FUTURESECOLOGY

AMG Utility Solutions

Church Bank, Jarrow

ECOLOGICAL IMPACT ASSESSMENT (EcIA)

Report Reference Number: FE568/EcIA01

October 2025

Please note that the report is likely to be valid for a period of 12 months[1]. Where specific protected species surveys are undertaken the validation period of these surveys differs and must be considered carefully when utilising the data present within this report. For example, bat nocturnal emergency surveys are likely to be valid for a period of two seasons (a season being May – September) to support a planning application though to apply for a European Protected Species Licence surveys must be up to date and should be conducted in the current or most recent optimal survey season.

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[1] https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf

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1.0 EXECUTIVE SUMMARY

1.1 An Ecological Impact Assessment (EcIA) was undertaken following published guidelines on the likely effects upon biodiversity as a result of a proposed development at land off Church Bank, Jarrow. The assessment draws from a desk study and field surveys of the Site and surrounding area.

1.2 Outline development proposals comprise the installation of a Battery Energy Storage System (BESS) and associated infrastructure and access with all matters reserved.

1.3 The assessment identified the following important ecological features which could be affected by the development or warrant consideration due to the legal protection afforded by them:

- Internationally Designated Sites (Northumbria Coast SPA/Ramsar/SSSI, Durham Coast SAC/SSSI);
- Durham Coast SSSI;
- Local Wildlife Sites (River Don Salt Marsh, Straker Street, Cemetery Road, Jarrow Slake Mud Flats, River Tyne – tidal extent);
- Veteran trees;
- Habitats of Principal Importance (HPIs);
- Broadleaved woodland and individual trees ;
- Japanese knotweed Reynoutria japonica (Invasive Non-Native Species);
- Badger *Meles meles;*
- Bats – Roosting Habitat;
- Bats – Foraging / commuting habitat;
- Great crested newts (GCN) *Triturus cristatus*;
- Nesting birds;
- Water vole *Arvicola amphibius* and otter *Lutra lutra*; and
- Hedgehog *Erinaceus europaeus*.

1.4 Consultation with MAGIC Site check confirms that the Site falls within the 2-5km Impact Risk Zone (IRZ) for Northumberland Shore SSSI. The development may fall within the categories that would require consultation with Natural England due to their potential impact. As such, in order to gain an early understanding of any further survey / assessment / mitigation requirements, or to have confidence that further work is not required, it is recommended that Natural England are consulted through their Discretionary Advice Service (DAS).

1.5 Onsite habitats to be retained and buffered, where feasible, comprise the central broadleaved woodland belt and individual trees, scattered around the Site's southern boundary extent. Any losses of these habitat features should be minimised and offset using appropriate compensatory planting to achieve mandatory biodiversity net gains.

1.6 Impacts during construction to retained on-site habitats (broadleaved woodland, individual trees) and off-site habitats will be minimised through careful control of construction activities through an industry best practice and outlined within a Construction Environmental Management Plan (CEMP).

1.7 Japanese knotweed *Reynoutria japonica* is present within the woodland on-site. Biosecurity measures and a management plan will be required to ensure compliance.

1.8 No evidence of a badger sett was identified within the Site at the time of the survey. However, if woodland habitat is removed, an pre-commencement badger survey is recommended given the mobile nature of this species, to ensure continued compliance with the Protection of Badgers Act 1992.

1.9 Precautionary working methods are required for Site clearance operations to minimise risk with regards to species including nesting birds and hedgehog.

1.10 A sensitive lighting design in accordance with BCT Guidance[2] should be implemented, with particular avoidance of light spill upon retained and off-site habitats.

1.11 With the implementation of mitigation and compensation (where necessary) measures, no significant adverse residual effects are envisaged upon any Important Ecological Features as a result of the proposed development.

[2] Guidance Note GN08/23 Bats and Artificial Lighting At Night, Bat Conservation Trust (BCT) and the Institute of Lighting Professionals

2.0 INTRODUCTION

2.1 The following report has been prepared by Futures Ecology Ltd. on behalf of AMG Utility Solutions. It provides the results of a Phase 1 habitat survey and preliminary protected species survey at land off Church Bank, Jarrow (grid reference: NZ 33945 64992).

2.2 The Phase 1 habitat survey and preliminary protected species surveys were undertaken on 6th August 2025.

2.3 This document has been prepared with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) Ecological Impact Assessment (EcIA) Guidelines[3]. The key findings of the ecological assessments and the application of the mitigation hierarchy have been employed at each stage of the development design process to minimise impacts and maximise the ecological benefit of the scheme.

2.4 The key objectives of EcIA are to:

- Gain an understanding of the baseline ecology of the Site and immediate surrounding area.
- Determine whether the Site supports or has the potential to support protected species.
- Identify any likely ecological constraints and use this to inform the development design process;
- Assess the likely significant impacts of the proposals on the Important Ecological Features;
- Identify mitigation measures likely to be required;
- Identify the opportunities offered by the proposed project to deliver ecological enhancement.

2.5 This report should be read in conjunction with the Biodiversity Impact Assessment (BIA, Futures Ecology, FE568/BIA01, August 2025) which details the baseline value of the Site for Biodiversity Net Gain.

SITE LOCATION AND CONTEXT

2.6 The Site is c. 1.96ha in extent and comprises mostly hardstanding and large industrial buildings. There are some areas of ephemeral/short perennial and tall ruderal, as well as a strip of broadleaved woodland down the centre of the Site and a number of individual trees along the Site boundary.

2.7 The Site is bound by Church Bank to the west, the A185 to the south, and a large Port of Tyne carpark to the east. To the north lies the River Don set behind a narrow strip of woodland. The Site is located on the edge of a large industrial area in Jarrow, South Tyneside, c. 8km east of the centre of Newcastle upon Tyne.

[3] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

DEVELOPMENT PROPOSALS

2.8 The development proposals comprise an outline planning application for the installation of a Battery Energy Storage System (BESS) and associated infrastructure and access, with all matters reserved.

BACKGROUND

2.9 An application to demolish 14 buildings within the Site was approved in July 2025 (Application Number: 250364, South Tyneside Council, Approved July 2025). Bat surveys were undertaken in association with this application. For further information, refer to the Preliminary Roost Assessment & Breeding Bird Survey Letter (Futures Ecology, June 2025, Reference: FE568), in relation to the approved demolition consent.

2.10 During the Site visit in August, buildings B6 and B8 had already been removed with works ongoing in the north of the Site, limiting access. For the purpose of this application, it was considered that the buildings were no longer present on-site.

3.0 METHODOLOGY

PERSONNEL

3.1 The habitat survey and preliminary protected species assessment was conducted by D. Heppenstall BSc (Hons) and J. Lally MSc, BSc (Hons). D. Heppenstall has over 1 years' experience in ecological consultancy and is appropriately qualified for the surveys based on the CIEEM competencies. J. Lally has 2 years' experience of conducting and leading field surveys across a wide range of sites. J. Lally is able to conduct RCA's following certification as a Qualified Surveyor in September 2024 by the Cartographer RCA Team and RGS.

DESK STUDY

3.2 Prior to the field survey, aerial photographs and mapping tools were reviewed using online mapping resources at a minimum scale of 1:25,000; Google Maps[4]; and the Multi Agency Geographic Information for the Countryside (MAGIC)[5] to assess the landscape context of the survey area and surrounding areas.

3.3 The MAGIC website was used to obtain information about:

- Statutory designated sites of international, national and local importance;
- Impact Risk Zones (IRZs) for Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites;
- Approved European Protected Species Mitigation (EPSM) licences, and

[4] www.google.com/maps
[5] www.magic.defra.gov.uk

- Natural England Environmental DNA surveys and Habitat Suitability Assessments of Ponds for great crested newt in support of District Level mitigation Licensing.

3.4 To support the field survey and compile baseline information of relevance to the Site, ecological information was sought from third party organisations:

- Environmental Records Information Centre North East (ERICNE);
- Woodland Trust's Ancient Tree Inventory (ATI)[6];
- Ancient Woodland and Habitats of Principal Importance (MAGIC)[7];
- Land Information System (LandIS)[8]; and
- Natural England's Open Dataset[9].

3.5 Relevant data requested included records of protected or notable species and sites designated for nature conservation interest.

3.6 The search area for designated sites and protected species is determined by the likely Zone of Influence[10] and the likely significant affect. The search areas for the various levels of site designation and for protected / notable species is detailed below:

- Sites of international statutory designation such as Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Sites are searched for within a 10km radius around the application Site.
- Sites of national or regional importance with a statutory designation of Site of Special Scientific Importance (SSSI) or National Nature Reserve (NNR) within 2km.
- Sites of local importance with statutory designation of Local Nature Reserve (LNR), or non-statutory designation of Site of Importance for Nature Conservation (SINC) or the equivalent Local Wildlife Site (LWS) within 1km; and
- Records of notable / protected species (i.e., including Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and local Biodiversity Action Plan (LBAP) species within 1km and bats within 2km.
- EPSM licences relating to bats within 2km and GCN within 1km.

FIELD SURVEY – HABITATS

Extended Phase 1 Survey

3.7 The survey was undertaken on 6th August 2025, during weather conditions that were clear and dry. Survey methodology followed guidance from Joint Nature Conservation

[6] https://ati.woodlandtrust.org.uk/
[7] https://magic.defra.gov.uk/MagicMap.html
[8] Hallett, S.H., Sakrabani, R., Keay, C.A. and Hannam, J.A. (2017) Developments in Land Information Systems: Case studies in land resource management capabilities and options. Soil Use and Management. doi: 10.1111/sum.12380. http://onlinelibrary.wiley.com/doi/10.1111/sum.12380/full
[9] https://data.gov.uk/dataset/8643f1b9-b419-4ee8-8e9c-18200e0edc31/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019
[10] The Zone of Influence (ZOI) is defined by CIEEM as being the "area over which ecological features may be affected by biophysical changes as a result of a proposed project and associated activities" CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Marine.

Committee (JNCC) 2016[11] comprising a walkover of the survey area mapping (using JNCC standard habitat codes) and broadly describing and classifying the principal habitat types and other features of interest. The frequencies at which plant species occurred were noted using the DAFOR[12] method. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types. A summary of the habitats present on-site is provided within the report including UK Hab equivalent habitats (from the UK Habitats Classification methodology[13]) for the purpose of the Biodiversity Impact Assessment (BIA).

3.8 Habitats were also assessed for their potential to support protected or notable species including any incidental sightings of birds recorded during the walkover. Where potentially suitable habitats were observed during the scope of this assessment, detailed protected species surveys were undertaken using methodology detailed below.

3.9 The distribution and extent of any invasive species listed on Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (*as amended)* were also noted during the survey.

FIELD SURVEY – FAUNA

Badger *Meles meles*

3.10 A badger survey was undertaken on 6th August 2025, within the application Site and 30m beyond the boundary where possible. The survey followed standard methodology as outlined by Natural England (2015)[15] and Harris *et al* (1989)[16], Creswell *et al.* (1990)[17]. Field signs searched for include: setts, earth mounds, bedding material, mammal paths, latrines, snuffle holes, prints, hairs, scratching posts etc.. The identification of some signs on their own does not necessarily provide conclusive evidence of the presence of badgers.

Bats

Ground Level Tree Assessment (GLTA)

3.11 Individual trees and trees on the edge of the woodland were assessed for their potential to support roosting bats using statutory guidance (Natural England, 2019)[21] and best practice survey methodology (Collins, 2023[22] and Mitchell-Jones, A.J. and McLeish, A.P. (eds), 2004)[23].

3.12 The trees were inspected from the ground using close focussing binoculars, a high-powered torch, and an endoscope where appropriate. Potential Roosting Features (PRF)

[11] JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7
[12] https://bsbi.org/wp-content/uploads/dlm_uploads/Sampling_Guidance_-_Annex_1_v4_April_2011.pdf
[13] ukhab – UK Habitat Classification
[15]Natural England (2015) Badger Surveys and Mitigation accessed May 2021 https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects#survey-methods (accessed December 2019)
[16] Harris, S., Creswell, P., & Jefferies, D. (1989). *Surveying Badgers.* The Mammal Society.
[17] Cresswell, P., Harris, S., & Jeffries, D.J. (1990) The history, distribution, status, and habitat requirements of the badger in Britain. Nature Conservancy Council.
[21] Bats: surveys and mitigation for development projects: https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects (accessed 12/11/2019)
[22] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.
[23] Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual (3rd edn*). JNCC, Peterborough.

for bats such, holes / cavities, loose bark, cracks / splits, occluded bark, and gaps behind ivy stems (please note that this list is not exhaustive) were sought (Based on P16, *British Standard 8596:2015*[24]). Other factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value of the PRF. Signs indicating possible use by bats were also recorded such as bat droppings, odour, scratches, staining and audible sounds.

