Application Site (for foraging, shelter or migration).

iii A detailed methodology for this survey including limitations/deviations (where applicable) is presented in Appendix 2.

iv No other field surveys have been undertaken to support this EcIA as they were considered unnecessary (see Section 3 for more details).

2.6 Assessment criteria

i This EcIA 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

i 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*[10] and include diversity, rarity and naturalness.

ii For this EcIA, 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 (England): such as Areas of Special Scientific Interest (ASSI);
- Regional (*): such as populations of species which enrich biodiversity on a regional scale and whose loss would significantly affect the species national distribution.
- County: such as Local Nature Reserves (LNR) or populations of species which qualify for Local Wildlife Site (LWS) designation.
- Local: undesignated ecological features such as old hedgerows, priority inventory woodlands, ponds etc.;
- Site: the feature has some ecological importance, but is not of a scale warranting consideration outside of the boundaries of the Application 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 county, but does not reach the threshold to be of National importance.*

iii Ecological features of Local or higher nature conservation importance are considered IEFs requiring detailed assessment. In addition, for the EcIA 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 under Article 10 of the Wildlife (Northern Ireland) Order 1985 (as amended);
- All nesting birds, legally protected under the Wildlife (Northern Ireland) Order 1985 (as amended); and
- Non-native invasive plant species, listed on Schedule 9 of the Wildlife (Northern Ireland) Order, 1985 (as amended) and the Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019.

[10] Ratcliffe, D. (1977). *A Nature Conservation Review*.

2.6.3 Temporal scope

i 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.

ii 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.

iii A high-level construction programme for the Scheme is outlined in Section 1. Once construction is complete, this EcIA has assumed that the operational phase of the Scheme will last for the foreseeable future.

2.6.4 Approach to mitigation

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

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

ii 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.

iii The Strategic Planning Policy Statement 2015 states that:
The Planning permission should only be granted for a development proposal which is not likely to result in the unacceptable adverse impact on, or damage to known:

- priority habitats;
- priority species;
- active peatland;
- ancient and long-established woodland;
- features of earth science conservation importance;
- features of the landscape which are of major importance for wild flora and fauna;
- rare or threatened native species;
- wetlands (includes river corridors); or
- other natural heritage features worthy of protection, including trees and woodland.

A development proposal which is likely to result in an unacceptable adverse impact on, or damage to, habitats, species or features listed above may only be permitted where the benefits of the proposed development outweigh the value of the habitat, species or feature. In such cases, appropriate mitigation and/or compensatory measures will be required.

2.6.5 Approach to enhancement

iv Throughout this EcIA, the potential to secure biodiversity enhancement, and therefore overall biodiversity net gain as a result of the Scheme, has been considered.

v Although not a statutory requirement in Northern Ireland, a Biodiversity Impact Assessment has been undertaken making use of the England Department for Environment, Food and Rural Affairs (DEFRA) statutory metric tool. A summary of is provided in this EcIA (Section 5); the metric tool itself will be made available as part of the project documentation.

2.7 Limitations to the Assessment

i The ecological surveys undertaken to support this EcIA 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 EcIA. See Appendix 2 for further information.

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 3.

iv Where it has not been possible to achieve 100% survey coverage for a habitat or species, the baseline conditions have been based on a reasonable precautionary approach, supported by the results of the desk study.

3.1 Designated Sites

i There are no statutory designations within the Study Area.

ii There are also no non-statutory designations within the Study Area.

iii The closest Area of Special Scientific Interest (ASSI) is located approximately 2.8km west of site (River Foyle and tributaries ASSI). The closest Local Wildlife Site (LWS) is located approximately 2km north (Kittybane Quarry LWS). All other designations including Special Areas of Conservation (SAC), Special Protection Areas (SPA), National Nature Reserves (NNR) and Ramsar Sites are located over 5km from the Application Site.

3.2 Habitats

3.2.1 Desk Study

i There is a block of woodland approximately 0.8km north-east of the Application Site that is listed on the priority habitat inventory. This is considered to be of Local nature conservation value.

ii No other priority habitats e.g. ancient woodland, peatland etc. are present within the Study Area.

3.2.2 Field Survey

iii Table 2 summarises the results of the habitat survey. Habitats are shown on Figure 4, with specific features highlighted by Target Notes. No invasive plant species were recorded during the field survey.

Table 2: Habitats within Survey Area

Habitat (UKHab Code)	Description	Measurement	Photograph(s)
Modified grassland (g4)	Large sheep grazed species poor improved grassland field – intensively grazed by sheep and evidence of agricultural machinery in compartment. Some inundated grassland towards far north corner of field. Assessed as being in poor condition and of low distinctiveness. The habitat did not reach moderate or good condition due to failing the following: Physical damage is evident in less than 5% of total grassland area; examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of	3.82 ha	

Habitat (UKHab Code)	Description	Measurement	Photograph(s)
	access, or any other damaging management activities; sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed; there are 6-8 vascular plant species per m2 present, including at least 2 forbs. *Note - this criterion is essential for achieving Moderate or Good condition.* This habitat dominates the Application Site, contributing almost 100% of its overall area. Species recorded: Perennial rye grass, cocksfoot, mouse ear, chickweed and compact rush.		
Native hedgerow (h2a)	Three hedgerows forming the southern, western and northern boundaries of the Application Site. These are assessed as being in moderate condition and of low distinctiveness. The condition has been assessed as moderate, as it achieves the following criteria in the condition assessment: Height >1.5m average along length. Width >1.5m average along length. Gap - hedge canopy continuity - Gaps make up <10% of total length; and No canopy gaps >5 m. Nutrient-enriched perennial vegetation - Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground. Invasive and neophyte species - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. The hedgerow bases are comprised of mounds of boulders providing potential refugia for a range of species. H1 - A thin strip of gorse scrub which is managed as a hedgerow. Recently flailed. Dominated by gorse with bramble and hawthorn also recorded. H2 - Gappy hedgerow with middle section being comprised solely of bramble scrub. Species present include hawthorn, bramble, birch, gorse and common lime. H3 - Leggy hedgerow dominated by hawthorn with one semi mature ash present. Recently flailed. Other species present include blackthorn and gorse.	0.566 km	 H1  H2  H3

Habitat (UKHab Code)	Description	Measurement	Photograph(s)
Individual (rural) Trees (h200)	Two trees recorded along boundary of Application Site associated with the hedgerows. These are assessed as being in moderate condition and of medium distinctiveness. Considered to be of moderate condition as they meet the following criteria in the condition assessment: The tree is a native species (or at least 70% within the block are native species). The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). More than 20% of the tree canopy area is oversailing vegetation beneath. However, the trees did not reach good condition due to failing the following: Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height. The tree is mature (or more than 50% within the block are mature). One silver birch (small) and one ash (medium). All trees showed evidence of prior pruning. No cavities (other than superficial) or cracks were noted. Small trees having a trunk diameter at chest height greater than 7.5cm and less than or equal to 30cm. Medium trees having a trunk diameter at chest heigh greater than 30cm and less than or equal to 60cm.	N/A	 Silver birch  Ash
Built linear feature – fence (u1e)	Fence along Trench Road boundary of Application Site.	N/A	

iv The Application Site is dominated by the species poor modified grassland – heavily grazed and disturbed by vehicle tracking. This habitat is considered to be of Negligible value for nature conservation given the lack of floral diversity it offers, lack of shelter for fauna and as a result of its intense grazing regime it creates suboptimal

conditions for foraging (e.g. for bats, Irish hare etc). This habitat is common and widespread across the local area.

v The hedgerows and individual trees on the Application Site, whilst also common and widespread across the local area, offer some shelter and foraging opportunities for a range of fauna, in particular nesting birds (see 3.5 below) and provide some floral diversity. These features are considered to be of Site level nature conservation importance.

3.3 Amphibians

3.3.1 Desk Study

i There were no recent records of smooth newts within the Study Area.

ii There are no water bodies within 250m of the Application Site (the waterbody plan is provided as Figure 5).

