



FUTURESECOLOGY

AMG Utility Solutions

Church Bank, Jarrow

BIODIVERSITY IMPACT ASSESSMENT (BIA)

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Johnson Mowat. This summary report presents the results of the Biodiversity Impact Assessment (BIA) calculations using the Statutory Biodiversity Metric (SBM) Calculation Tool produced in respect of proposals for the development of land at Church Bank, Jarrow (grid reference: NZ338650).

SITE LOCATION AND CONTEXT

- 1.2 The site was c. 2.04ha in extent and located in Jarrow, South Tyneside, c. 8km east of the centre of Newcastle upon Tyne.
- 1.3 The site was comprised of multiple large buildings, large areas of hardstanding, a larger stretch of broadleaved woodland as well as some smaller pockets, areas of ruderal/ephemeral vegetation, areas of tall forbs, a small area of mixed scrub and bramble scrub, and individual trees.
- 1.4 To the north and east of the site lies the River Don and a public park, containing areas of woodland and grassland. To the east lies a large car park, servicing the port, and to the south lies industrial infrastructure. The wider landscape consisted of large areas of urbanisation, including residential and industrial estates, with some pockets of green space interspersed within. The River Tyne is located c. 600 m north of the site.

DEVELOPMENT PROPOSALS

- 1.5 The site proposals are for the installation of a Battery Energy Storage System (BESS) and associated infrastructure and access, all matters reserved.

2.0 **METHODOLOGY**

FIELD SURVEY – HABITATS

Personnel

- 2.1 The initial extended Phase 1 Survey and protected species survey assessment was conducted by D. Heppenstall BSc (Hons) and J. Lally MSc, BSc (Hons). The River Condition Assessment (RCA) was conducted by J. Lally.
- 2.2 D. Heppenstall has over 1 years' experience of conducting and leading field surveys for protected species across a wide range of sites. J. Lally has 2 years' experience of conducting and leading field surveys across a wide range of sites. J. Lally is able to conduct River Condition Assessments (RCA) following certification as a Qualified Surveyor in September 2024 by the Cartographer RCA Team and RGS.
- 2.3 Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016¹ comprising a walkover of the survey area mapping (using JNCC standard habitat codes) and broadly describing and classifying the principal habitat types and identifying the dominant plant species present within each habitat type, noting any features of interest. The frequencies at which plant species occurred were noted using the DAFOR² method³. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.
- 2.4 The Statutory Biodiversity Metric works best where habitat types are classified using the UK Habitats Classification methodology (UKHab Ltd., 2023)⁴. Therefore, habitats were also described and evaluated in accordance with the UK Habitats Classification methods aligning the assessed habitats with the Biodiversity Metric habitat types.
- 2.5 The surveys used were sufficient to determine the Statutory Biodiversity Metric habitat types present onsite and to fully inform the Biodiversity Impact Assessment (BIA) using the Statutory Biodiversity Metric (SBM). This information was used to adequately map the onsite habitats to inform the BIA.
- 2.6 A summary of the habitats present onsite is provided within the report including the UK Hab equivalent habitats for the purpose of the Biodiversity Impact Assessment (BIA).

Habitat Condition Assessment

- 2.7 Habitat condition was assessed and assigned during the Phase 1 assessment following the guidance from the 'The Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology' excel document (Natural England, February 2024) which accompanies the Statutory Biodiversity Metric. Assessment criteria were followed for each broad habitat type, to determine the condition of each habitat.

¹ JNCC (2016) *Handbook for Phase1 Habitat Survey – a technique for environmental audit*. ISBN 0 86139 636 7

² DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally

³ WJ Sutherland (August 2006) *Ecological Census Techniques. A Handbook*, 2nd Edition. ISBN: 9780521606363

⁴ UKHab Ltd. (July 2023) UK Habitat Classification Version 2.0 <https://ukhab.org/>

Soil Type

- 2.8 Soil type was determined from Land Information System (LandIS)⁵.