3.13 An assessment was made on the level of bat roosting potential offered by the trees, based on the presence of the features detailed above. Table 1 below outlines the suitability categories as per the Bat Survey Guidelines[22] which now supersedes The British Standard Document[14] which groups trees with moderate and high potential.

Table 1: Suitability of Trees for Bat Roosts – Based on Table 4.2 of Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.

Classification / Suitability	Description	Likely Further Survey Work
NONE	Either no PRFs in the tree of highly unlikely to be any	None
FAR	Further assessment required to establish if PRFs are present in the tree.	Aerial Assessment or further GLTA required by a licensed or accredited bat licensed worker.
PRF	A tree with at least one PRF present.	PRF Inspection Survey (Aerial Assessment). If this is not possible alternative access methods such as a MEWP (Mobile Elevated Work Platforms) and / or nocturnal survey work must be considered.

3.14 Upon completion of the above assessment the PRF's are assigned the following:

- PRF-I – PRF is only suitable for individual bats or very small numbers of bats due to size of lack of suitable surrounding habitats. No further survey work may be required but a precautionary working method statement may be appropriate.
- PRF-M – PRF is suitable for multiple bats and may therefore be used by a maternity colony. These will require further aerial (close) inspection and / or nocturnal surveys which comprise 3 visits between May – September, with at least two in the period May – August. Each visit should be at least 3 weeks apart.

Foraging / Commuting Habitat

3.15 The potential for the Site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard being given to the presence of continuous treelines providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

[24] British Standard (2015) BS 8596:2015 *Surveying for bats in trees and woodland – Guide*, October 2015.

Great Crested Newt (GCN) *Triturus cristatus*

Aquatic Habitat

3.16 OS mapping and online aerial imagery were analysed for the presence of on and off-site water bodies within 500m of the application Site in accordance with Natural England guidance[25].

Terrestrial Habitat

3.17 An assessment of the suitability of the terrestrial habitats within the Site to support GCN was completed within the subject Site. Suitable terrestrial habitat includes shelter habitat such as scrub and rank vegetation and habitat that could provide suitable hibernation sites such as rubble piles, tussock grassland and compost heaps.

Reptiles

3.18 An assessment of the suitability of the habitats present to support common reptile species was completed at the time of the habitat survey. This involved a review of habitats and habitat structure suitable for the shelter of reptiles such as areas of scrub and woodpiles, grassland with well developed, varied structure; and also, the appropriate juxtaposition of areas suitable for basking shelter and forage/hunting. This assessment was based on the methodology detailed in the Herpetofauna Workers Manual (Gent and Gibson, 1998)[26], and Froglife Advice Sheet 10 – Reptile Survey (Froglife 1999)[27].

Other species

3.19 Any sightings, evidence of or suitable habitats for other protected fauna, local Biodiversity Action Plan (BAP) species or otherwise notable species was recorded during the survey.

Survey Limitations

3.20 Due to ongoing works, certain areas in the north of the Site were restricted, therefore the habitats and their conditions in these areas had to be approximated at a distance and supplemented by aerial photography (Google Earth, 2024) and photographs taken on an earlier site visit on 7th June 2025.

3.21 Given dense vegetation/site access limitations, a badger survey and ground level tree assessment for potential roosting feature could not be undertaken in some areas. Immediately off-site ditch D1 was also inaccessible/could not be viewed given fences and dense vegetation. This has been taken into account within the impact assessment section.

3.22 The habitat survey was undertaken in the optimal period for the majority of on-site habitats (April – October).

[25] Natural England: *Standing Advice Sheet: Great Crested Newts* Paragraph 4: 4.1
[26] Gent, A.H., & Gibson, S.D., *eds* 1998. *Herpetofauna Workers' Manual*. Peterborough, joint Nature Conservation Committee.
[27] Froglife 1999. Froglife Advice Sheet 10: Reptile Survey. Froglife, London

3.23 Ground based assessment of the trees on-site was undertaken in August 2025, which is outside of the optimal survey season (December – March, when leaves are absent). However, it was considered that visibility was sufficient to assess the relevant features.

IMPACT ASSESSMENT

Importance

4.25 Ecological features are those that are considered to be important and potentially affected by the project. Importance may relate, for example, to the quality or extent of designated sites or habitats, to habitat/species rarity, to the extent to which they are threatened throughout their range, or to their rate of decline (CIEEM 2024)[28].

Geographical Context

4.26 The importance of an ecological feature is considered within a defined geographical context. For the purposes of the assessment this is:

- International (European)
- National (United Kingdom)
- Regional (North East England)
- County (Tyne and Wear)
- District (South Tyneside)
- Local (Jarrow)

4.27 The assessment of the importance of the ecological features and the potential likelihood of an effect of the development will identify which ecological features could be significantly affected by the proposal. Only these features will be taken forward for further assessment.

4.28 Where further surveys are required to determine whether an effect would be significant, the precautionary principle would be applied, and a significant effect assumed.

Further Assessment

Significance

4.29 In order to assess the significance of effects, Important Ecological Features that could potentially be affected by the development have been identified and described and the potential effects quantified using a range of characteristics:

- Positive / negative
- Extent
- Magnitude

[28] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

- Duration
- Frequency / timing
- Reversibility

4.30 For the purposes of this assessment, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national / local nature conservation policy) or more wide-ranging (enhancement of biodiversity)[29].

Mitigation, Compensation and Enhancement

4.31 Where significant effects have been identified, the mitigation hierarchy has been considered: avoiding significant effects where possible, applying mitigation measures to minimise unavoidable significant effects and compensating for any remaining significant effects.

4.32 The assessment will include mitigation, compensation and enhancements which are proposed.

Residual Effects

4.33 Upon completion of the above, residual significant effects will then be identified. It is then only necessary to assess and report significant residual effects (those that remain after mitigation measures have been considered).

Cumulative Effects

4.34 Consideration is given to the effects that may arise cumulatively from the development proposed in combination with other plans and projects proposed/consented but not yet built and operational.

4.0 LEGISLATION, PLANNING POLICY AND GUIDANCE

4.1 The policy and guidance framework for nature conservation is provided by various national, regional, and local planning policies as outlined below, with further details, as necessary, within relevant subsequent sections.

Legislative Framework

4.2 The following legislation and European Directives afford protection to wildlife and have been used to inform this assessment.

- The Environment Act 2021[30]

[29] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.
[30] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

- The Conservation of Habitats & Species Regulations 2017 (as amended)[31];
- The EC Habitats Directive (Directive 92/43/EEC)[32] as translated into UK law by The Conservation of Habitat and Species Regulations 2017 (as amended);
- The EC Birds Directive (Directive 79/409/EEC)[33]; as translated into UK law by The Conservation of Habitat and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended) (WCA)[34];
- Natural Environment and Rural Communities Act 2006 (NERC)[35].
- The Protection of Badgers Act 1992[36].
- The Hedgerow Regulations Act 1997[37].

National Planning Policy

4.3 The latest National Planning Policy Framework (NPPF, 2024)[38] sets out the Government's planning policies for England and how these are expected to be applied within the planning system. It provides a framework for local councils to produce local plans and determine planning applications in order to achieve more sustainable developments. In relation to ecology and biodiversity, Chapter 15: Conserving and enhancing the natural environment, is of relevance to this report.

4.4 The Government Circular, Biodiversity and geological conservation: circular 06/2005[39], defines statutory nature conservation sites and protected species as a material consideration in the planning process.

4.5 The former UK Biodiversity Action Plan (BAP) has been used to compile the statutory lists of priority species and habitats as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (also referred to as Habitats and Species of Principal Importance). These lists continue to be regarded as conservation priorities under the NPPF, although the UK Biodiversity Action Plan (BAP) has now been superseded by the UK Post-2010 Biodiversity Framework[40] and Biodiversity 2020[41].

Local Planning Policy

4.6 Planning decisions should be made in accordance with the adopted local development plan, in this case the South Tyneside Council Local Plan (2023-2040)[42], with the key local policies concerned with ecology being:

- Policy SP21: Natural Environment;

[31] HMSO. The Conservation of Habitats and Species Regulations 2017 (as amended) - No.1012
[32] EC (1992) Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (The EC Habitats Directive).
[33] EC (1979), Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive).
[34] HMSO. The Wildlife and Countryside Act 1981 (as amended).
[35] HMSO. (2006), Natural Environment and Rural Communities Act.
[36] HMSO. The Protection of Badgers Act 1992 (as amended).
[37] HMSO. The Hedgerow Regulations Act 1997
[38] Ministry of Housing, Communities & Local Government (December 2024). National Planning Policy Framework. London
[39] https://assets.publishing.service.gov.uk/media/5a78c5e7ed915d04220653ab/147570.pdf
[40] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) UK Post-2010 Biodiversity Framework. July 2012.
[41] DEFRA (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services.
[42] https://www.southtyneside.gov.uk/media/6874/Publication-Draft-Local-Plan-2023-2040/pdf/Publication_Draft_Local_Plan_2023_to_2040.pdf?m=1704711127857

- Policy 33: Biodiversity, Geodiversity and Ecological Networks;
- Policy 34: Internationally, Nationally and Locally Important Sites;
- Policy 35: Delivering Biodiversity Net Gain;
- Policy 36: Protecting Trees, Woodland and Hedgerows; and
- Policy SP22: Green Infrastructure.

Local Biodiversity Action Plan

4.7 Local BAPs are a key element for securing the requirements of the NPPF at a local level, consequently this assessment has taken due consideration of the priority habitats and species within Newcastle & North Tyneside Biodiversity Action Plan[43], as South Tyneside does not currently have a BAP. From a review of these, the following are of relevance to this scheme: brownfield land, rivers and watercourses, native woodland, scrub, shrub & hedgerow, bats, otter, urban birds, water vole, and hedgehog.

Other guidance

Birds of Conservation Concern

4.8 Leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of 245 bird species regularly found in Britain and, using standardised criteria, have assessed and assigned all bird species onto lists of conservation concern[44].

4.9 Birds are placed into one of three lists - Red, Amber or Green and although these listings offer no further legal protection, they are meant to guide conservation action for the individual species. The listings reflect an individual species' global and European conservation status as well as that within the UK and additionally measure the importance of the UK population in international terms.

5.0 RESULTS (BASELINE)

DESK STUDY

5.1 A summary of relevant information provided by third party consultees is provided below and displayed on Figure 1. The original data has not been included in this report.

Statutory Designated Sites

5.2 No designated sites with a statutory designation occur within the Site boundary.

[43] https://my.northtyneside.gov.uk/sites/default/files/web-page-related-files/Biodiversity%20action%20plan_0.pdf
[44] Stanbury *et al* (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. https://britishbirds.co.uk/sites/default/files/BB_Dec21-BoCC5-IUCN2.pdf

5.3 Two internationally designated sites occur within 10km of the Site. Northumbria Coast SAC/RAMSAR is split into multiple parcels, with the closest located 4.3km northeast. Durham Coast SAC is located 4.5km east of the Site boundary.

5.4 The internationally designated sites represent an Important Ecological Feature (IEF) of importance at **International** level and will be subject to a Stage 1 Screening Assessment[45].

5.5 No national or regionally important statutory sites occur within 2km of the Site boundary.

5.6 Consultation with MAGIC Site check confirms that the Site falls within the 2-5km Impact Risk Zone (IRZ) for Northumberland Shore SSSI. The SSSI is located 4.2km northeast of the proposed development site and to a degree overlaps the boundaries of the Northumbria Coast SPA/Ramsar/SSSI. The development may fall within the categories that would require consultation with Natural England due to their potential impact, those being:

- ***Infrastructure:*** *Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads/car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.*
- ***Wind and Solar:*** *Solar schemes with a footprint > 0.5ha, all wind turbines.*
- ***Minerals, Oil and Gas:*** *Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. Oil & gas exploration/extraction.*
- ***Rural Non-Residential:*** *Large non-residential developments outside of existing settlements/urban areas where the footprint exceeds 1ha.*
- ***Rural Residential:*** *Any residential development of 50 or more units outside existing settlements/urban areas.*
- ***Air Pollution:*** *Any industrial/agricultural development that could cause AIR POLLUTION (including: industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500 tonnes).*
- ***Combustion:*** *General combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.*
- ***Waste:*** *Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.*

5.7 Depending on the exact proposals, the development may fall within the 'Infrastructure' and / or 'Rural Non-Residential' categories, which would require consultation with Natural England. The SSSI is considered to represent an IEF at a **National** level.