3.3.2 Field Survey

i No aquatic habitat was recorded within the Survey Area that could provide potential habitat for amphibians.

ii Due to a lack of suitable waterbodies in the local area, smooth newts are therefore considered likely absent from the local area. For these reasons, whilst some potential refugia/terrestrial habitat for amphibians was recorded within the Survey Area (along the rocky hedgerow bases) it is considered highly unlikely smooth newts would be present within the Application Site.

iii This species has not been assigned a geographical scale of nature conservation importance and is not considered further in this assessment.

3.4 Reptiles

3.4.1 Desk Study

i There were no recent records of reptiles within the Study Area.

3.4.2 Field Survey

i The hedgerows within the Survey Area have been laid with rocky mounds along their entire length which could provide suitable refugia/hibernacula and foraging/basking potential for common lizard around the boundaries of the Application Site, if present in the local area.

ii The modified grassland being intensively grazed and disturbed by vehicle tracking is less suitable for use by reptiles. The majority of the Application Site is therefore unsuitable for common lizard.

iii The Application Site is therefore considered to be of negligible nature conservation importance for common lizard.

3.5 Birds

3.5.1 Desk Study

i There were no records of notable bird species recorded within the Study Area.

3.5.2 Field Survey

i The hedgerows on site provide suitable habitat for nesting and foraging bird species; particularly in the areas of dense gorse present to the north-east and west of the Application Site.

ii Moderate levels of bird activity were recorded on the site although these were all common and widespread species only.

iii Two snipe were recorded foraging on the grassland to the east; however, due to the high levels of disturbance from sheep-grazing and vehicle tracking across the modified grassland field it is not considered to be suitable for ground nesting bird species.

iv It is considered unlikely that notable species, or large populations of birds would utilise the Application Site given the largely ubiquitous nature of the habitats present and habitat mosaic in the surrounding landscape.

v Given the potential nesting habitat offered along the hedgerows for common bird species, the Application Site is considered to be of Site nature conservation importance to nesting birds.

3.6 Badger

3.6.1 Desk Study

i There are no recent records of badger within the Study Area. A general record within 1 km dating from 1997 however indicates their historical presence in the area.

3.6.2 Field Survey

i No evidence of badger was recorded within the Survey Area. A mammal push through was recorded passing under the fenceline adjacent to Trench Road (TN1, Figure 4), no evidence of badger was noted (e.g. hairs).

ii Whilst the hedgerows offer potential habitat for badger migration, foraging and sett building, no setts were found to be present (visibility into all hedgerows being sufficient to confirm sett absence on the date of survey).

iii The intensively grazed modified grassland offers some foraging potential for badgers.

iv Whilst badgers may be present in the wider area and may make use of the Application Site for foraging on occasion, the lack of evidence of this species during the survey and presence of similar habitat in the wider landscape indicates the Application Site is unlikely to be of significant value to them and is considered to be of negligible nature conservation importance to this species.

3.7 Bats

3.7.1 Desk Study

i There were no records provided of bats within the Study Area.

3.7.2 Field Survey

Potential Bat Roosts

i All trees within the Application Site were subjected to a Ground Level Tree Assessment (GLTA) for bats. No Potential Roost Features (PRFs) were found and they have therefore been noted as having no suitability for roosting bats (Appendix 2 provides more information regarding the methodology and terminology used). All trees were small/medium in size, with low level superficial cavities only (ash tree) and not of significant age (see Table 2 above).

Potential Bat Activity

i The hedgerows have some limited suitability for commuting and foraging bats; however, they are generally small and gappy with no prominent trees present which lessens their overall value to bat species.

ii The grassland that makes up the majority of the Application Site is of limited potential for foraging bats as its heavily grazed nature and low botanical diversity is unlikely to encourage bat prey species (invertebrates) in any significant number or variety.

iii Given the above and as no PRFs are present, overall, the Application Site is considered to be of low value to bat species, therefore activity surveys were considered unnecessary to support this EcIA.

iv The Application Site is considered to be of negligible nature conservation importance for bats.

3.8 Terrestrial Invertebrates

3.8.1 Desk Study

i Multiple records of terrestrial invertebrates were provided for the Study Area dating from the mid-1990s from a local landfill site (Duncastle Road landfill). Given these records are approximately 30 years old and not for the Application Site itself (or similar habitats), they are not considered further in this assessment.

3.8.2 Field Survey

i No invertebrates were seen during the survey; however, as this was completed in January this does not indicate absence.

ii The grassland making up the majority of the Application Site is suboptimal for terrestrial invertebrates due to its intensively grazed nature and disturbance by vehicles. The hedgerows provide some potential for invertebrates associated with plant species along their length and invertebrates potentially make use of the mounds of boulders at their base.

iii The Application Site as a whole is considered unlikely to support any individually notable species or notable assemblages of invertebrates and the habitat mosaic is similar to those provided in the wider landscape. It is considered that the Application Site is of negligible nature conservation importance for terrestrial invertebrates.

3.9 Otter and Water Vole

3.9.1 Desk Study

i There were no records provided of otters or water vole within the Study Area. No watercourses are present within 250 m of the Application Site.

3.9.2 Field Survey

i No habitats were present within the Application Site or its immediate environs that would offer potential for water vole or otter.

ii These species have therefore not been assigned a geographical scale of nature conservation importance and are not considered further in this assessment.

3.10 Irish Hare

3.10.1 Desk Study

i The desk study confirmed Irish Hare have been recorded as present at least once in the Study Area (record for New Buildings, Lough Fyne, OSGR C422097) – however this record dates from 1998 so is over 25 years old. No recent records were provided.

3.10.2 Field Survey

i The intensively grazed and disturbed nature of the grassland dominating the Application Site is suboptimal for use by hare due to the lack of cover provided. The hedgerow bases are rocky and offer little opportunity for form creation.

ii Whilst hare may pass through the Application Site if present in the wider landscape it offers negligible potential for form creation and limited foraging/migration opportunity.

iii No hares were seen during the survey or evidence of their presence noted.

iv Whilst Irish hare may be present in the wider area and may make use of the Application Site on occasion, the lack of evidence of this species during the survey and suboptimal quality of habitats within the Application Site (as well as presence of similar habitat in the wider landscape) indicates the Application Site is unlikely to be of significant value to them and is considered to be of negligible nature conservation importance to this species.

3.11 Other Priority/Notable species

3.11.1 Desk Study

i No results were provided for Irish stoat, red squirrel or pine marten within the Study Area

3.11.2 Field Survey

i Whilst the hedgerows and their rocky bases may offer some potential for Irish stoat, as these are gappy and surrounded by exposed intensively grazed grassland, they are considered suboptimal and the likelihood of stoat being present is considered very low.

ii The habitats within the Application Site do not offer habitat for red squirrel, pine marten or any other priority/notable species.

iii These species have therefore not been assigned a geographical scale of nature conservation importance and are not considered further in this assessment.

3.12 Future Baseline

i The management of the Application Site, which includes regular sheep grazing of the grassland is unlikely to change between the time the surveys were undertaken and the time the development of the Application Site would take place. Therefore, the baseline described above in Sections 3.2 to 3.11 is not expected to change prior to development of the Application Site.

3.13 Summary of Nature Conservation Importance

i Table 3 summaries the features that have been recorded in the Study Area and their nature conservation importance.

Table 3. Summary of Nature Conservation Importance

Ecological Feature	Geographical Scale of Nature Conservation Importance
Priority Habitats off-site (woodland)	Local
On-site Hedgerows and Individual Trees	Site
On-site Modified Grassland	Negligible
Birds	Site
Common lizard, badgers, bats, terrestrial invertebrates and Irish hare	Negligible

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 general mitigation measures identified in Section 4.1 onwards will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the Application Site.