Strategic Significance

- 2.9 Strategic significance is the local significance of the habitat based on its location and habitat type.
- 2.10 The Statutory Biodiversity Metric assigns strategic significance based on the Local Nature Recovery Strategy (LNRS) and descriptions set out in table 7 of the Statutory Metric User Guide (July 2024)⁶.
- 2.11 In the absence of an LNRS, the relevant planning authority should specify alternative documents for assigning strategic significance whilst an LNRS is put in place. The strategic significance is then based on the alternative documents and the descriptions set out in table 8 of the Statutory Metric User Guide (July 2024)⁷. If no alternative documents are specified by the relevant planning authority medium strategic significance can be assigned when the criteria in table 8 are met.
- 2.12 Gateshead Council has been appointed by DEFRA to be the Responsible Authority⁸ to lead on the development of the LNRS for South of Tyne and Wear. However, Gateshead Council has not produced a LNRS. Gateshead Council has not specified any alternative documents. Despite this, the Local Planning Authority (LPA), in this case South Tyneside Council (STC), has produced strategic significance guidance as part of their local plan⁹.
- 2.13 The guidance specified by STC sets out the following for assigning strategic significance:

Where ecologically appropriate Biodiversity Net Gain is demonstrated not to be deliverable onsite, the applicant shall prioritise the delivery of Biodiversity Net Gain off-site in accordance with the following locational hierarchy:

- *Within the strategic nature recovery network within South Tyneside.*
- *Within South Tyneside, outside of the strategic nature recovery network.*
- *Within the wider South of Tyne and Wear Local Nature Recovery Strategy Area.*
- *Within Gateshead or Sunderland, outside the strategic nature recovery network*
- *Within a neighbouring Local Nature Recovery Strategy area, preferentially within the strategic nature recovery network.*
- *Within a neighbouring National Character Area*

The strategic network as referred to in Policy 35 is considered to be the Wildlife Corridor Network as identified in Inset Map 29, or the Local Nature Recovery Strategy within South

⁵ <https://www.landis.org.uk/soilscapes/>

⁶ DEFRA (February 2024) The Statutory Biodiversity Metric. User Guide.

⁷ DEFRA (February 2024) The Statutory Biodiversity Metric. User Guide.

⁸ <https://www.gov.uk/government/publications/local-nature-recovery-strategies-areas-and-responsible-authorities#full-publication-update-history>

⁹ [South Tyneside Council | Local Plan 2023 - 2040](#)

Tyneside once confirmed. The delivery of Biodiversity Net Gain within this area will receive a higher biodiversity value in the biodiversity metric than they would in other locations as they are considered to be in a more strategic location for nature recovery. It is considered that where desirable, BNG enhancements should seek to enhance and support green and blue infrastructure networks within South Tyneside.

BIODIVERSITY IMPACT ASSESSMENT (BIA)

- 2.14 To quantify deliverable net gain for the site, the baseline value of the habitats within the site have been calculated utilising the Statutory Biodiversity Metric.

Survey Limitations

- 2.15 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.
- 2.16 All surveys were carried out during the optimal period for surveys (April – September).

3.0 **BASELINE ECOLOGY**

- 3.1 The baseline habitats are shown on Figure 1.
- 3.2 A summary of the habitats present is provided in Table 1 below. This includes the Biodiversity Metric Habitat Type and the equivalent Phase 1 habitats, as well as a brief description of the habitats and the condition assessments for the purpose of the BIA.
- 3.3 The habitat condition assessment sheets are provided in Appendix B.