5.8 No sites of local importance with a statutory designation were located within 1km of the Site boundary.

[45] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site [Accessed 26.08.2025]

Non-Statutory Designated Sites

5.9 No sites with a non-statutory designation occur within the Site.

5.10 Five sites of local importance (LWS) with non-statutory designation were present within 1km of the Site boundary. The closest is River Don Salt Marsh LWS, located 12m north of the Site boundary.

5.11 The presence of these sites within 1km of the Site represents an IEF of importance at a **County** level.

Table 2: Statutory and Non-Statutory Designated Sites

Site Name	Designation	Proximity to Site (approximate)	Description
Northumbria Coast	SPA/Ramsar/SSSI	4.3km northeast	This European site is designated for the presence of breeding Arctic tern *Sterna paradisaea* and little tern *Sterna albifrons,* as well as internationally important wintering populations of purple sandpiper *Calidris maritima* and turnstone *Arenaria interpres.*
Durham Coast	SAC/SSSI	4.5km east	This European site is designated for the presence of vegetated sea cliffs of the Atlantic and Baltic Coasts. It is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK, and contains a unique vegetation mosaic comprising paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub.
River Don Salt Marsh	LWS (South Tyneside)	12m north	This site is the only remaining saltmarsh of significance in South Tyneside, qualifying due to its mudflat and coastal saltmarsh priority habitats. It attracts a number of different bird species such as golden plover *Pluvialis apricaria,* curlew *Numenius arquata*, lapwing *Vanellus vanellus*, dunlin *Calidris alpina*, ringed plover *Charadrius hiaticula*, turnstones *Arenaria interpres*, bar tailed godwit *Limosa lapponica*, and spotted redshank *Tringa erythropus.*
Straker Street	LWS (South Tyneside)	204m southwest	This site comprises species-rich neutral grassland, broadleaved woodland, and a pond. The pond has a breeding water vole *Arvicola amphibius* population and is also

Site Name	Designation	Proximity to Site (approximate)	Description
			regularly used by kingfisher *Alcedo atthis* and grey heron *Ardea cinerea.* The grassland contains damp hollows holding rushes and orchid species such as the northern marsh orchid *Dactylorhiza purpurella.*
Cemetery Road	LWS (South Tyneside)	538m southwest	This site is an area of mixed habitat alongside the River Don. It comprises tall neutral grasslands which grade into fen communities rowards the river, and there are also saltmarsh species found to the north such as sea couch *Elymus pungens* and sea club-rush *Bolboschoenus maritimus.* There is a small pond with diverse fauna including breeding frog and water scorpion *Nepidae* spp.
Jarrow Slake Mud Flats	LWS (South Tyneside)	623m north	This site is located on the south bank of the River Tyne, downstream of the River Don. It has over 1 ha of mudflat, which provides an important resource for wildlife, in particular invertebrate communities. It attracts a range of bird species, as listed above for River Don Salt Marsh LWS.
River Tyne – tidal extent	LWS (Newcastle)	870m north	This site incorporates the entire length of the River Tyne within the Newcastle City Council extent, down to the centre of the river. Typical species it supports include kittiwakes *Rissa tridactyla*, Atlantic salmon *Salmo salar*, brown trout *Salmo trutta*, otter *Lutra lutra,* and white-clawed crayfish *Austropotamobius pallipes.*

Ancient Woodland and Trees

5.12 No Ancient Woodland occurs within the Site or within 1km of the Site boundary.

5.13 Five notable / veteran trees occur within 1km of the Site boundary[6], all with public access:

- 837m southwest (NZ 33235 64458) – Notable tree: Field maple *Acer campestre*
- 859m southwest (NZ 33210 64457) – Notable tree: Elm *Ulmus glabra*
- 860m southwest (NZ 33165 64510) – Notable tree: Swedish whitebeam *Sorbus intermedia*
- 868m southwest (NZ 33147 64558) – Veteran tree: Swedish whitebeam *Sorbus intermedia*

- 886m southwest (NZ 33143 64512) – Veteran tree: Swedish whitebeam *Sorbus intermedia*

5.14 Veteran trees within 1km would represent an IEF of importance at a **Local** level.

Habitats of Principal Importance (HPI)

5.15 No HPIs occur within the Site. Sixty-two HPI parcels occur within 1km of the Site. There are forty-three parcels of 'deciduous woodland', the closest located 41m north. There are seventeen parcels of 'mudflats', the closest located 20m north. There is one parcel of 'ponds', located 28m west, and there is one parcel of 'no main habitat but additional habitats present' located 403m southwest.

5.16 The HPIs represent an IEF of importance at a **Local to County** level.

Local Biodiversity Action Plan (LBAP)

5.17 There is no existing Biodiversity Action Plan for South Tyneside, so Newcastle & North Tyneside Biodiversity Action Plan has been considered within this report.

5.18 The BAP contains habitat action plans for:

- Buildings and Structures;
- Estuary & Coastal;
- Brownfield Land;
- Transport Corridors;
- Open Water & Wetland;
- Rivers and Watercourses;
- Managed Urban Greenspace;
- Native Woodland;
- Lowland Grassland; and
- Scrub, Shrub & Hedgerow.

5.19 It also contains species action plans for:

- Farmland birds;
- Bats;
- Amphibians;
- Dingy Skipper *Erynnis tages*;
- Otter *Lutra lutra;*
- Urban birds;
- Water vole *Arvicola amphibius;*
- Red squirrel *Sciurus vulgaris;*

- Hedgehog *Erinaceus europaeus;*
- Slow worm *Anguis fragilis;*
- Bumblebees *Bombus* spp.; and
- Brown hare *Lepus europaeus.*

Habitat Network

5.20 The Site boundary does not fall within any habitat networks; however, the Network Expansion Zone of the Combined Habitat Networks (England) falls c.2.7km south of the Site. This is defined as 'Land within relatively close proximity to the Network Enhancement Zones 1 & 2 that are more likely to be suitable for habitat creation for the particular habitat and identifying possible locations for connecting and linking up networks across a landscape'.[47]

Soil Type

5.21 The Site is located within a parcel mapped as Soilscape 18; this is described as slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils. This information was provided by LandIS[48] and broader details of the soil structure can be found below.

Table 3: Soilscape Summary

Property	Soilscape 18
Drainage	Impeded drainage
Fertility	Moderate
Landcover	Grassland and arable some woodland
Habitats	Seasonally wet pastures and woodlands
Carbon	Low

Protected / Notable Species Records

5.22 Records of protected and notable species provided by desk study consultees are provided in Table 4 below. The species records have been filtered to comprise relevant protected and / or notable species within 1km (and bats within 2km) of the survey area. The locations are shown on Figure 1.

Table 4: Summary of Relevant Protected and Notable Species Records

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary	Grid ref. accuracy of nearest record
Bat species					

[47] https://naturalengland-defra.opendata.arcgis.com/datasets/Defra::habitat-networks-combined-habitats-england/about
[48] https://www.landis.org.uk/soilscapes/

Common pipistrelle	*Pipistrellus pipistrellus*	Regs (Sch2), WCA (Sch5), LBAP	Roost: 8 Field Record: 30 Total: 38	Roost: 942m southeast Field record: 148m north	Roost: 100m Field record: 100m
Pipistrelle bat species	*Pipistrellus* spp.	Regs (Sch2), WCA (Sch5), LBAP	Roost: 1 Field Record: 2 Total: 3	Roost: 1585m southwest Field record: 595m southwest	Roost: 100m Field record: 1000m
Noctule bat	*Nyctalus noctula*	Regs (Sch2), NERC (SPI), WCA (Sch5), LBAP	Roost: 0 Field Record: 1 Total: 1	Roost: - Field record: 1986m northeast	Roost: - Field record: 100m
Myotis bat species	*Myotis* spp.	Regs (Sch2), WCA (Sch5), LBAP	Roost: 0 Field Record: 3 Total: 3	Roost: - Field record: 1931m northwest	Roost: - Field record: 1000m
Other mammal species					
Water vole	*Arvicola amphibius*	WCA (Sch5), NERC (SPI), LBAP	21	111m west	100m
Otter	*Lutra lutra*	Regs (Sch2), NERC (SPI), WCA (Sch5), LBAP	34	24m west	1m
Hedgehog	*Erinaceus europaeus*	NERC (SPI), LBAP	14	254m north	100m
Red squirrel	*Sciurus vulgaris*	WCA (Sch5), NERC (SPI), LBAP	1	965m east	1000m
Bird species					
Arctic tern	*Sterna paradisaea*	BoCC (Red)	3	702m northwest	1000m
Common gull	*Larus canus*	BoCC (Red), LBAP	9	519m northwest	1000m
Dunlin	*Calidris alpina*	BoCC (Red)	32	519m northwest	1000m
Eurasian curlew	*Numenius arquata*	BoCC (Red), LBAP	33	254m north	100m
Fieldfare	*Turdus pilaris*	BoCC (Red), LBAP	7	519m northwest	1000m
Goldeneye	*Bucephala clangula*	BoCC (Red)	3	519m northwest	1000m
Grasshopper warbler	*Locustella naevia*	BoCC (Red), LBAP	1	702m northwest	1000m
Great black-backed gull	*Larus marinus*	BoCC (Red), LBAP	2	519m northwest	1000m
Grey partridge	*Perdix perdix*	BoCC (Red), LBAP	2	519m northwest	1000m

Greenfinch	*Chloris chloris*	BoCC (Red), LBAP	5	519m northwest	1000m
Herring gull	*Larus argentatus*	BoCC (Red), LBAP	36	286m north	100m
House martin	*Delichon urbicum*	BoCC (Red), LBAP	1	965m east	1000m
Yellowhammer	*Emberiza citrinella*	BoCC (Red), LBAP	2	965m east	1000m
House sparrow	*Passer domesticus*	BoCC (Red), LBAP	11	519m northwest	1000m
Tree sparrow	*Passer montanus*	BoCC (Red), LBAP	1	965m east	1000m
Starling	*Sturnus vulgaris*	BoCC (Red), LBAP	24	519m northwest	1000m
Kittiwake	*Rissa tridactyla*	BoCC (Red)	6	830m west	1000m
Lapwing	*Vanellus vanellus*	BoCC (Red), LBAP	3	702m northwest	1000m
Lesser redpoll	*Acanthis cabaret*	BoCC (Red), LBAP	8	595m southwest	1000m
Linnet	*Linaria cannabina*	BoCC (Red), LBAP	10	519m northwest	1000m
Marsh tit	*Poecile palustris*	BoCC (Red), LBAP	1	965m east	1000m
Mistle thrush	*Turdus viscivorus*	BoCC (Red), LBAP	30	148m north	100m
Pochard	*Aythya ferina*	BoCC (Red), LBAP	1	519m northwest	1000m
Purple sandpiper	*Calidris maritima*	BoCC (Red)	10	965m east	1000m
Ringed plover	*Charadrius hiaticula*	BoCC (Red)	25	519m northwest	1000m
Scaup	*Aythya marila*	BoCC (Red)	1	519m northwest	1000m
Skylark	*Alauda arvensis*	BoCC (Red), LBAP	4	965m east	1000m
Spotted flycatcher	*Muscicapa striata*	BoCC (Red), LBAP	3	519m northwest	1000m
Whimbrel	*Numenius phaeopus*	BoCC (Red)	2	519m northwest	1000m
Willow tit	*Poecile montanus*	BoCC (Red), LBAP	1	965m east	1000m
Woodcock	*Scolopax rusticola*	BoCC (Red), LBAP	18	519m northwest	1000m