4.1 Habitats

4.1.1 Construction Impacts and Mitigation

i Although there is a priority habitat within the Study Area (woodland block listed on the priority habitat inventory); given the distance of the Application Site from this habitat (>0.8km) and type of Scheme proposed there would be no direct effect on this area as a result of the construction phase. No woodland habitat is present within the Application Site that would be lost or disturbed as a result of the Scheme so there would be no increase in fragmentation of woodland in the local area (see Section 4.1.3 below regarding habitat creation as a result of the Scheme).

ii Whilst there is the usual small risk of pollutants being released during the construction phase (potential arising from general use of plant/vehicle fuel, chemical/oil storage, dust generation etc.), these will be managed appropriately as part of the scheme design/approach following standard working practices. As a result, and given the distances involved and scale of the Scheme, it is also considered highly unlikely there would be any indirect effect e.g. as a result of dust generation or air pollution on the woodland block.

iii Habitat losses to enable construction of the energy storage facility are restricted to loss of approximately 2ha of sheep grazed modified grassland which is heavily grazed and species poor. This habitat is in poor condition, not species diverse and does not support any notable/protected species. Loss of this habitat of Negligible conservation value is not considered to be significant given the lack of biodiversity it currently supports and as it is not unique in the wider landscape.

iv All existing hedgerows and individual trees within the Application Site will be retained. These are of Site level nature conservation value and offer habitat for nesting birds (as well as some potential for common lizard, terrestrial invertebrates, Irish hare, bats and badgers).

v The landscape scheme allows for creation of wildflower meadow (comprising approximately 0.8ha of neutral grassland, enhanced from the current grassland on site), native shrub planting (approximately 0.3ha), native hedgerow planting along the Trench Road boundary (approximately 0.2km), and native woodland planting (approximately 0.30ha) as well as creation of a Sustainable Urban Drainage system within the Site.

4.1.2 Operation Impacts and Mitigation

i No impacts are expected to occur to habitats within the Application Site or the Study Area during operation of the Scheme.

4.1.3 Residual Effects and Compensation Measures

i Creation of habitats within the Application Site, as detailed above, would deliver a net gain for biodiversity as part of the Scheme. This is considered to be significant at the Site scale.

ii The habitats enhanced/created will increase the diversity of the habitat mosaic and provide new habitats not currently present on site (neutral grassland, broadleaved woodland and Sustainable Urban Drainage.). Enhancement of the modified grassland will increase floral diversity and ground cover which, as part of the wider

habitat mosaic, will in turn benefit a range of species and increase potential for use of the Application Site by terrestrial invertebrates, Irish hare, Irish stoat, bats, reptiles and badgers.

iii Additional information regarding biodiversity net gain is provided in Section 5 below.

4.2 Birds

4.2.1 Construction Impacts and Mitigation

i Hedgerows will be retained as part of the Scheme. However, should any localised pruning be required to facilitate construction working areas clearance of vegetation during the nesting bird season (taken to be March to August, though with some seasonal and species variations) would risk damaging or destroying active birds' nests. To prevent this, any clearance of vegetation that is required would be undertaken outside of the nesting bird season. If this isn't possible, a check of vegetation to be cleared would be undertaken within 24 hrs of the clearance taking place. If any active birds nests were discovered, they would be left in place with a buffer of vegetation surrounding them until such time as the young had fledged or the nest was no longer active.

4.2.2 Operation Impacts and Mitigation

i No impacts are expected occur to birds during the operation of the Scheme.

4.2.3 Residual Effects and Compensation Measures

i No significant residual effect would occur to birds and no compensation is proposed.

ii Bird species may benefit from the Scheme as a result of increased tree/shrub nesting habitat and foraging provision and creation of a more diverse habitat mosaic which will offer foraging and nesting potential for a wider range of species than is currently likely to be present.

4.3 Other Protected/Notable Fauna

4.3.1 Construction Impacts and Mitigation

i The site does not offer optimal habitat for other fauna; however, there is a residual risk that species such as common lizard, badgers, bats, terrestrial invertebrates and Irish hare could occur on occasion within the Application Site.

ii These species (if present) are likely to be mainly associated with the hedgerows bordering the Site which will be retained within the Scheme.

iii Temporary flood lighting may be used during the construction process during the winter months in hours of reduced light only. All temporary lighting installations will be downward facing, and all lights switched off during daylight hours. Since this will not be utilised during bat active season, it is not anticipated to have an impact on this species. Since it will only be used for short periods, it is not anticipated to have a significant impact on any badger, or other mammal, foraging or commuting in the area.

iv A precautionary approach will be adhered to as good practice during construction works to minimise the risk of harm to any individuals that may be present or passing through the Application Site, including the following:

- maintenance of a tidy site throughout the construction phase;
- storage of materials and vehicles in designated (and where appropriate bunded) areas;
- adherence to standard pollution prevention control measures;
- covering all excavations overnight or where this is not possible providing a ramp to allow an exit point for animals;
- undertaking a visual check each morning before works commence for any animals that may be present; and
- if any protected/notable species are seen (or evidence of their presence is noted) during the works, operations should halt immediately and an ecologist should be contacted for advice regarding how to proceed.

4.3.1 Operation Impacts and Mitigation

i No nocturnal lighting is anticipated to be required during the operational phase of the Scheme. It would only be used in an emergency maintenance situation. Therefore, disruption to crepuscular and nocturnal fauna, such as bats and badgers, due to lighting is not anticipated.

ii No impacts are expected to occur to other protected/notable species during the operation of the Scheme.

4.3.2 Residual Effects and Compensation Measures

i No significant residual effect would occur to other protected/notable species and no compensation is proposed.

ii A range of fauna will benefit from the Scheme as a result of the landscape proposals and creation of a more diverse habitat mosaic with increased foraging/shelter potential.

4.4 Cumulative Impact Assessment

i No significant residual ecological effects have been identified for this Scheme. There would therefore be no cumulative impact with other plans or proposals in the area.

5 BIODIVERSITY NET GAIN

i The Biodiversity Impact Assessment (BIA) has utilised measurements and other applicable information for habitat baseline, retention and creation within the Application Site to populate the DEFRA statutory biodiversity net gain metric, in order to understand the net change in habitat units present as a result of the Scheme. There was no requirement for off-site consideration/calculations for this Scheme.

ii The on-site baseline for the Application Site is 7.79 habitat units, 2.26 hedgerow units and 0 watercourse units. The BIA Baseline Habitat Plan is provided as Figure 6

iii Accounting for all the habitat loss and creation detailed above in Section 4.2, the Scheme would result in a net gain of 3.02 habitat units; this is equivalent to a 38.71% gain within the Application Site. The Scheme would also result in a gain of 1.28 hedgerow units; equivalent to a 56.42% gain within the Application Site. The Scheme would also create 0.13 watercourse units; a new habitat type for the Application Site.

iv Figures 7 and 8 show the habitat retention visualisation and the habitat creation visualisation.

v A copy of the Statutory Biodiversity Metric for the Scheme has been submitted as part of the planning application for the Scheme.

6 CONCLUSION

i This EcIA is based on a desk study and ecological surveys undertaken in January 2024. The scope of the surveys was based on the EZoI of the Scheme and included an extended Phase 1 habitat survey following UKHabs methodology, habitat condition surveys and a GLTA for bats. The ecological features present within the Survey Area are shown on Figure 4.

ii Once all relevant available information was obtained, the significance of effects (both positive and negative) on IEFs was assessed.

iii The Applicant has agreed that the avoidance, mitigation, and compensation measures identified in Section 4 and 5 above will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the Application Site. The Scheme has maximised opportunities to incorporate and enhance biodiversity within the proposals wherever possible.

iv Impacts from the construction or operational phases of the Scheme would not result in any of the following significant negative residual effects:

- Undermine the conservation objectives or condition of designated sites and their features of interest;
- A change in ecosystem structure and function; and,
- Threaten the conservation status of undesignated habitats or protected and notable species.

v Overall, the Scheme would result in a biodiversity net gain of 3.02 habitat units (equivalent to a 38.71% gain) and 1.28 hedgerow units (equivalent to a 56.42% gain) within the Application Site. The habitat mosaic that will be created will offer a greater floral diversity and provide increased shelter and foraging opportunities for a range of fauna.

vi Taking avoidance, mitigation and compensation measures into account, the Scheme conforms in respect of biodiversity to all relevant legislation and the principles of the national/local planning policy framework.

vii The biodiversity net gain and opportunities provided for a range of wildlife as a result of the Scheme aligns with sustainable development objectives of the Strategic Planning Statement for Northern Ireland and Derry City & Strabane District Council Local Development Plan (LDP) 2032 – Draft Plan Strategy "*by ensuring that natural heritage and associated biodiversity is conserved and enhanced as an integral part of social, economic and environmental development"*