Black-tailed godwit	*Limosa limosa*	BoCC (Red)	4	519m northwest	1000m
Swift	*Apus apus*	BoCC (Red), LBAP	7	172m northwest	100m
Bar-tailed godwit	*Limosa lapponica*	BoCC (Amber)	2	519m northwest	1000m
Black-headed gull	*Chroicocephalus ridibundus*	BoCC (Amber), LBAP	54	48m north	100m
Black redstart	*Phoenicurus ochruros*	BoCC (Amber), LBAP	1	965m east	1000m
Common bullfinch	*Pyrrhula pyrrhula*	BoCC (Amber), LBAP	25	172m northwest	100m
Common redpoll	*Acanthis flammea*	BoCC (Amber), LBAP	1	595m southwest	1000m
Common sandpiper	*Actitis hypoleucos*	BoCC (Amber)	25	519m northwest	1000m
Common tern	*Sterna hirundo*	BoCC (Amber)	14	204m northeast	100m
Dunnock	*Prunella modularis*	BoCC (Amber), LBAP	11	354m north	100m
Eider	*Somateria mollissima*	BoCC (Amber)	32	519m northwest	1000m
Fulmar	*Fulmarus glacialis*	BoCC (Amber), LBAP	5	965m east	1000m
Gadwall	*Mareca strepera*	BoCC (Amber)	10	310m west	100m
Gannet	*Morus bassanus*	BoCC (Amber)	2	965m east	1000m
Green sandpiper	*Tringa ochropus*	BoCC (Amber), LBAP	2	702m northwest	1000m
Greenshank	*Tringa nebularia*	BoCC (Amber)	6	519m northwest	1000m
Greylag goose	*Anser anser*	BoCC (Amber), LBAP	1	965m east	1000m
Grey wagtail	*Motacilla cinerea*	BoCC (Amber), LBAP	25	40m west	10m
Guillemot	*Uria aalge*	BoCC (Amber)	5	702m northwest	1000m
Iceland gull	*Larus glaucoides*	BoCC (Amber), LBAP	3	519m northwest	1000m
Kestrel	*Falco tinnunculus*	BoCC (Amber), LBAP	19	56m west	100m
Knot	*Calidris canutus*	BoCC (Amber)	2	702m northwest	1000m

Lesser black-backed gull	*Larus fuscus*	BoCC (Amber), LBAP	6	63m north	100m
Little tern	*Sterna albifrons*	BoCC (Amber)	1	965m east	1000m
Mallard	*Anas platyrhynchos*	BoCC (Amber), LBAP	88	2m west	100m
Meadow pipit	*Anthus pratensis*	BoCC (Amber), LBAP	7	965m east	1000m
Mediterranean gull	*Larus melanocephalus*	BoCC (Amber), LBAP	5	519m northwest	1000m
Oystercatcher	*Haematopus ostralegus*	BoCC (Amber), LBAP	21	242m north	1m
Pink-footed goose	*Anser brachyrhynchus*	BoCC (Amber), LBAP	6	595m southwest	1000m
Razorbill	*Alca torda*	BoCC (Amber)	4	965m east	1000m
Redwing	*Turdus iliacus*	BoCC (Amber), LBAP	36	148m north	100m
Redshank	*Tringa totanus*	BoCC (Amber)	60	23m north	10m
Reed bunting	*Emberiza schoeniclus*	BoCC (Amber), LBAP	4	485m west	1m
Sanderling	*Calidris alba*	BoCC (Amber)	12	965m east	1000m
Sandwich tern	*Thalasseus sandvicensis*	BoCC (Amber)	3	965m east	1000m
Snipe	*Gallinago gallinago*	BoCC (Amber), LBAP	41	242m north	1m
Snow bunting	*Plectrophenax nivalis*	BoCC (Amber), LBAP	7	965m east	1000m
Stock dove	*Columba oenas*	BoCC (Amber), LBAP	3	702m northwest	1000m
Tawny owl	*Strix aluco*	BoCC (Amber), LBAP	1	965m east	1000m
Teal	*Anas crecca*	BoCC (Amber)	75	37m north	10m
Turnstone	*Arenaria interpres*	BoCC (Amber)	75	354m north	100m
Wigeon	*Mareca penelope*	BoCC (Amber)	9	519m northwest	1000m
Willow warbler	*Phylloscopus trochilus*	BoCC (Amber), LBAP	6	519m northwest	1000m
Song thrush	*Turdus philomelos*	BoCC (Amber), LBAP	15	156m north	100m

Shelduck	*Tadorna tadorna*	BoCC (Amber), LBAP	76	63m north	100m
Red-breasted merganser	*Mergus serrator*	BoCC (Amber)	3	702m northwest	1000m
Woodpigeon	*Columba palumbus*	BoCC (Amber), LBAP	28	63m north	100m
Moorhen	*Gallinula chloropus*	BoCC (Amber), LBAP	40	34m west	10m
Sparrowhawk	*Accipiter nisus*	BoCC (Amber), LBAP	27	145m northeast	100m
Rook	*Corvus frugilegus*	BoCC (Amber), LBAP	1	965m east	1000m
Sedge warbler	*Acrocephalus schoenobaenus*	BoCC (Amber), LBAP	1	965m east	1000m
Yellow-browed warbler	*Phylloscopus inornatus*	BoCC (Amber), LBAP	17	519m northwest	1000m
Wren	*Troglodytes troglodytes*	BoCC (Amber), LBAP	26	48m north	100m
Wheatear	*Oenanthe oenanthe*	BoCC (Amber), LBAP	7	702m northwest	1000m
Whitethroat	*Sylvia communis*	BoCC (Amber), LBAP	8	519m northwest	1000m
Peregrine	*Falco peregrinus*	LBAP	12	519m northwest	1000m
Red kite	*Milvus milvus*	WCA (Sch1), LBAP	1	519m northwest	1000m
Red-throated diver	*Gavia stellata*	WCA (Sch1)	8	702m northwest	1000m
Brambling	*Fringilla montifringilla*	WCA (Sch1), LBAP	1	519m northwest	1000m
Hobby	*Falco subbuteo*	WCA (Sch1), LBAP	1	595m southwest	1000m
Hoopoe	*Upupa epops*	WCA (Sch1), LBAP	1	965m east	1000m
Kingfisher	*Alcedo atthis*	WCA (Sch1), LBAP	18	40m west	10m
Sand martin	*Riparia riparia*	WCA (Sch1), LBAP	2	519m northwest	1000m
Swallow	*Hirundo rustica*	LBAP	17	48m north	100m
Goldcrest	*Regulus regulus*	WCA (Sch1), LBAP	20	519m northwest	1000m
Amphibian species					

Great crested newt	*Triturus cristatus*	Regs (Sch2), WCA (Sch5), NERC (SPI), LBAP	1	965m east	1000m
Smooth newt	*Lissotriton vulgaris*	WCA (Sch5), LBAP	3	32m west	10m
Common toad	*Bufo bufo*	WCA (Sch5), NERC (SPI), LBAP	6	38m west	10m
Common frog	*Rana temporaria*	WCA (Sch5), LBAP	10	87m west	100m
Other species					
European eel	*Anguilla anguilla*	NERC (SPI)	1	700m northeast	1km
Wall butterfly	*Lasiommata megera*	NERC (SPI)	5	48m north	100m
Small heath butterfly	*Coenonympha pamphilus*	NERC (SPI)	5	194m southwest	100m
Shaded broad-bar moth	*Scotopteryx chenopodiata*	NERC (SPI)	1	519m northwest	1000m
American mink	*Mustela vison*	WCA (Sch9)	1	519m northwest	1000m

Status Key: Regs - The Conservation of Habitats and Species Regulations 2017 (*as amended*). WCA - The Wildlife and Countryside Act 1981 (*as amended*). Sch 1 - Schedule 1. Sch 2 – Schedule 2. Sch5 - Schedule 5. Sch8 - Schedule 8. Sch9 - Schedule 9. NERC - England Natural Environment and Rural Communities Act (2006) Section 41. SPI - Species of Principal Importance. BoCC - Birds of Conservation Concern. LBAP – Local BAP (Newcastle & North Tyneside).

5.23 There are no records of badger *Meles meles* within 1km of the Site boundary.

5.24 A search of the MAGIC online resource revealed there were four European Protected Species Licences (EPSL) relating to bats within 2km of the Site boundary.

- c. 1.4km southwest (licence reference: EPSM2009-1352 for common pipistrelle, 17/02/2010 to 01/02/2012);
- c. 1.7km east (licence reference: EPSM2010-2058 for common pipistrelle, 09/09/2010 to 31/10/2010);
- c. 1.7km northeast (licence reference: 2020-46127-EPS-MIT for common pipistrelle, 06/05/2020 to 30/06/2025); and
- c. 1.9km north (licence reference: 2015-15991-EPS-MIT for common pipistrelle, 02/11/2015 to 31/12/2020).

5.25 There are no EPSL's relating to GCN or records of GCN surveys from Natural England's Open Dataset[9] within 1km of the Site boundary.

5.26 The Site does not fall within an area of District Level Licensing (DLL).

HABITATS

5.27 The habitats recorded within the Site boundary during the Phase 1 habitat survey included:

- Hardstanding;
- Buildings;
- Plantation broadleaved woodland;
- Tall ruderal vegetation;
- Ephemeral / short perennial vegetation;
- Mixed scrub;
- Bramble scrub; and
- Individual trees.

5.28 The location of the habitats recorded, and associated target notes are presented on Figure 2 and described below. The botanical species recorded in association with each habitat are listed in Appendix A.

Hardstanding (u1b6; Buildings)

5.29 The majority of the Site comprised hardstanding concrete surfaces (Photographs 1 and 2), with some scattered buddleia *Buddleja davidii* scrub.

5.30 Given the nature of this habitat, it is not considered to represent an IEF in the context of this assessment and will not be considered further.

Photograph 1: Hardstanding on-site (06.08.2025).

Photograph 2: Hardstanding with scattered buddleia scrub (06.08.2025).

Buildings (u1b6; Other developed land)

5.31 There were multiple large derelict industrial buildings on-site (Photographs 3 and 4). An application to demolish 14 buildings within the Site was approved in July 2025 (Application Number: 250364, South Tyneside Council, Approved July 2025). During the Site visit in August, buildings B6 and B8 had already been removed. As such, the buildings are not considered to represent an IEF in respect to the BESS proposals.

Photograph 3: Building (B4) on-site (06.08.2025).

Photograph 4: Building (B7) on-site (06.08.2025).

Broadleaved woodland – plantation (w1g; other broadleaved woodland)

5.32 A block of woodland was present in the centre of the Site (Photographs 5 and 6), with some smaller pockets in the north. Trees were of a single age class and species comprised frequent willow *Salix* sp., ash *Fraxinus excelsior,* silver birch *Betula pendula* and sycamore *Acer pseudoplatanus,* with occasional crab apple *Malus sylvestris,* rowan *Sorbus aucuparia,* hawthorn *Crataegus monogyna* and dog rose *Rosa canina.*

5.33 Ground flora comprised frequent nettle *Urtica dioica* and bramble *Rubus fruticosus* agg., and occasional common hogweed *Heracleum sphondylium* and wood avens *Geum urbanum.*

5.34 Broadleaved woodland has inherent value for wildlife and is therefore considered to represent an IEF of importance at a **Local** level.

Photograph 5: Broadleaved woodland in the centre of the Site (06.08.2025).

Photograph 6: Broadleaved woodland in the centre of the Site (06.08.2025).

Tall ruderal vegetation (g16; tall forbs)

5.35 Two areas of tall ruderal vegetation were present on-site (Photographs 7 and 8). Species comprised abundant rosebay willowherb *Chamaenerion angustifolium* and creeping thistle *Cirsium arvense*, and locally frequent buddleia *Buddleja davidii.* Species noted occasionally include hairy willowherb *Epilobium hirsutum,* creeping bent *Agrostis stolonifera,* Yorkshire fog *Holcus lanatus,* dandelion *Taraxacum officinale* agg., broadleaved willowherb *Epilobium montanum,* bramble, and dog rose.

5.36 The parcels were largely isolated within hardstanding and of limited extent and structural diversity and therefore not considered an IEF in the context of this assessment.

Photograph 7: Strip of tall ruderal vegetation near the western Site boundary (06.08.2025).

Photograph 8: Patch of tall ruderal vegetation in the north of the Site (06.08.2025).