7 FIGURES

RammSanderson

Title: Site Context Plan	
Project: Killymallaght BESS, Trench Road, Co. Derry, NI	
Client: Renewable Energy Systems Limited	
Date: 06/03/2024	Fig: 1 Author: LG
A4 Scale: 1:2000	ID: RSE_7792_STC_0324_V2R1

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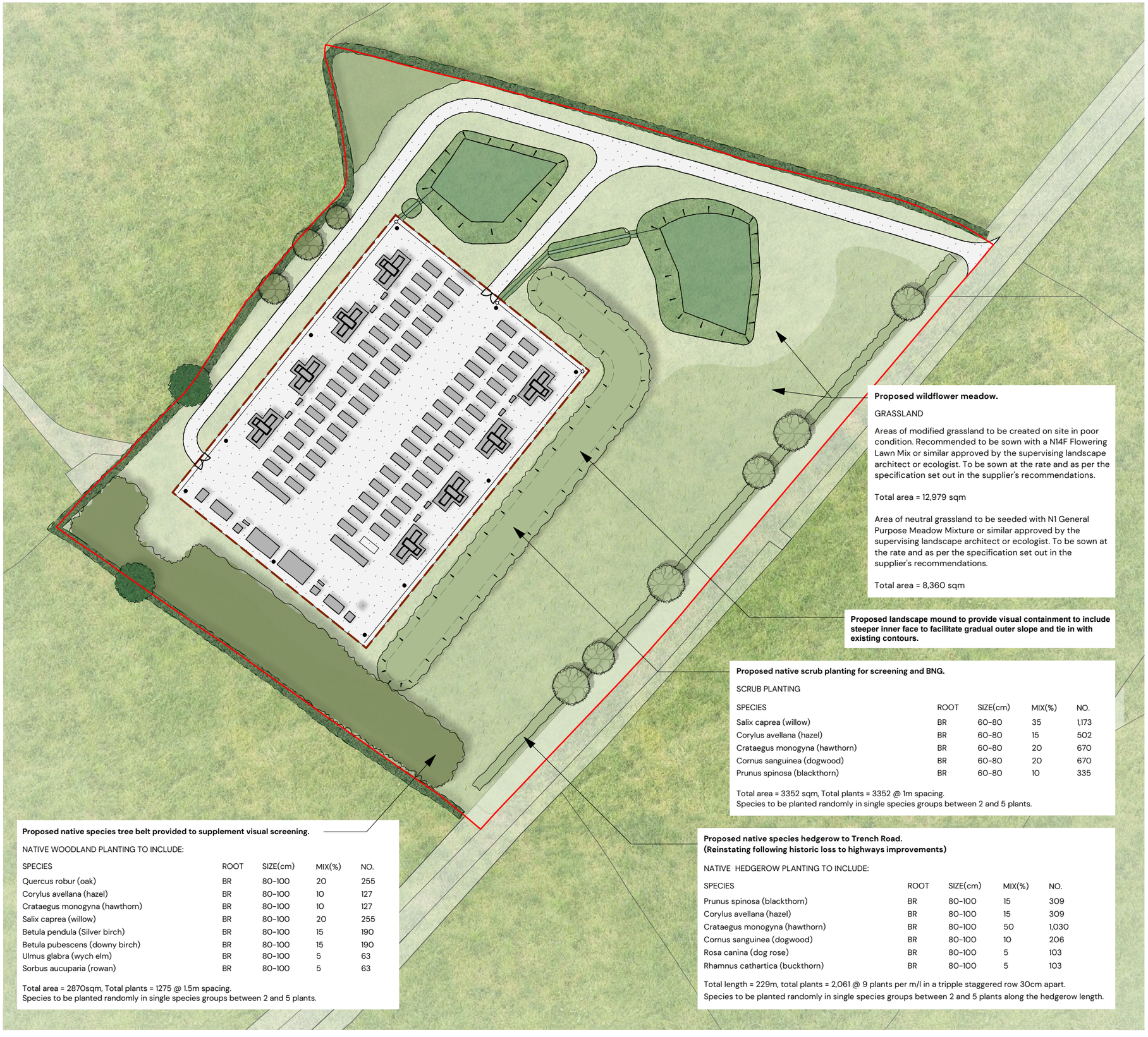


Proposed native species tree belt provided to supplement visual screening.

NATIVE WOODLAND PLANTING TO INCLUDE:

SPECIES	ROOT	SIZE(cm)	MIX(%)	NO.
Quercus robur (oak)	BR	80-100	20	255
Corylus avellana (hazel)	BR	80-100	10	127
Crataegus monogyna (hawthorn)	BR	80-100	10	127
Salix caprea (willow)	BR	80-100	20	255
Betula pendula (Silver birch)	BR	80-100	15	190
Betula pubescens (downy birch)	BR	80-100	15	190
Ulmus glabra (wych elm)	BR	80-100	5	63
Sorbus aucuparia (rowan)	BR	80-100	5	63

Total area = 2870sqm, Total plants = 1275 @ 1.5m spacing.
Species to be planted randomly in single species groups between 2 and 5 plants.

Proposed wildflower meadow.

GRASSLAND

Areas of modified grassland to be created on site in poor condition. Recommended to be sown with a N14F Flowering Lawn Mix or similar approved by the supervising landscape architect or ecologist. To be sown at the rate and as per the specification set out in the supplier's recommendations.

Total area = 12,979 sqm

Area of neutral grassland to be seeded with N1 General Purpose Meadow Mixture or similar approved by the supervising landscape architect or ecologist. To be sown at the rate and as per the specification set out in the supplier's recommendations.

Total area = 8,360 sqm

Proposed landscape mound to provide visual containment to include steeper inner face to facilitate gradual outer slope and tie in with existing contours.

Proposed native scrub planting for screening and BNG.

SCRUB PLANTING

SPECIES	ROOT	SIZE(cm)	MIX(%)	NO.
Salix caprea (willow)	BR	60-80	35	1,173
Corylus avellana (hazel)	BR	60-80	15	502
Crataegus monogyna (hawthorn)	BR	60-80	20	670
Cornus sanguinea (dogwood)	BR	60-80	20	670
Prunus spinosa (blackthorn)	BR	60-80	10	335

Total area = 3352 sqm, Total plants = 3352 @ 1m spacing.
Species to be planted randomly in single species groups between 2 and 5 plants.

Proposed native species hedgerow to Trench Road.
(Reinstating following historic loss to highways improvements)

NATIVE HEDGEROW PLANTING TO INCLUDE:

SPECIES	ROOT	SIZE(cm)	MIX(%)	NO.
Prunus spinosa (blackthorn)	BR	80-100	15	309
Corylus avellana (hazel)	BR	80-100	15	309
Crataegus monogyna (hawthorn)	BR	80-100	50	1,030
Cornus sanguinea (dogwood)	BR	80-100	10	206
Rosa canina (dog rose)	BR	80-100	5	103
Rhamnus cathartica (buckthorn)	BR	80-100	5	103

Total length = 229m, total plants = 2,061 @ 9 plants per m/l in a tripple staggered row 30cm apart.
Species to be planted randomly in single species groups between 2 and 5 plants along the hedgerow length.

- Site Boundary
- Existing Vegetation to be Retained
- Proposed Layout and Hardstanding Area
- Proposed Fencing
- Proposed Native Tree Planting
- Proposed Woodland Shelter Belt
- Proposed Native Scrub Planting
- Proposed Native Hedgerow and Hedgerow Trees
- Proposed Modified Grassland
- Proposed Neutral Grassland
- Proposed SuDS
- Proposed Bund

NOTES:
- The outer slope of the bund is to be graded and landscaped.
- All soft landscape works are to be carried out in accordance with BS4478 "Code of Practice for General Landscape Operations" and BS3936:1992 "Recommendations for Cultivations and Planting in the Advanced Nursery Stock Category".
- Planting numbers indicative only.

DATE	NO	REVISION NOTE
07/06/2024	B	Client comments
05/06/2024	A	Client comments
16/05/2024	-	First Issue

Illustrative Landscape Masterplan

Killymallaght Energy Storage System

CLIENT
RES Ltd

N
0 10 25 m

DATE	SCALE	TEAM	APPRVD
16/05/2024	1:1250@A3	JW	JWA

DRAWING NUMBER

P23-2714_EN_0007_B_0001

PEGASUS GROUP

Issue:

Figure 3: Proposed Programme of Works (provided by RES)

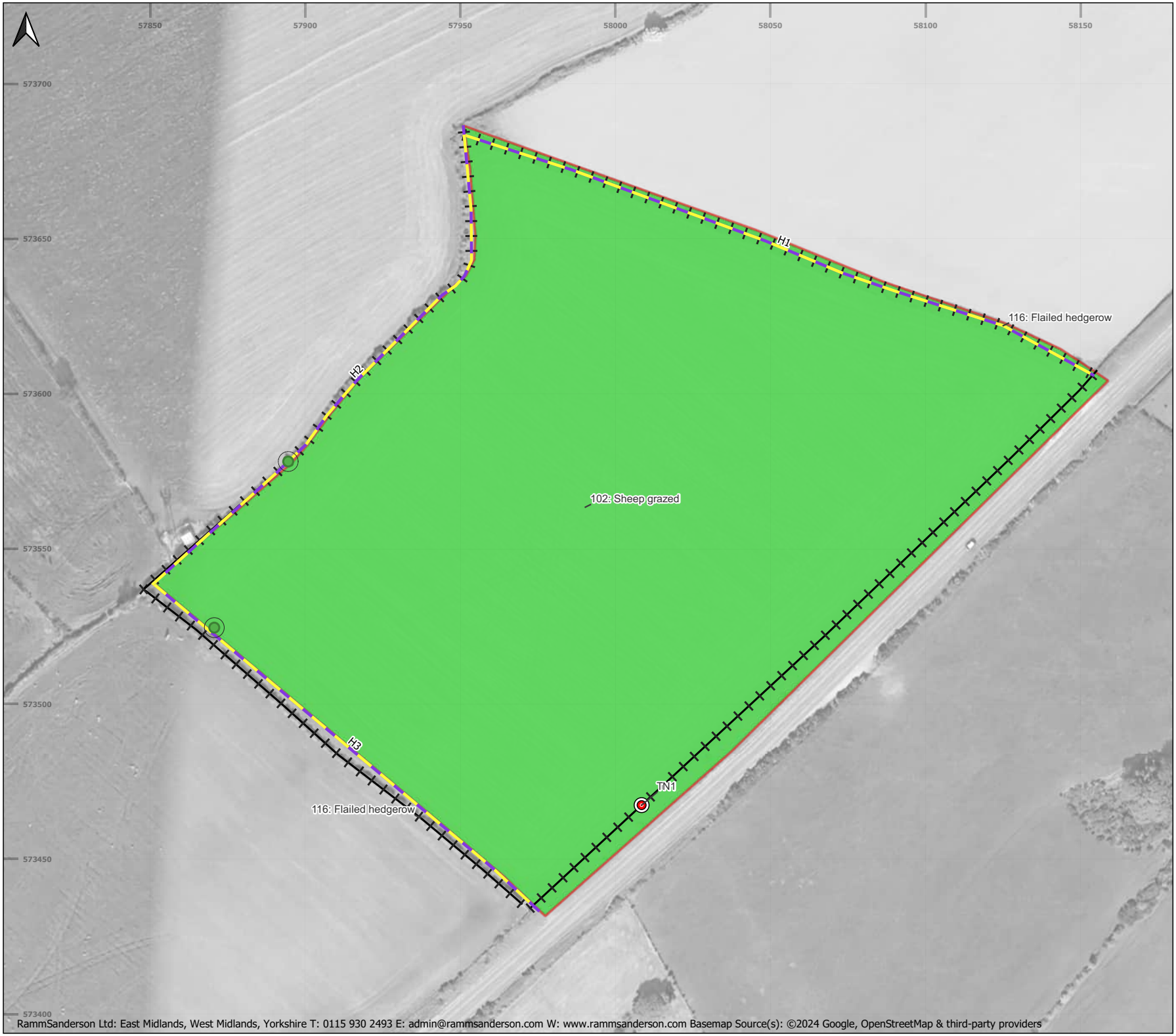
3.6 Programme of Works

The programme of works is anticipated to take place over approximately a 12-month period. An initial indication of the programme of works is provided below.

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Setup site welfare												
Construct site entrance												
Construct site tracks and hardstandings												
Construct drainage works												
Construct foundations												
Install battery enclosures												
Install batteries and PCSs												
Onsite cable works												
Substation installation												
Grid connection works												
Energisation												
Commissioning												
Testing												
Handover												

Table 2 - Indicative Programme of Works

A detailed programme of works will be produced prior construction commences.



Key

- Survey Boundary
- g4: Modified grassland
- h2a: Native hedgerow
- u1e: Built linear features - fence
- h200: Tree (medium)
- h200: Tree (small)
- Target Notes
  TN1: Mammal push through

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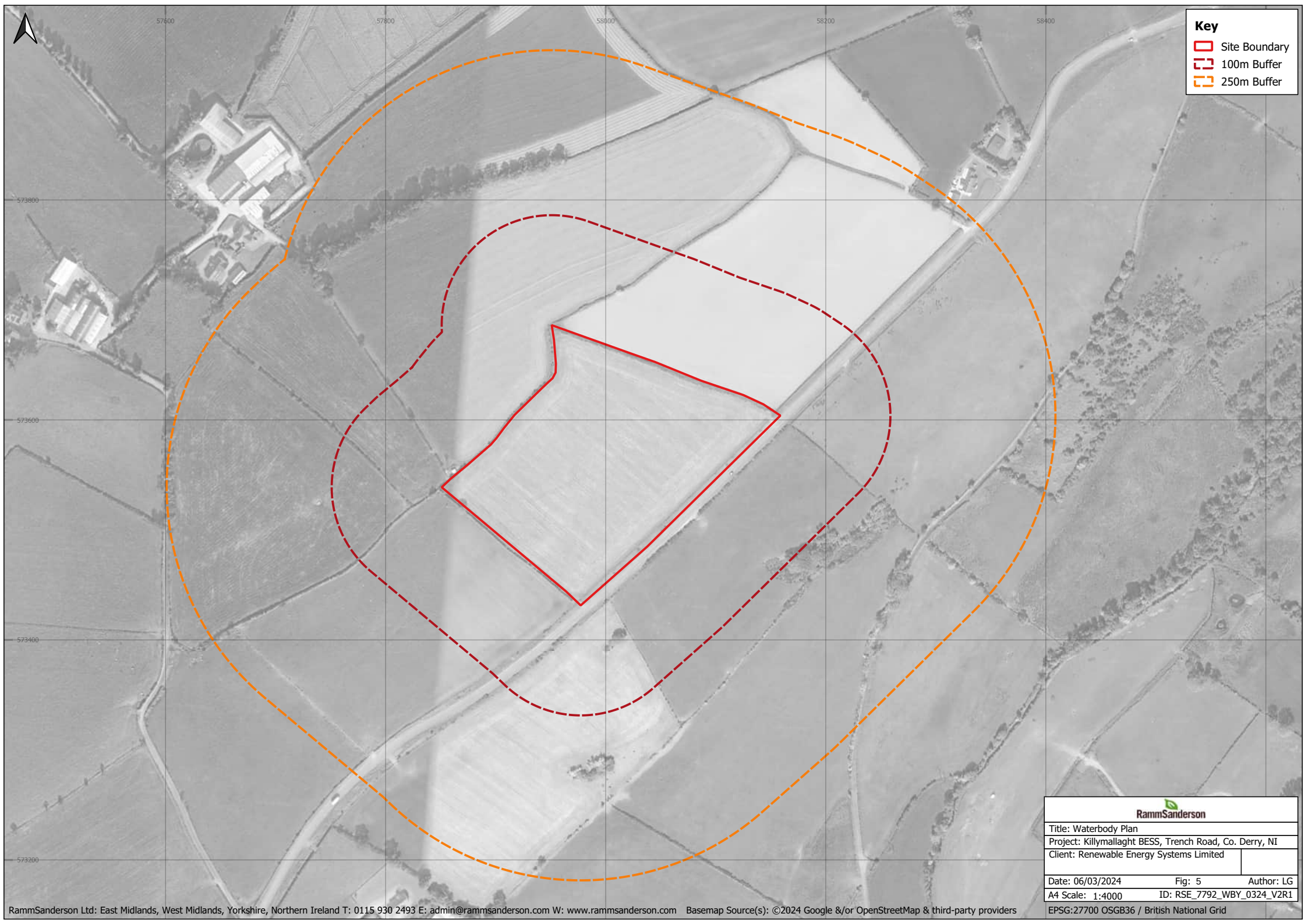
Title: UKHabs Habitat Plan	
Project: Killymallaght BESS, Trench Road, Co. Derry, NI	
Client: Renewable Energy Systems Limited	
Date: 08/05/2024	Fig: 4 Author: LG/RD
A4 Scale: 1:1600	ID: RSE_7792_UKH_0524_V2R1