Ephemeral / short perennial vegetation (u81; ruderal or ephemeral)

5.37 There were multiple areas of ephemeral / short perennial, particularly around the peripheries of the Site (Photographs 9 and 10). Species comprised frequent rosebay willowherb, mugwort *Artemisia vulgaris* and ash saplings. Species noted occasionally comprised creeping bent, Yorkshire fog, dandelion, wood avens, hoary ragwort *Jacobaea erucifolia*, broadleaved willowherb, buddleia, bramble, dog rose, hairy willowherb, ragwort *Jacobaea vulgaris,* ribwort plantain *Plantago lanceolata,* cherry *Prunus* sp. and cleavers *Gallium aparine.* Rarely noted were coltsfoot *Tussilago farfara* and yellow rattle *Rhinanthus minor*.

5.38 The parcels were largely isolated within hardstanding and of limited extent and structural diversity and therefore not considered an IEF in the context of this assessment.

Photograph 9: Ephemeral / short perennial vegetation in the east of the Site (06.08.2025).

Photograph 10: Strip of ephemeral / short perennial vegetation along the western Site boundary (06.08.2025).

Mixed scrub (h3h)

5.39 A small area of mixed scrub was present along the southern Site boundary (Photograph 11). Species comprised frequent rowan, sycamore, and ash, and occasional Franchet's cotoneaster *Cotoneaster franchetii*, Italian alder *Alnus cordata* and oak *Quercus* sp. This species of cotoneaster is not listed on Schedule 9 of the Wildlife and Countryside Act[34].

5.40 The area of scrub was of limited extent and lacked botanical / structural diversity and therefore would be of value at site level at most. As such, it would not be considered an IEF in the context of this assessment.

Bramble scrub (h3d)

5.41 A small strip of bramble scrub was present along the southern Site boundary (Photograph 12).

5.42 The area of bramble scrub was of limited extent and lacked botanical / structural diversity and therefore would be of value at site level at most. As such, it would not be considered an IEF in the context of this assessment.

Photograph 11: Mixed scrub along the southern Site boundary (06.08.2025).

Photograph 12: Strip of bramble scrub along the southern Site boundary (06.08.2025).

Individual trees (200)

5.43 Multiple individual broadleaved trees were recorded on-site around the Site boundary and within the scrub (Photographs 13 and 14). Species comprised frequent ash, sycamore and Italian alder, and rare wych elm *Ulmus glabra* and Swedish whitebeam *Sorbus intermedia.*

5.44 The trees were generally young and a large number were non-native. However, they have inherent value to local wildlife and offer suitable habitat for nesting birds. This habitat is therefore considered to represent an IEF of importance at a **Local** level.

Photograph 13: Broadleaved tree along the western Site boundary (06.08.2025).

Photograph 14: Broadleaved trees along the southern Site boundary within the scrub (06.08.2025).

Target Notes

5.45 Features recorded as target notes on Figure 2 include:

- TN1 – Stands of Japanese knotweed *Reynoutria japonica,* a Schedule 9 species under the Wildlife and Countryside Act[34], were found in the on-site woodland. Although this species would not be considered an IEF within the context of the assessment, it will be taken through into the impact assessment to ensure compliance with the relevant legislation, although no geographical importance will be applied.
- TN2 – Brash / rubble piles from building demolition were scattered across the Site which could act as refugia.

Photograph 15: Stands of Japanese knotweed (06.08.2025).

Photograph 16: Brash / rubble piles (06.08.2025).

FAUNA

Badger

5.46 From the desk study there are no records of badger *Meles meles* within 1km of the Site boundary.

5.47 The woodland and scrub on-site may provide potential foraging, commuting, and sett-building habitat for badger. However, no evidence of badger was noted during the survey, although some areas of the woodland could not be accessed.

5.48 Badgers are relatively common and widespread in England and whilst legally protected, the emphasis of The Protection of Badgers Act 1992 is focused on protection from persecution, rather than on conservation. Given the lack of access into areas of the Site, badgers would be considered an IEF, but as they are not of conservation concern, no scale of geographical significance would be applied.

Bats

5.49 From the desk study, four different bat species / species groups were recorded within 2km of the Site boundary, the closest of which was a field record of an unidentified pipistrelle *Pipistrellus* bat species located 595m southwest of the Site. There were four EPSL's for bats identified within 2km of the Site boundary, the closest located c. 1.4km southwest for common pipistrelle.

Roosts – Trees

5.50 No on-site individual trees were considered to offer features which could be used by roosting bats, however, some internal areas of the woodland could not be fully accessed for a full inspection due to the dense scrub layer, so some interior woodland trees may offer potential roosting features.

5.51 As such, bat roosting habitat has been considered as an IEF at a **Local** level to ensure compliance with the relevant legislation.

Foraging / Commuting Habitat

5.52 The woodland, scrub, and trees on-site may provide potential foraging and commuting resources for local bat populations. Overall, the Site habitats were valued at a Moderate level (in accordance with Table 4.1 of the BCT Survey Guidelines[19]) given the presence of woodland and good connectivity to the wider landscape. All bats are listed as priority species within the Durham Biodiversity Partnership. Noctule *Nyctalus noctula* are also listed as species of principal importance under the NERC Act 2006. Therefore, generalist bat species are considered to represent an IEF of importance at a **Local** level.

Great Crested Newts (GCN)

5.53 From the desk study there was one GCN record within 1km of the Site boundary, located 965m east. There were no EPSL's of relating to GCN or records of pond surveys from Natural England's Open Dataset[9] within 1km of the Site boundary. The Site does not fall within an area of District Level Licensing (DLL).

Terrestrial Habitat

5.54 The woodland, tall ruderal vegetation, scrub, ephemeral/short perennial vegetation and rubble piles on-site provide some suitable terrestrial habitat for GCN.

Aquatic Habitat

5.55 There is no suitable aquatic habitat on-site.

5.56 Five ponds, four ditches and one watercourse (River Don) were identified within 500m of the Site boundary (Table 5). The River Don is considered unsuitable for GCN due to its flowing nature.

Table 5: Waterbodies identified within 500m of the Site (refer to Figure 3)

Pond Ref.	Locality	Straight Line Distance / Direction. Distance via Optimal Connective Habitat in (m)	OS Grid Reference	Connectivity to Application Site
P1	Pond within Jubilee Wood park, adjacent to River Don Salt Marsh LWS	Straight line distance: 30m west Connective distance: N/A	NZ 33803 65056	Church Bank acts as a barrier to dispersal. No connectivity under the road bridge as this extends into the River Don which acts as a barrier to GCN dispersal. **No Likely Potential Constraint.**
P2	Large pond within Straker Street LWS	Straight line distance: 359m southwest Connective distance: >434m	NZ 33557 64800	Connectivity via grassland/scrub/woodland and under road bridges, however, connective distance is beyond upper limit of routine migratory distance (250m)[49]. **No Likely Potential Constraint.**
P3	Small pond within Straker Street LWS	Straight line distance: 463m southwest Connective distance: >511m	NZ 33441 64815	Connectivity via grassland/scrub/woodland and under road bridges, however, connective distance is beyond upper limit of routine migratory distance (250m)[49]. **No Likely Potential Constraint.**
P4	Small pond within Straker Street LWS	Straight line distance: 473m southwest Connective distance: >549m	NZ 33419 64835	Connectivity via grassland/scrub/woodland and under road bridges, however, connective distance is beyond upper limit of routine migratory distance (250m)[49]. **No Likely Potential Constraint.**
P5	Small pond within wooded area adjacent to D4	Straight line distance: 350m north Connective distance: N/A	NZ 33724 65434	River Don/Church Bank act as barriers to GCN dispersal. **No Likely Potential Constraint.**
D1	Drainage ditch associated with Port of Tyne car park	Straight line distance: 6m east Connective distance: 6m	NZ 34012 64979	Connectivity via scrub adjacent to Site boundary. **Possible constraint.**
D2	Drainage ditch associated with Port of Tyne car park	Straight line distance: 240m northeast Connective distance: N/A	NZ 34125 65211	River Don acts as barrier to GCN dispersal. **No Likely Potential Constraint.**
D3	Drainage ditch associated with Port of Tyne car park	Straight line distance: 364m east Connective distance: N/A	NZ 34344 65143	River Don acts as barrier to GCN dispersal. **No Likely Potential Constraint.**

[49] Franklin P.S. (1993) The migratory ecology and terrestrial habitat preferences of the great crested newt, Triturus cristatus, at Little Wittenham Nature Reserve. M.Phil. Thesis, De Montfort University, UK; Oldham, R.S. & Nicholson, M., 1986. Status and ecology of the warty newt Triturus cristatus. Report to the Nature Conservancy Council (Contract HF 3/05/123), Peterborough; Jehle, R., 2000. The terrestrial summer habitat of radio-tracked great crested newts (Triturus cristatus) and marbled newts (T. marmoratus). Herpetological Journal, 10, pp. 137-142; Kovar R, Brabec M, Vita R & Bocek R (2009) Spring migration distances of some Central European amphibian species. Amphibia-Reptilia 30 (2009): 367-378

Pond Ref.	Locality	Straight Line Distance / Direction. Distance via Optimal Connective Habitat in (m)	OS Grid Reference	Connectivity to Application Site
D4	Minor ditch within treeline/wooded area within parkland	Straight line distance: 363m north Connective distance: N/A	NZ 33721 65445	River Don/Church Bank road act as barriers to GCN dispersal. **No Likely Potential Constraint.**

5.57 Given the records of GCN 965m east, and the off-site location of ditch D1, GCN in the wider landscape would be considered important at a **Local** level.

Birds

5.58 From the desk study there were 100 different bird species recorded within 1km of the Site boundary. The closest of these was a mallard *Anas platyrhynchos* record, located 2m west of the Site boundary. Of the species recorded from the desk study, 33 are on the BOCC Red List[50], and 53 are on the Amber List.

5.59 Arctic tern *Sterna paradisaea* and little tern *Sterna albifrons* form part of the breeding species assemblage of Northumbria Coast SPA/Ramsar/SSSI, while purple sandpiper *Calidris maritima* and turnstone *Arenaria interpres* form part of the migratory assemblage. Given that these are all coastal species, it is unlikely that the Site provides a significant resource for these species, or any other SPA/Ramsar assemblage species.

5.60 Incidental records of birds during the survey included a grey wagtail *Motacilla cinerea* noted approximately 15m north of the Site, on the southern bank of the River Don.

5.61 The woodland, trees and scrub on-site offer suitable habitat for a range of urban fringe bird species.

5.62 Given the woodland and trees present on-site as well as the variety of species records, nesting birds are considered to represent an IEF of importance at **Local** level.

Other species

5.63 There were twenty-one records of water vole *Arvicola amphibius* within 1km of the Site boundary, the closest located 111m west. There were also thirty-four records of otter *Lutra lutra* within 1km of the Site boundary, the closest located 24m west. There is no suitable habitat on-site, however, ditch D1 (c. 6m east) and the River Don (c. 23m north) may offer suitable habitat for these species. As such, water vole and otter are considered to be an IEF of importance at a **Local** level.

5.64 There were fourteen records of hedgehog within 1km of the Site boundary, the closest located 254m west. The woodland and scrub on-site provide suitable foraging and shelter habitat for this species. This species is listed as an SPI (NERC Act 2006). As such, hedgehog are considered to be an IEF of importance at a **Local** level.

[50] https://www.bto.org/our-work/science/publications/reports/birds-conservation-concern

5.65 There was one record of red squirrel *Sciurus vulgaris* within 1km of the Site boundary, located 965m east. The woodland and scrub on-site provide suitable habitat for this species, however, given the distance of the record and lack of connectivity, is not considered to be an IEF in the context of this assessment and will not be considered further.

5.66 From the desk study there were six records of common toad *Bufo bufo,* the closest located 38m west, ten records of common frog *Rana temporaria,* the closest located 87m west, and three records of smooth newt *Lissotriton vulgaris,* the closest located 32m west. These are all associated with pond P1 or the adjacent area within Jubilee Wood. Given the largely hardstanding nature of the Site and lack of suitable aquatic habitat on-site, the Site is unlikely to represent a significant resource for amphibians. As such, they are not considered to represent an IEF in the context of this assessment and will not be considered further.

5.67 There were three butterfly and moth species recorded within 1km of the Site boundary, the closest was wall butterfly *Lasiommata megera* located 48m north. Caterpillar food plants for this species include tor-grass *Brachypodium pinnatum,* false brome *Bromus sylvaticum,* cock's foot *Dactylis glomerata,* bents *Agrostis* spp., wavy hair-grass *Deschampsia flexuosa* and Yorkshire fog *Holcus lanatus,* some of which are found on-site within the tall ruderal vegetation and ephemeral / short perennial. However, the Site is unlikely to represent a significant resource for these species, and therefore they are not considered to represent an IEF in the context of this assessment and will not be considered further.

Summary of Ecological Features & Further Assessment Requirements

5.68 Table 6 below provides a summary of the ecological features identified on which further assessment is required and their geographical scale of significance.

Table 6: Summary of Important Ecological Features

Ecological Feature	Geographical Context
Internationally / Nationally Designated Sites (Northumbria Coast SPA/Ramsar/SSSI, Durham Coast SAC/SSSI)	International / National
Local Wildlife Sites (River Don Salt Marsh, Straker Street, Cemetery Road, Jarrow Slake Mud Flats, River Tyne – tidal extent)	County
Veteran trees	Local
Habitats of Principal Importance (HPI)	Local to County
Broadleaved woodland and individual trees	Local
Japanese knotweed (Invasive Non-Native Species)	N/A
Badger	N/A
Bats – Roosting habitat	Local
Bats – Foraging / commuting habitat	Local
Great crested newt (GCN)	Local
Nesting birds	Local

Ecological Feature	Geographical Context
Water vole and otter	Local
Hedgehog	Local

6.0 IMPACT ASSESSMENT

PROPOSALS

6.1 Outline proposals comprise the installation of a Battery Energy Storage System (BESS) and associated infrastructure and access.

6.2 The detailed design of the scheme will be produced at Reserved Matters stage and will take account of the recommendations below. Current proposals are for the BESS infrastructure to largely use the existing hardstanding, which will not require the removal of significant areas of important ecological features, comprising broadleaved woodland and individual trees. A small area of woodland and one tree are to be removed to facilitate the development, but the majority of woodland and trees are to be retained.

INTERNATIONALLY/ NATIONALLY DESIGNATED SITES

6.3 Northumbria Coast SPA/Ramsar/SSSI is located 4.3km northeast of the Site boundary. This European site is designated for the presence of breeding Arctic tern and little tern, and internationally important wintering populations of purple sandpiper and turnstone.

6.4 Durham Coast SAC/SSSI is located 4.5km east of the Site boundary. This site is designated for its vegetated seacliffs, containing unique vegetated mosaics comprising paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub.

Potential Impacts

6.5 No likely significant effects (LSE) are anticipated due to the following:

- The development does not occur within the SPA, thus there will be no loss of habitats within the site.
- The Site is largely hardstanding but does contain a small amount of woodland and trees. It is anticipated that the woodland and trees will be retained and given the small areas it is not thought that there will be any significant loss of supporting habitats to facilitate the development.
- Given that the nature of the proposed development and that it is several kilometres away, impacts arising from increased road traffic are considered to be imperceptible from road traffic air pollution.

- The development is located over 4km from the site within an existing urban area, so there are not considered to be any impacts from the urban edge effect[51].
- The development is hydrologically connected to the site, however, no changes to existing Site drainage proposed.
- The SAC has public access, however impacts related to increased visitors will be negligible given the non-residential nature of the development.

6.6 Consultation with MAGIC Site check confirms that the Site falls within the 2-5km Impact Risk Zone (IRZ) for Northumberland Shore SSSI. The development may fall within the categories that would require local authority consultation with Natural England due to their potential impact. However, no impacts to the SSSI are anticipated, for the same reasons as detailed above for the Northumbria Coast SPA/Ramsar/SSSI and the Durham Coast SAC/SSSI.

Mitigation

6.7 None required.

Residual Effect

6.8 Neutral.

LOCAL WILDLIFE SITES (LWS)

6.9 River Don Salt Marsh LWS is located 12m north of the Site boundary. This site is the only remaining saltmarsh of significance in South Tyneside, qualifying due to its mudflat and coastal saltmarsh priority habitats.

6.10 Straker Street LWS is located 204m southwest of the Site boundary. This site comprises species-rich neutral grassland, broadleaved woodland, and a pond with a breeding water vole population.

6.11 Cemetery Road LWS is located 538m southwest of the Site boundary. This site comprises mixed habitats along the River Don, comprising tall neutral grasslands and fen communities.

6.12 Jarrow Slake Mud Flats LWS is located 623m north of the Site boundary. This site is located on the south bank of the River Tyne and comprises over 1 ha of mudflat.

6.13 River Tyne – tidal extent LWS is located 870m north of the Site boundary. This site incorporates the entire length of the River Tyne within the Newcastle City Council extent.

Potential Impacts

6.14 Due to the proximity of the River Don Salt Marsh LWS to the development Site, and other hydrologically connected LWS sites, potential impacts during the construction phase may arise from pollutant spillages or surface water runoff. This could cause an adverse effect

[51] Urban Edge Effect - fly tipping; dumping of garden waste and resultant introduction of invasive/alien plants; traffic causing air pollution and rat running along minor roads and tracks; off-road vehicles leading to track erosion; disturbance to (conservation) grazing livestock; increased incidence of wildfire; and predation from domestic pets and urban scavengers.

on water quality within the river and on terrestrial habitats surrounding it. This could result in a temporary **significant adverse** effect up to a **County** level.

6.15 Impacts to the River Don Salt Marsh LWS during the construction phase may arise from direct damage or indirect impacts from noise and dust. This could result in a temporary to permanent **significant adverse** effect at up to **County** level.

6.16 Direct lighting of the adjacent LWS habitats could also lead to crepuscular / nocturnal species avoiding these areas. This could have a **not-significant adverse** effect at **Local** level, prior to mitigation.

6.17 There will be no increase in recreational pressure on the LWS sites due to the non-residential nature of the development.

Mitigation

6.18 Measures to prevent/minimise impacts to the LWS during the construction phase will broadly comprise the following and should be outlined within a Construction Environmental Management Plan (CEMP):

- Industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase.
- A rapid response protocol is required to be in place, to prevent unexpected spillages from causing a severe pollution incident. This document should be developed with reference to relevant Pollution Prevention Guidelines and advice from the Environment Agency.
- The use of bio-oils as far as practical will be adopted throughout the construction period.
- An appropriate surface water management plan will be implemented, to avoid the release of silt laden surface water into the local watercourse network.

6.19 The implementation of a sensitive lighting design in accordance with BCT Guidance[52], with particular avoidance of light spill upon LWS habitats. This will ensure the continued functionality of the LWS habitats.

Residual Effect

6.20 With the implementation of the above mitigation, the residual effect on the LWS sites within 1km of the Site will be **Neutral**.

VETERAN TREES

6.21 Five notable / veteran trees occur within 1km of the Site boundary, the closest located c.837m southwest.

[52] Guidance Note GN08/23 Bats and Artificial Lighting At Night, Bat Conservation Trust (BCT) and the Institute of Lighting Professionals

Potential Impacts

6.22 Given the distance between the Site and the veteran trees as well as the nature of the development, no impacts are expected to arise from direct damage or indirect impacts during the construction or operational phase.

Mitigation

6.23 None required.

Residual Effect

6.24 **Neutral**.

HABITATS OF PRINCIPAL IMPORTANCE (HPI)

6.25 Several areas are mapped as HPIs within 1km of the Site, the closest being a parcel of mudflats, located 20m north.

Potential Impacts

6.26 Due to the proximity of HPIs to the development Site, potential impacts during the construction phase may arise from pollutant spillages or surface water runoff. This could cause an adverse effect on water quality within the river and on terrestrial habitats surrounding it. This could result in a temporary **significant adverse** effect up to a **County** level.

6.27 Impacts to the adjacent HPIs during the construction phase may arise from direct damage or indirect impacts from noise and dust. This could result in a permanent **significant adverse** effect at up to **County** level.

6.28 Direct lighting of the adjacent HPI habitats could also lead to crepuscular / nocturnal species avoiding these areas. This could have a **not-significant adverse** effect at **Local** level, prior to mitigation.

6.29 There will be no increase in recreational pressure on the HPI sites due to the non-residential nature of the development.

Mitigation

6.30 Measures to prevent/minimise impacts to the HPIs during the construction phase will broadly comprise the following and should be outlined within a Construction Environmental Management Plan (CEMP):

- Industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase.
- A rapid response protocol is required to be in place, to prevent unexpected spillages from causing a severe pollution incident. This document should be developed with reference to relevant Pollution Prevention Guidelines and advice from the Environment Agency.

- The use of bio-oils as far as practical will be adopted throughout the construction period.
- An appropriate surface water management plan will be implemented, to avoid the release of silt laden surface water into the local watercourse network.

6.31 The implementation of a sensitive lighting design in accordance with BCT Guidance[52], with particular avoidance of light spill upon the HPI habitats. This will ensure the continued functionality of the HPI habitats.

Residual Effect

6.32 With the implementation of the above mitigation, the residual effect on the HPIs will be **Neutral**.

BROADLEAVED WOODLAND AND INDIVIDUAL TREES

6.33 A strip of broadleaved woodland was present in the centre of the Site and multiple broadleaved trees were present along the Site boundaries.

Potential Impact

6.34 The woodland and trees will largely be retained on-site as part of the BESS scheme. The small area of woodland to be lost would not be anticipated to have a significant impact the connectivity of the Site for fauna.

6.35 Potential impacts to the retained woodland and trees include direct damage and indirect impacts from noise, dust and/or pollution during the construction phase. This could have a localised, **not-significant adverse** effect at a **Local** scale prior to mitigation.

6.36 Direct lighting of these areas could also lead to crepuscular / nocturnal species avoiding the habitats, such as foraging, roosting, or commuting bats. This could have a **not-significant adverse** effect at **Local** level, prior to mitigation.

Mitigation

6.37 Retained woodland and trees will be protected during the construction phase through the implementation of a CEMP. This will outline the industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase. The implementation of Root Protection Areas (RPAs) should be guided by an arboriculturist.

6.38 The implementation of a sensitive lighting design in accordance with BCT Guidance[52], with particular avoidance of light spill upon retained woodland and trees.

Residual Effect

6.39 With the implementation of the above mitigation, the residual effect on the retained woodland and trees will be **Neutral**.

Compensation / Enhancements

6.40 To compensate for the losses of woodland and trees, individual trees are proposed to be planted in the south of the Site to provide habitat for local wildlife and increase connectivity.

JAPANESE KNOTWEED (INVASIVE NON-NATIVE SPECIES)

6.41 Stands of Japanese knotweed were present within the on-site woodland.

Potential Impact

6.42 There is a risk of spreading Japanese knotweed, a Schedule 9 species, during the construction and operational phases of the development. This could result in a breach of legislation under the Wildlife and Countryside Act 1981 (as amended).

Mitigation

6.43 The woodland in which the stands are located will not be affected by the development proposals. However, due to the likely proximity of development operations, a precautionary approach to the management of this invasive species will be implemented. This will comprise appropriate treatment to eradicate it and careful construction and operational phase measures to ensure that this plant is not allowed to spread until it has been eradicated from site. The management of invasive non-native species within the Site will be secured through the Invasive Non-Native Plant Species (INNS) Management and Removal Strategy and the production of which is anticipated to form a condition of any planning consent. Eradication methods will be included within the document including a timetable of treatment works. Contractors on-site will be briefed during a toolbox talk on the locations of the plants, biosecurity protocols for stopping the spread and the legal implications of spreading this species.

Residual Effect

6.44 With the implementation of the above mitigation, the residual effect will be **Neutral**.

BADGER

6.45 The woodland and scrub on-site provide suitable habitat for badger.

Potential Impact

6.46 Operations on-site could result in the killing and injury of a small number of individual badgers which would be a **breach of the WCA**.

Mitigation

6.47 In order to follow best practice and given the mobile nature of this species, it is recommended that an updated badger survey is undertaken immediately prior to any works commencing on the site to ensure continued compliance with the Protection of Badgers Act 1992.

6.48 The retained woodland and trees will be protected during the construction phase through the implementation of a CEMP. This will outline the industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase.