EPSG:27700 OSGB36 / British National Grid



RammSanderson

Title: Waterbody Plan	
Project: Killymallaght BESS, Trench Road, Co. Derry, NI	
Client: Renewable Energy Systems Limited	
Date: 06/03/2024	Fig: 5 Author: LG
A4 Scale: 1:4000	ID: RSE_7792_WBY_0324_V2R1

EPSG:27700 OSGB36 / British National Grid

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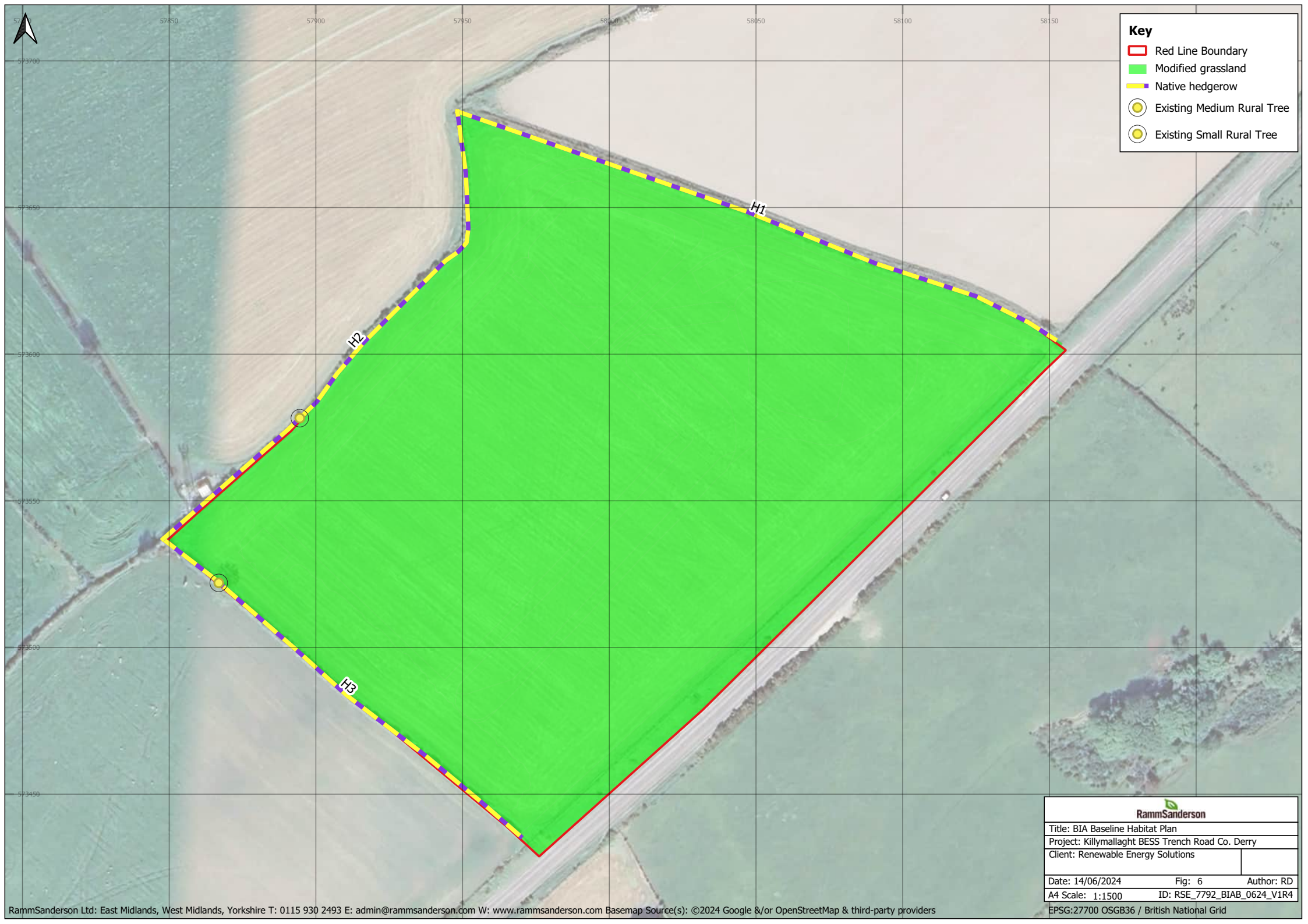

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Title: BIA Baseline Habitat Plan	
Project: Killymallaght BESS Trench Road Co. Derry	
Client: Renewable Energy Solutions	
Date: 14/06/2024	Fig: 6 Author: RD
A4 Scale: 1:1500	ID: RSE_7792_BIAB_0624_V1R4

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Key
Red Line Boundary
Habitats Retention
Enhanced
Retained
Lost
Watercourse Retention
Created
Hedgerow Retention
Created
Retained
Individual tree Retention
Created
Retained
57800
57850
57900
57950
58000
58050
58100
58150
573650
573600
573550
573500
573450
RammSanderson
Title: BIA Retention Habitat Plan
Project: Killymallaght BESS Trench Road Co. Derry
Plan Ref: R001v1 EN BIR Killymallaght BESS - LVIA_final PT1_2024-06-12_59
Client: Renewable Energy Solutions
Date: 14/06/2024
Fig: 7
Author: RD
A4 Scale: 1:1500
ID: RSE_7792_BIAR_0624_V1R4
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Title: BIA Proposed Habitat Plan	
Project: Killymallaght BESS Trench Road Co. Derry	
Plan Ref: R001v1 EN BIR Killymallaght BESS - LVIA_final PT1_2024-06-12_59	
Client: Renewable Energy Solutions	
Date: 14/06/2024	Fig: 8 Author: RD
A4 Scale: 1:1500	ID: RSE_7792_BIAP_0624_V1R4

EPSG:27700 OSGB36 / British National Grid

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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'.

To ensure The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) are operable after the end of the EU transition period, changes have been made by The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019. The changes are largely procedural and affect government and include the transfer of functions from the European Commission to the Department of Agriculture, Environment and Rural Affairs (DAERA).

There are no policy changes. Furthermore, there are no plans to amend the Annexes which reflect current scientific advice on vulnerable habitats and species. DAERA has a duty to have regard to the requirement to maintain conservation measures so that: the habitats within the national site network sites do not deteriorate; conservation objectives for each European site are met; and the species for which these sites have been designated are not significantly disturbed.

Designated Sites

There are no designated sites within the Study Area for this Project.

Habitats

A number of habitats have been designated as ones requiring priority conservation action under:

- the Northern Ireland Habitat Action Plans;
- UK Biodiversity Action Plan (UK BAP).

A parcel of woodland was identified within the Study Area – the Northern Ireland Woodland Inventory incorporates evidence collected from a series of research contracts let to identify and survey areas of woodland of high nature conservation value.