6.1 The implementation of a sensitive lighting design in accordance with BCT Guidance[52], with particular avoidance of light spill upon retained woodland and trees.

Residual Effect

6.2 With the implementation of the above mitigation, the residual effect is considered to be **Neutral**.

BATS – ROOSTING HABITAT

6.3 The on-site woodland may contain trees which provide bat roosting potential.

Potential Impact

6.4 The woodland and trees will be largely retained on-site as part of the BESS scheme. No trees within the area currently proposed to be removed were assessed as having potential features suitable for roosting bats.

6.5 Potential impacts to the retained woodland and trees include direct damage and indirect impacts from noise, dust and/or pollution during the construction phase. This could have a localised, **not-significant adverse** effect at a **Local** scale prior to mitigation.

6.6 Direct lighting of these areas could also lead to crepuscular / nocturnal species avoiding the habitats, such as foraging, roosting, or commuting bats. This could have a **not-significant adverse** effect at **Local** level, prior to mitigation.

Mitigation

6.7 Retained woodland and trees will be protected during the construction phase through the implementation of a CEMP. This will outline the industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase. The implementation of Root Protection Areas (RPAs) should be guided by an arboriculturist.

6.8 The implementation of a sensitive lighting design in accordance with BCT Guidance[52], with particular avoidance of light spill upon retained woodland and trees.

Residual Effect

6.9 With the implementation of the above mitigation, the residual effect upon roosting bats would be **Neutral**.

Compensation / Enhancements

6.10 Bat boxes should be installed upon retained trees throughout the Site to increase habitat provision for the local bat population.

BATS – FORAGING / COMMUTING HABITAT

6.11 The on-site woodland and trees provide suitable commuting and foraging routes for a range of locally common bat species.

Potential Impact

6.12 The woodland and trees will be largely retained on-site as part of the BESS scheme. The small area of woodland to be lost would not be anticipated to have a significant impact the connectivity of the Site for bats

6.13 Potential impacts to the retained woodland and trees include direct damage and indirect impacts from noise, dust and/or pollution during the construction phase. This could have a localised, **not-significant adverse** effect at a **Local** scale prior to mitigation.

6.14 Direct lighting of these areas could also lead to crepuscular / nocturnal species avoiding the habitats, such as foraging, roosting, or commuting bats. This could have a **not-significant adverse** effect at **Local** level, prior to mitigation.

Mitigation

6.15 Retained woodland and trees will be protected during the construction phase through the implementation of a CEMP. This will outline the industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase. The implementation of Root Protection Areas (RPAs) should be guided by an arboriculturist.

6.16 The implementation of a sensitive lighting design in accordance with BCT Guidance[52], with particular avoidance of light spill upon retained woodland and trees.

Residual Effect

6.17 With the implementation of the above mitigation, the residual effect upon commuting / foraging bats will be **Neutral**.

Compensation / Enhancements

6.18 Bat boxes should be installed upon retained trees throughout the Site to increase habitat provision for the local bat population.

6.19 To compensate for the losses of woodland and trees, individual trees are proposed to be planted in the south of the Site to provide habitat for local wildlife and increase connectivity.

GREAT CRESTED NEWT

Potential Impact

6.20 The optimal GCN habitats (woodland and scrub) will be largely retained within the scheme and that BESS infrastructure will utilise the existing hardstanding areas. In the unlikely event that GCN are present in the wider area, Site works (including the removal of rubble piles) could result in the killing or injury of individuals commuting through the landscape or result in disturbance of individuals of the species which would be a breach of legislation.

6.21 Given the above, Non-Licensed Risk Avoidance measures implemented under a Precautionary Working Method Statement (PWMS), outlined in a Construction Environmental Management Plan (CEMP) could be conditioned as part of any planning consent, and then implemented to ensure no GCN are harmed as part of the proposals.

6.22 The PWMS would include:

- Toolbox talk for all Site staff / contractors provided by an ecological clerk of works (ECoW) or the Site Manager.
- Careful strimming of the isolated patches of suitable (sub-optimal) terrestrial habitat, under the supervision of an ecologist who will hand search the area for amphibians.
- Any stored materials to be raised off the ground on pallets or within bags to prevent them becoming used by terrestrial GCN.
- Trenches and other excavations should be backfilled before nightfall. If this is not possible, ramps must be left to allow commuting GCN (and other wildlife) to easily exit.
- Any excavated material should be placed directly into skips or removed from the Site immediately to avoid it becoming used as refugia by terrestrial GCN.
- Avoid burning or machine removal of any potential hibernacula (collapsed dry stone wall debris etc.) without a thorough hand search for GCN by a suitably licenced ecologist.
- If GCN are found on-site at any time, all works should cease immediately and guidance from the advising ecologist should be sought. In this event, further consideration of any requirement for derogation licensing would be required.

Residual Effect

6.23 With the implementation of the above, the effect on GCN (if present) would be **Neutral**.

NESTING BIRDS

6.24 The woodland and trees on-site provide suitable habitat for a range of urban fringe bird species.

Potential Impact

6.25 Construction operations and vegetation clearance have the potential to disturb or kill / injure nesting bird species which could result in a **breach of legislation**.

6.26 During the construction phase, potential impacts on retained habitats include direct damage and indirect impacts from noise, dust and/or pollution. This could have a temporary, **not-significant adverse** effect at a **Local** scale prior to mitigation.

6.27 In addition, direct lighting of retained / newly created habitats during construction and the operational phase could lead to species avoidance of the habitats. In the absence of mitigation this could have a **not-significant adverse** effect at a **Local** level.

Mitigation

6.28 To comply with relevant legislation, any removal of vegetation should ideally be timed to avoid the nesting season March – September. Where this is not feasible, all affected areas should be checked by an experienced ecologist for the presence of active nests immediately prior to vegetation removal/demolition operations. The check and advice provided will be valid for a maximum of 48 hours during which period the demolitions should be undertaken. If nesting birds are identified during the initial check, then a minimum of a 5m buffer/ exclusion zone will be applied around the nest site. It will be necessary to undertake follow-up site visits to check the status of the nests, (usually within two to three weeks of the initial visit). The nest should be protected and buffered from works until it is confirmed that all birds have fledged. A toolbox talk will be detailed in the CEMP.

6.29 The retained woodland and trees will be protected during the construction phase through the implementation of a CEMP. This will outline the industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase.

6.30 The implementation of a sensitive lighting design in accordance with BCT Guidance[54], with particular avoidance of light spill upon retained woodland and trees.

Residual Effect

6.31 With the implementation of the above mitigation, it is considered that the residual impact on nesting birds would be **Neutral**.

Compensation / Enhancements

6.32 A range of bird boxes should be installed upon retained trees throughout the Site to increase habitat provision for the local bat population.

WATER VOLE AND OTTER

6.33 Water vole and otter may utilise the offsite ditch D1.

Potential Impact

6.34 The ditch is located 6m east of the Site boundary, therefore no works will occur within 5m of the ditch. This will avoid direct impacts to these species, should they be present.

6.35 During the construction phase, potential impacts on the ditch and associated riparian habitats include direct damage and indirect impacts from noise, dust and/or pollution. This could have a temporary, **not-significant adverse** effect at a **Local** scale prior to mitigation.

6.36 In addition, direct lighting of the ditch and associated riparian zone could lead to species avoidance of the habitats. In the absence of mitigation this could have a **not-significant adverse** effect at a **Local** level.

Mitigation

6.37 The ditch and associated riparian habitats will be protected during the construction phase through the implementation of a CEMP. This will outline the industry best practice guidelines to prevent direct damage and reduce dust, noise and pollution during the construction phase (see sections above).

6.38 Toolbox talks to all contractors on-site in relation to water vole and otter (to be detailed in CEMP).

6.39 The implementation of a sensitive lighting design in accordance with BCT Guidance[54], with particular avoidance of light spill upon the ditch and associated riparian habitats.

Residual Effect

6.40 With the implementation of the above mitigation, the residual effect on water vole and otter (should they be present) will be **Neutral**.

HEDGEHOG

6.41 The woodland and scrub habitats on-site provide suitable habitat for hedgehog.

Potential Impact

6.42 The woodland, trees and scrub are to be largely retained within the scheme. If any long vegetation/brash piles are to be removed this has a risk of causing injury or death to this species, should any individuals be present. In the absence of mitigation this would result in a **not-significant adverse** effect at a **Local** level.

Mitigation

6.43 In order to minimise risk, it is recommended that vegetation removal is undertaken in a precautionary manner. This should comprise a visual check of long vegetation areas prior to removal followed by the cutting of woody vegetation to 150mm above ground level in the first instance with all cut vegetation removed by hand from the working area. The cleared vegetation should then be left for 24 hours prior to clearing vegetation to ground

level and grubbing out of roots to allow hedgehogs or other fauna to disperse from the working area. A toolbox talk will be detailed in the CEMP.

Residual Effect

6.44 With the implementation of the above mitigation, the residual effect is considered to be **Neutral**.

7.0 RESIDUAL EFFECTS

7.1 The mitigation measures are provided within Table 7 above. With the implementation of these, **no significant adverse** residual effects are envisaged.

Table 7: Summary of Mitigation Measures and Significance of Residual Effect

Important Ecological Feature	Mitigation Measures	Means to Secure Mitigation	Significance of Residual Effects after Mitigation	Compensation / Enhancement	Means to Secure Compensation / Enhancement
Internationally/Nationally Designated Sites (Northumbria Coast SPA/Ramsar/SSSI, Durham Coast SAC/SSSI)	None required	N/A	Neutral	N/A	N/A
Local Wildlife Sites (River Don Salt Marsh, Straker Street, Cemetery Road, Jarrow Slake Mud Flats, River Tyne – tidal extent)	Implementing good practice construction methods through CEMP Avoid lighting adjacent LWS habitats	Condition	Neutral	N/A	N/A
Veteran trees (Local)	None required	N/A	Neutral	N/A	N/A
Habitats of Principal Importance (HPIs) (Local)	Implementing good practice construction methods through CEMP Avoid lighting adjacent HPI habitats.	Condition	Neutral	N/A	N/A
Broadleaved woodland and individual trees (Local)	Implementing good practice construction methods through CEMP	Condition	Neutral	New native tree planting	N/A

Important Ecological Feature	Mitigation Measures	Means to Secure Mitigation	Significance of Residual Effects after Mitigation	Compensation / Enhancement	Means to Secure Compensation / Enhancement
	Avoid lighting retained habitats within the WHN				
Japanese knotweed (Invasive Non-native Species) (N/A)	Implementing Invasive Non-Native Plant Species (INNS) Management and Removal Strategy	Condition	Neutral	N/A	N/A
	Toolbox Talks and biosecurity measures				
Badger (N/A)	Updated badger survey	Condition	Neutral	N/A	N/A
	Implementing good practice construction methods through CEMP				
Bats – Roosting habitat (Local)	Implementing good practice construction methods through CEMP	Condition	Neutral	Bat boxes on retained trees	Condition
	Avoid lighting retained/off-site habitats				
Bats – foraging / commuting habitat (Local)	Implementing good practice construction methods through CEMP	Condition	Neutral	Bat boxes on retained trees New native tree planting	Condition
	Avoid lighting retained/off-site habitats				
Great crested newt (Local)	Implementing precautionary working methods.	Condition	Neutral	N/A	N/A
Birds (Local)	Avoid nesting bird season (March – September) or an ecologist to carry	Condition	Neutral	Bird box provision	Condition

Important Ecological Feature	Mitigation Measures	Means to Secure Mitigation	Significance of Residual Effects after Mitigation	Compensation / Enhancement	Means to Secure Compensation / Enhancement
	out nesting bird checks				
Water vole and otter (Local)	Implementing good practice construction methods through CEMP	Condition	Neutral	N/A	N/A
	Avoid lighting the River Calder and associated habitats.				
Hedgehog (Local)	Implementing precautionary working methods.	Condition	Neutral	N/A	N/A

8.0 CUMULATIVE EFFECTS

8.1 South Tyneside Council's website was reviewed for planning permissions / developments that may have a cumulative effect when considered with this proposal. The review found the following applications:

- A small number of nearby homeowner applications; and
- One application for the installation of two illuminated advertisement monoliths (planning reference: 250397) c. 30m south.