Protected Species

Bats

All species of bats are strictly protected under The Conservation (Natural Habitats etc.) Regulations (Northern Ireland) 1995 (as amended) (known as the Habitats Regulations). They are known as a European protected species. Under the Habitats Regulations it is a criminal offence to: deliberately capture, injure or kill a wild animal of a European protected species; deliberately disturb such an animal while it is occupying a structure or place which it uses for shelter or protection; deliberately disturb such an animal in such a way as to be likely to a) affect the local distribution or abundance of the species to which it belongs b) Impair its ability to survive, breed or reproduce, or rear or care for its young; or c) Impair its ability to hibernate or migrate; deliberately obstruct access to a breeding site or resting place of such an animal; or to damage or destroy a breeding site or resting place of such an animal. Where development works are at risk of causing one or more of the offences listed above, a mitigation licence from Northern Ireland Environment Agency (NIEA) can be obtained to facilitate the works that would otherwise be illegal.

Bats are also protected under domestic legislation - under the Wildlife (Northern Ireland) Order 1985 (as amended) it is illegal for anyone without a licence intentionally to kill, injure or handle a bat of any species, to possess a bat, whether alive or dead (unless obtained legally) or to disturb a bat when roosting.

Nesting Birds

All wild birds are protected under the Wildlife (Northern Ireland) Order 1985 (as amended), with some species afforded greater protection under Schedule A1 of the Order (golden eagle, white-tailed eagle, osprey, barn owl, peregrine and red kite).

Under the Wildlife (Northern Ireland) Order 1985 (as amended) it is an offence to intentionally or recklessly: kill, injure or take any wild bird; or take, damage or destroy the nest of any wild bird while that nest is in use or being built; at any other time take, damage or destroy the nest of any wild bird included in Schedule A1; or take or destroy an egg of any wild bird; or disturb any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird.

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

Amphibians

The smooth (or common) newt is the only species of newt found in Northern Ireland. They are protected under Article 10 of the Wildlife (Northern Ireland) Order 1985 (as amended).

It is an offence to: intentionally or recklessly kill, injure or take a newt; intentionally or recklessly damage or destroy, or obstruct access to, any structure or place that newts use for shelter or protection, or intentionally or recklessly damage or destroy anything which conceals or protects any such structure; or intentionally or recklessly disturb a newt while it is occupying a structure or place which it uses for shelter or protection. Although newts are widespread across Northern Ireland, suitable habitat for the species is in decline.

Reptiles

In Northern Ireland the common (or viviparous) lizard is protected under Article 10 of the Wildlife (Northern Ireland) Order 1985 (as amended). It is an offence to: intentionally or recklessly kill, injure or take a lizard; or intentionally or recklessly damage or destroy, or obstruct access to, any structure or place that lizards use for shelter or protection. Common lizards are also a priority species in Northern Ireland.

Badgers

Badgers and their setts are protected under Article 10 of the Wildlife (Northern Ireland) Order 1985 (as amended). It is an offence to: intentionally or recklessly kill, injure or take a badger; intentionally or recklessly damage or destroy, or obstruct access to, any structure or place (normally a sett) that badgers use for shelter or protection; intentionally or recklessly damage or destroy anything which conceals or protects any such structure; or intentionally or recklessly disturb a badger while it is occupying a structure or place which it uses for shelter or protection.

Irish Hare

In Northern Ireland, the Irish hare is protected under Schedule 6 of the Wildlife (Northern Ireland) Order 1985 (as amended) from killing/taking by certain methods but is not offered full protection (as for Schedule 5 species). Annual amendments to the Game Preservation (Special Protection for Irish Hares) Order (Northern Ireland) 2003 are also relevant.

Irish hare is listed on Appendix III of the Bern Convention (Anon, 1979) and Annex V(a) of the EC Habitats Directive (92/43/EEC), this Annex lists animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures.

Irish hare is also listed as an internationally important species in the Irish Red Data Book. Furthermore, subject to a local Northern Ireland and an All-Ireland Species Action Plan it is one of the highest priority species for conservation action in Northern Ireland.

Planning Policy

National Planning Policy

The Strategic Planning Statement for Northern Ireland (SPPS)

The Strategic Planning Statement for Northern Ireland (SPPS), 2015 was a statement policy from the Department for Environment (now Department for Agriculture, Environment and Rural Affairs – DAERA) on important planning matters that should be addressed across Northern Ireland. It reflected the Environment Minister's expectations for delivery of the planning system. It was agreed by the Northern Ireland Executive and judged to be in general conformity with the Regional Development Strategy 2035.

The SPSS had a statutory basis under Part 1 of the Planning Act (Northern Ireland) 2011 which requires the Department to formulate and co-ordinate policy for securing the orderly and consistent development of land and the planning of that development. The provisions of the SPPS apply to the whole of Northern Ireland and had to be taken into account in the preparation of Local Development Plans (LDP).

Under the provisions of the SPPS, in the preparation of Local Development Plans (LDPs) and in the determination of planning applications, planning authorities should apply the precautionary principle when considering the impacts of a proposed development on national or international significant landscape or natural heritage resources.

The SSPS notes that:

> *Sustaining and enhancing biodiversity is fundamental to furthering sustainable development. The Northern Ireland Biodiversity Strategy and EU Biodiversity Strategy seek to halt the loss of biodiversity and ecosystems services by 2020. Furthermore, the Wildlife and Natural Environment Act (Northern Ireland) 2011 places a statutory duty on every public body to further the conservation of biodiversity. However, all of us share the collective responsibility to preserve and improve the natural environment and halt the loss of biodiversity for the benefit of future generations.*

Planning Policy Statement PPS2

Planning Policy Statement, PPS 2, sets out the Northern Ireland planning policies for the conservation, protection and enhancement of our natural heritage ("*the diversity of our habitats, species, landscapes and earth science features*").

The objectives of this Planning Policy Statement being:

- to seek to further the conservation, enhancement and restoration of the abundance, quality, diversity and distinctiveness of the region"s natural heritage;
- to further sustainable development by ensuring that biological and geological diversity are conserved and enhanced as an integral part of social, economic and environmental development;
- to assist in meeting international (including European), national and local responsibilities and obligations in the protection and enhancement of the natural heritage;
- to contribute to rural renewal and urban regeneration by ensuring developments take account of the role and value of biodiversity in supporting economic diversification and contributing to a high quality environment;
- to protect and enhance biodiversity, geodiversity and the environment; and
- to take actions to reduce our carbon footprint and facilitate adaptation to climate change

PPS 2 includes specific policies for European and Ramsar Sites (NH1), Species Protected by Law (NH2), Sites of Nature Conservation Importance – National (NH3), Sites of Nature Conservation Importance – Local (NH4), Habitats, Species or Features of Natural Heritage Importance (NH5) and Areas of Outstanding Natural Beauty (NH6).

Regional Development Strategy (RDS 2035)

The RDS was published in 2021 and is a long-term plan which aims to deliver the spatial aspects of the Programme for Government. In doing so it recognises the important role of Belfast in generating regional prosperity and that Londonderry is the focus for economic growth in the Northwest. To ensure all areas benefit from economic growth, the RDS reflects the Programme for Government approach of balanced sub-regional growth and recognises the importance of key settlements as centres for growth and prosperity. It also complements the Sustainable Development Strategy and informs the spatial aspects of the strategies of all Government Departments.

The RDS has a statutory basis and is material to decisions on individual planning applications and appeals. Local councils must take account of the RDS when drawing up their Development Plans.

The Regional Development Strategy 2035 (RDS) provides regional guidance to conserve, protect and where possible enhance our natural environment. It recognises that effective care of the environment provides very real benefits in terms of improving health and well-being, promoting economic development and addressing social problems which result from a poor-quality environment.

Regionally the guidance in the RDS includes to reduce our carbon footprint and facilitate mitigation and adaptation to climate change whilst improving air quality (RG9); to conserve, protect and, where possible, enhance our natural environment (RD11); and promote a more sustainable approach to the provision of water and sewerage services and flood risk management (RG12). Spatial Framework Guidance (SPG) 9 sets out the key concepts for the protection and enhancement of the quality of the setting of Londonderry City and the Northwest and its environmental assets.

Local Planning Policy

Derry City & Strabane District Council Local Development Plan (LDP) 2032 – Draft Plan Strategy

The intention of the LDP is to when adopted guide land-use development and set out Planning policies and proposals to 2032 to determine planning applications across the District.