8.2 Given the scale and nature of these applications, no significant cumulative effects are anticipated.

9.0 MONITORING

9.1 Monitoring will be undertaken in relation to other features discussed in additional documents in relation to this scheme. A pre-commencement walkover will be undertaken as well as ongoing monitoring to ensure that effective mitigation is maintained during construction and operation. Some stages of the Site clearance will require supervision by a suitably experienced/qualified ecologist, such as vegetation clearance to avoid killing and injury to hedgehogs and nesting bird checks (if clearance is undertaken during bird breeding season). A post construction Site visit should be undertaken to ensure all compensation and enhancement measures are installed appropriately.

10.0 BIODIVERSITY ENHANCEMENTS

10.1 In accordance with NPPF (2024[58]), The Environment Act 2021[59], and Policy SP21: Natural Environment of the South Tyneside Local Plan[42], the development should incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the Site.

10.2 The Impact Assessment section identified ecological enhancements that should be incorporated into the development proposal. Outlined below are further additional measures for consideration:

- New landscape planting including trees and shrubs to use native species which bear fruit and nectar.
- Installation of a variety of bird and bat boxes upon retained trees.
- Installation of invertebrate boxes e.g., bee houses.
- Any formal lawn areas should where possible be seeded with a species rich flowering lawn mix such as EL1 – Flowering Lawn Mix, Emorsgate Seeds.
- Any less formal grassland areas should be seeded with a species-rich meadow mix such as EM2 – Standard General-Purpose Meadow Mix, Emorsgate Seeds.

[58] https://www.gov.uk/government/publications/national-planning-policy-framework--2
[59] https://www.legislation.gov.uk/ukpga/2021/30/contents

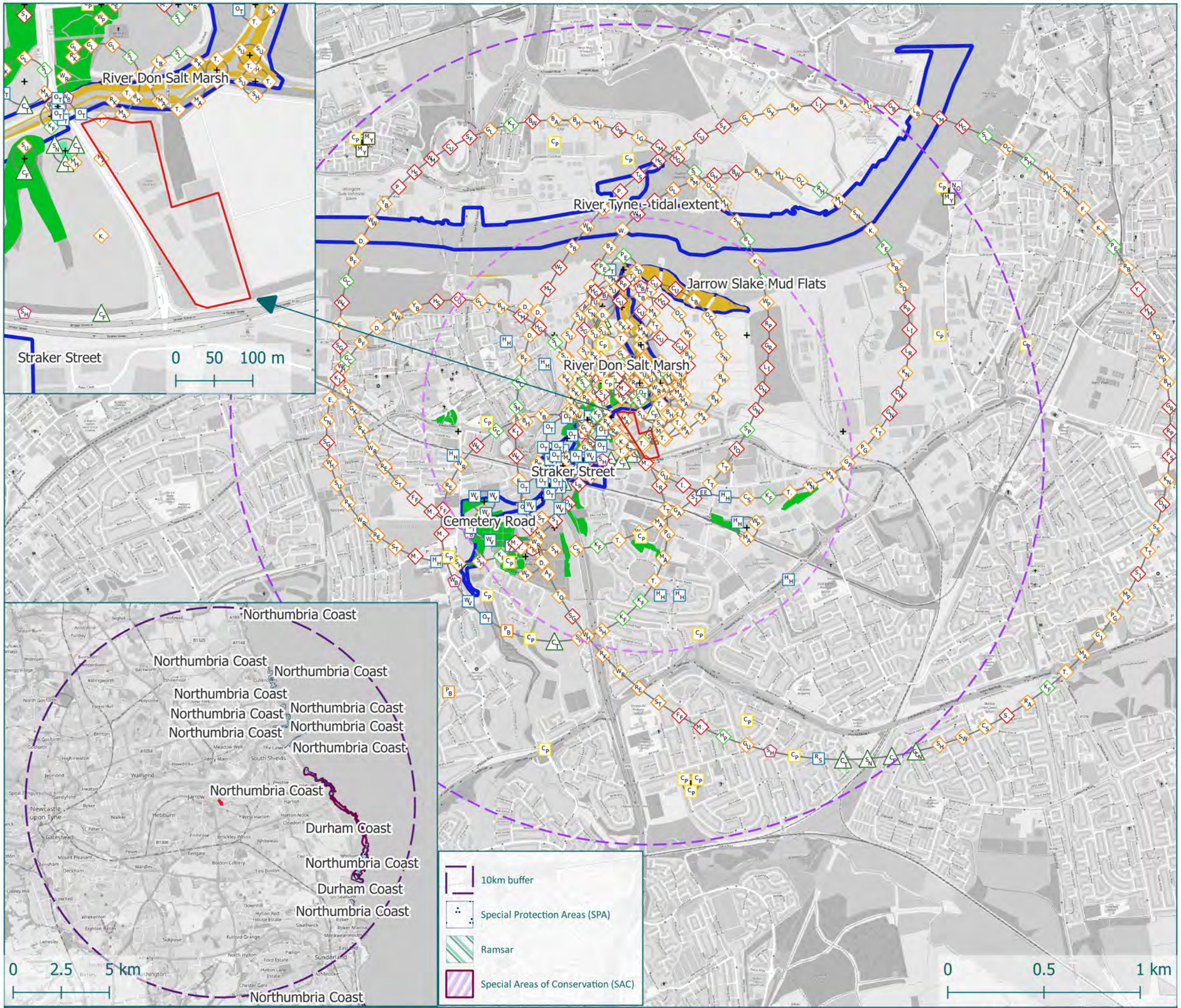
APPENDIX A: BOTANICAL SPECIES LIST

The habitat types were mapped within the Site and a representative species list for each habitat type recorded. Species lists are not exhaustive of all flora present in each habitat type.

Common Name	Scientific Name	DAFOR
Broadleaved woodland		
Ash	*Fraxinus excelsior*	F
Bramble	*Rubus fruticosus* agg.	F
Common hogweed	*Heracleum sphondylium*	O
Crab apple	*Malus sylvestris*	O
Dog rose	*Rosa canina*	O
Hawthorn	*Crataegus monogyna*	O
Nettle	*Urtica dioica*	F
Rowan	*Sorbus aucuparia*	O
Silver birch	*Betula pendula*	F
Willow	*Salix* sp.	F
Wood avens	*Geum urbanum*	O
Tall ruderal		
Buddleia	*Buddleja davidii*	LF
Bramble	*Rubus fruticosus* agg.	O
Broadleaved willowherb	*Epilobium montanum*	O
Creeping bent	*Agrostis stolonifera*	O
Creeping thistle	*Cirsium arvense*	A
Dandelion	*Taraxacum officinale* agg.	O
Dog rose	*Rosa canina*	O
Hairy willowherb	*Epilobium hirsutum*	O
Rosebay willowherb	*Chamaenerion angustifolium*	A
Ephemeral / short perennial		
Ash	*Fraxinus excelsior*	F
Bramble	*Rubus fruticosus* agg.	O
Broadleaved willowherb	*Epilobium montanum*	O
Buddleia	*Buddleja davidii*	O
Cherry	*Prunus avium*	O
Cleavers	*Gallium aparine*	O
Coltsfoot	*Tussilago farfara*	R
Creeping bent	*Agrostis stolonifera*	O
Dandelion	*Taraxacum officinale* agg.	O
Dog rose	*Rosa canina*	O
Hairy willowherb	*Epilobium hirsutum*	O
Hoary ragwort	*Jacobaea erucifolia*	O
Mugwort	*Artemisia vulgaris*	F
Ragwort	*Jacobaea vulgaris*	O
Ribwort plantain	*Plantago lanceolata*	O
Rosebay willowherb	*Chamaenerion angustifolium*	F
Wood avens	*Geum urbanum*	O
Yellow rattle	*Rhinanthus minor*	R
Yorkshire fog	*Holcus lanatus*	O
Scrub		
Ash	*Fraxinus excelsior*	F

Bramble	*Rubus fruticosus* agg.	F – D
Franchet's cotoneaster	*Cotoneaster franchetii*	O
Italian alder	*Alnus cordata*	O
Oak	*Quercus* sp.	O
Rowan	*Sorbus aucuparia*	F
Sycamore	*Acer pseudoplatanus*	F
Individual trees		
Ash	*Fraxinus excelsior*	F
Italian alder	*Alnus cordata*	F
Swedish whitebeam	*Sorbus intermedia*	R
Sycamore	*Acer pseudoplatanus*	F
Wych elm	Ulmus glabra	R

DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally



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Key

- Site Boundary
- 1km buffer
- 2km buffer
- Local Wildlife Sites

Habitats of Principal Importance (HPIs) within 1km

- Deciduous woodland
- Mudflats
- No main habitat but additional habitats present

Please find the Protected and Notable Species Key on the following page.

Client:	AMG Utility Solutions	Plan Reference:	FE568_01	Author:	JL
Project:	Church Bank, Jarrow	Project Reference:	FE568	Date:	3/9/2025
Title:	Figure 1 - Site Location & Desk Study Results Plan	Report Reference:	EcIA01	Scale:	1:20,000

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Protected and Notable Species Key

- Common pipistrelle bat
- Pipistrelle bat species
- Noctule bat
- Myotis bat species
- European water vole
- European otter
- West European hedgehog
- Red squirrel
- Arctic tern
- Common gull
- Dunlin
- Eurasian curlew
- Fieldfare
- Goldeneye
- Grasshopper warbler
- Great black-backed gull
- Grey partridge
- Greenfinch
- Herring gull
- House martin
- Yellowhammer
- House sparrow
- Tree sparrow
- Starling
- Kittiwake
- Lapwing
- Lesser redpoll
- Linnet
- Marsh tit
- Mistle thrush
- Pochard
- Purple sandpiper
- Ringed plover
- Scaup
- Skylark
- Spotted flycatcher
- Whimbrel
- Willow tit
- Woodcock
- Black-tailed godwit
- Swift
- Bar-tailed godwit
- Black-headed gull
- Black redstart
- Common bullfinch
- Common redpoll
- Common sandpiper
- Common tern
- Dunnock
- Eider
- Fulmar
- Gadwall
- Gannet
- Green sandpiper
- Greenshank
- Greylag goose
- Grey wagtail
- Guillemot
- Iceland gull
- Kestrel
- Knot
- Lesser black-backed gull
- Little tern
- Mallard
- Meadow pipit
- Mediterranean gull
- Oystercatcher
- Pink-footed goose
- Razorbill
- Redwing
- Redshank
- Reed bunting
- Sanderling
- Sandwich tern
- Snipe
- Snow bunting
- Stock dove
- Tawny owl
- Teal
- Turnstone
- Wigeon
- Willow warbler
- Song thrush
- Shelduck
- Red-breasted merganser
- Woodpigeon
- Moorhen
- Sparrowhawk
- Rook
- Sedge warbler
- Yellow-browed warbler
- Wren
- Wheatear
- Whitethroat
- Peregrine
- Red kite
- Red-throated diver
- Brambling
- Hobby
- Hoopoe
- Kingfisher
- Sand martin
- Swallow
- Goldcrest
- Great crested newt
- Smooth newt
- Common toad
- Common frog
- European eel
- Wall butterfly
- Small heath butterfly
- Shaded broad-bar moth
- American mink

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Key

- Site Boundary

Habitats

- Buildings
- Hardstanding
- Cultivated/disturbed land - ephemeral/short perennial
- Other tall herb and fern - ruderal
- Scrub - dense/continuous (mixed scrub)
- Scrub - dense/continuous (bramble scrub)
- Broadleaved woodland - plantation
- Broadleaved tree
- Target note
  - TN1 - Stands of Japanese knotweed
  - TN2 - Brash / rubble piles

Client:	AMG Utility Solutions	Plan Reference:	FE568_02	Author:	DH
Project:	Church Bank, Jarrow	Project Reference:	FE568	Date:	29/10/2025
Title:	Figure 2 - Phase 1 Habitat Plan	Report Reference:	EclA01	Scale:	1:1,000

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Key

- Site Boundary
- 250m buffer
- 500m buffer
- Waterbody
- Ditch
- Watercourse

Client:	AMG Utility Solutions	Plan Reference:	FE568_03	Author:	DH
Project:	Church Bank, Jarrow	Project Reference:	FE568	Date:	29/10/2025
Title:	Figure 3 - Waterbody Plan	Report Reference:	EcIA01	Scale:	1:5,000

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