The LDP will comprise of two development plan documents: the overall LDP Plan Strategy and, in due course,a LDP Local Policies Plan.

The Council's Planning LDP team is currently doing the initial work tasks required for the Adoption and simultaneous commencement of implementation of the LDP Plan Strategy (valid June 2024), as well as the preparatory work on the LDP Local Policies Plan (LPP).

The overall LDP vision is:

"*To make Derry City and Strabane District a thriving, prosperous and sustainable area – Planning for balanced and appropriate high-quality development, whilst protecting our environment, and also promoting well- being with equality of opportunity for all*."

The LDP Policy Statement/Key Strategic Message for the Natural Environment being:

"*• To protect, restore, enhance and conserve the abundance, quality, diversity and distinctiveness of the District's natural heritage and its associated landscape and seascape;*

• Further sustainable development by ensuring that natural heritage and associated biodiversity is conserved and enhanced as an integral part of social, economic and environmental development;

• Apply the precautionary principle when considering the impacts of a proposed development on national or international / European protected natural heritage assets or landscapes."

This builds on current local plans a) Derry Area Plan 2011: Chapter 4 contains the relevant text for the plan and its natural environment. The plan defines 'Areas of High Scenic Value' as well as 'Areas of Local Nature Conservation and Amenity Importance' at various locations. Policies regarding landscape requirements and development adjacent to rivers and open water bodies are also contained. b) Strabane Area Plan 1986-2001: Section 19.0 contains relevant text for environmental protection and conservation. The SAP 1986-2001 states

the conservation of the natural and man-made environments has been a major consideration in the formulation of all policies and proposals

Derry City & Strabane District Council Local Development Plan (LDP) 2032 – Draft Plan Strategy, Evidence Base Paper EVB21: Natural Environment.

The Evidence Base Paper is published as a 'supporting document' to the LDP draft strategy in accordance with Regulation 15(a) of the Planning (LDP) Regulations (NI) 2015.

The paper notes that *"the District is particularly rich in natural heritage resources and contains important wildlife habitats. All of the habitats are of major importance based on individual habitat and species diversity and rarity".*

Priority Habitats for the area are noted: - Bogs: lowland raised bog, blanket bog, lowland heathland, upland heathland and montane heath - Coastal: saline lagoons, sea-grass beds, sub-tidal sands and gravels, coastal saltmarsh and inter-tidal mudflats. - Hedgerows - Rivers & Streams - Woodland: Oak woodlands, wet woodlands, mixed woodlands and non-native woodlands - Urban and garden: Urban parks, Parkland.

Priority Species for the area are noted as: - Atlantic salmon; -Bats; Bumblebee; Curlew, Lapwing & Whooper swan; Otter; Purple moor grass; Red Squirrel.

APPENDIX 2: METHODOLOGY

Desk Study

Background Records Search

i The preliminary ecological assessment includes a desk study to obtain background records relevant to the Application 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.

ii 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.

iii In January 2024 the Centre for Environmental Data and Recording (CEDaR) was contacted to obtain the following ecological data:

- Records of non-statutory designated sites within 1 km of the Site boundary.
- Records of legally protected and notable species (fauna and flora) within 1 km of the Site boundary,

iv The Northern Ireland Environment Agency (NIEA) Natural Environment Map Viewer for Northern Ireland (https://gis.daera-ni.gov.uk) website was reviewed in June 2024 for the following information:

- Designated sites of nature conservation importance (statutory sites only) within 1 km of the Site; and,
- Notable habitats within 1 km of the Site, these being areas of ancient woodland and other Northern Ireland Priority Habitats (e.g. those listed in the grassland and woodland inventory or noted as peatland, heathland etc.).

Smooth Newt Pond Search

v 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 250 m of the Application Site boundary, in order to help establish if the land within and immediately surrounding the Site could be used by smooth newts.

Field Survey

vi The preliminary ecological assessment includes a walkover survey of the Survey Area (all land within the Application Site and adjacent to), broadly following the Phase 1 habitat survey methodology as set out in Joint Nature Conservation Committee guidance (Joint Nature Conservation Committee, 2010) and with reference to the NIEA Preliminary Ecological Appraisals Specific Requirements (NIEA, 2018). This survey method records information on habitat types (habitats being assigned references based on The UK Habitat Classification System[11]) 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).

vii A condition assessment was undertaken for all habitat parcels - assigning a condition to them using the England Department for Environment Food and Rural Affairs (DEFRA) statutory biodiversity metric tool. Biodiversity metric condition sheets were created for each habitat type recorded on site to evidence good, moderate or poor condition.

[11] UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org).

viii During the walkover survey, the following protected or notable species were 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) and with reference to the NIEA Badger Survey Specific Requirements (NIEA, 2017).
- **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 and with reference to the NIEA Bat Surveys Specific Requirements (NIEA, 2024).
- **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;
- **Smooth newt**: the survey involves assessing the potential of habitats within the Survey Area to support smooth newt, with reference to the NIEA Newt Surveys Specific Requirements (NIEA 2017).
- **Reptiles**: the survey involves assessing the potential of habitats within the Survey Area to support reptiles (common lizard) with reference to the NEIA Common or Viviparous Lizard Surveys Specific Requirements (NIEA 2017).
- **Notable species of invertebrate**: the survey involves assessing the potential of habitats within the Survey Area to support notable species of invertebrates, both terrestrial and aquatic (including white-clawed crayfish);
- **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 Irish hare, pine marten and Irish stoat;
- **Non-native invasive plant species**: the survey involves recording evidence of the presence of invasive plants listed on Schedule 9 of the Wildlife (Northern Ireland) Order, 1985 (as amended) and the Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019.

Tree Bat Roost Ground Level Tree Assessment (GLTA)

ix A GLTA was undertaken of all trees within the Survey Area according to the Bat Conservation Trust Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) (Collins, 2023); this involved a detailed inspection of the exterior of the tree from the ground to look for features that bats could use for roosting – Potential Roost Features (PRF), e.g. woodpecker holes, squirrel holes, wounds, cracks, ivy cover etc. This information is used to estimate the trees potential for supporting bats using the categories outlined in Table 4 below.

Table 4: Guidelines for Assessing the Suitability of Trees on Proposed Development Sites for bats (lifted from Table 4.2 Collins, 2023).

Suitability	Description
None	Either no PRFs in the tree or highly unlikely to be.
FAR	Further Assessment required to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

Biodiversity Accounting

x The biodiversity net gains assessment involves making a comparison between the biodiversity value of habitats present within the Application Site prior to a development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the Scheme (i.e. 'post development'). The comparison is undertaken in

terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.

xi The metric assesses and generates separate outputs for area-based habitats and linear based habitats (with rivers reported separately to other habitats like hedgerows). A development cannot claim to achieve net gain until biodiversity net gains are predicted across all area-based, linear based and river based habitats.

xii The calculation for area-based and linear (non-river) habitats calculates biodiversity units as follows:

- Before Works = Distinctiveness Score x Condition Assessment x Area/Length x connectivity x strategic significance
- After Works = ((Distinctiveness Score x Condition Score x Area/ Length x connectivity x strategic significance) / Time to Target Condition) / Difficulty of Creation/Restoration

xiii The five factors are determined as set out below:

- Distinctiveness Score – High, Medium or Low, based on UK habitat classifications.
- Condition Score – Good, Fairly good, Moderate, Fairly poor or Poor, based on habitat condition assessment.
- Area/Length – hectares (ha)/ length (km) of habitat type.
- Connectivity – High, Medium and Low.
- Strategic significance – High (Within area formally identified in local strategy), Medium (Location ecologically desirable but not in local strategy) and Low (Area/compensation not in local strategy/ no local strategy).
- Time until target condition – time period (in years) until the target condition will be achieved.
- Difficulty of creation/restoration – a score applied to account for risk associated with creating/restoring different types of habitat.

Limitations

xiv 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.

xv 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.

xvi Although the ecological survey was undertaken in January 2024 whilst snow was on the ground, this is not considered a significant limitation to the PEA or findings of this EcIA. Whilst winter months are suboptimal for identification of plants, the nature of the habitats being investigated meant that identification of dominant plants was possible and snow cover did not significantly compromise species lists.