Table 1: Summary of Habitats

Phase 1 Habitat	Biodiversity Metric Habitat Type	Brief Description and Habitat Condition Assessment (HCA)
Area Habitats		
Buildings	Developed land; sealed surface; u1b	Multiple buildings dotted around site. Condition assessment: N/A
Hardstanding	Developed land; sealed surface; u1b	Large areas of hardstanding around the site. Condition assessment: N/A
Broadleaved Woodland - Plantation	Other woodland; broadleaved; w1g	Areas of broadleaved woodland, with a larger parcel in the south and small pockets in the north of the site. Condition assessment: Poor (25/39)
Cultivated/disturbed land – Ephemeral/Short perennial	Ruderal/ephemeral; u81	Tracts of ruderal/ephemeral vegetation near the eastern and western boundary of the site. Passes: A, B, C; Fails: None Condition assessment: Good
Other tall herb and fern - ruderal	Tall forbs; g16	Areas of tall forbs towards the west of the site. Passes: A, B; Fails: C Condition assessment: Moderate
Scrub – dense/continuous	Mixed scrub; h3h	Small area of mixed scrub on the southern boundary of the site. Passes: A; Fails: B, C, D, E Condition assessment: Poor
Scrub – dense/continuous	Bramble scrub; h3d	Small area of mixed scrub on the southern boundary of the site. Condition assessment: N/A
Broadleaved tree	Urban tree; 200	Two small non-native trees (Italian alder and Swedish whitebeam). Passes: B, D, F; Fails: A, C, E Condition assessment: Moderate
		Two medium non-native trees (Italian alder). Passes: B, D, F; Fails: A, C, E Condition assessment: Moderate
		Five small native trees. Passes: A, B, D, F; Fails: C, E Condition assessment: Moderate
		3 medium native trees. Passes: A, B, D, F; Fails: C, E Condition assessment: Moderate

Soil Type

- 3.4 The site is located entirely within a parcel described as Soilscape 18; this can be described as *slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils*. Broader details of this soil structure can be found below:

- Drainage: Impeded drainage
- Fertility: Moderate
- Landcover: Grassland and arable some woodland
- Habitats: Seasonally wet pastures and woodlands
- Carbon: Low

Strategic Significance

- 3.5 Strategic significance has been applied to the baseline habitats as described in the methodology.
- 3.6 Table 2 provides a summary of the strategic significance applied to the baseline habitats.

Table 2: Summary of Strategic significance of baseline habitats

Strategic Significance	Applicable habitats	Justification for Statutory Significance applied
High	Other Woodland; Broadleaved (larger parcel)	Falls within the South Tyneside strategic nature recovery network.
Low	All other habitats.	Outside the South Tyneside strategic nature recovery network.

Baseline Summary

- 3.7 From the completed Statutory Biodiversity Metric, the value of the existing onsite habitats is **3.63 Habitat Units** (see Appendix A).

4.0 **IODIVERSITY IMPACT ASSESSMENT**

4.1 In accordance with the NPPF (December 2024)¹⁰ and Policy SP21: Natural Environment of the South Tyneside Council Local Plan¹¹ the aim is to generate a measurable net gain for biodiversity.

4.2

4.3 The Environment Act 2021¹² became mandatory on 12th February 2024 and requires a minimum 10% net gain in biodiversity units.

Biodiversity Net Gain Assessment

4.4 From the completed Statutory Biodiversity Metric, the value of the existing onsite habitats is **3.63 Habitat Units** (see Appendix A).

4.5 In order to achieve a 10% net gain the Application site must achieve **3.99 (+0.36) habitat units**.

4.6 If lost, all low distinctiveness habitats should be replaced with habitats of the same or higher distinctiveness in order to satisfy the metric trading rules. In addition, if medium distinctiveness habitats are lost, they should be replaced with the same broad habitat or higher distinctiveness habitat, in order to satisfy the metric trading rules.

Baseline Habitats

4.7 The majority of existing habitats within the site are of low nature conservation value (buildings, hardstanding, ruderal/ephemeral, tall forbs). These habitats were of low or very low distinctiveness within the metric. However, a number of habitats (individual trees, other woodland; broadleaved, mixed scrub, bramble scrub) are of a higher nature conservation value and are of medium distinctiveness in the metric.

Retained Habitats

4.8 The proposals will seek to retain the existing boundary trees and woodland wherever feasible to follow the mitigation hierarchy. As the application is in outline, the scale and footprint of the BESS is yet to be determined and therefore any impact on trees and landscape is unknown.

Created Habitats

4.9 Prior to completed landscaping plans, current proposals comprise a BESS and associated infrastructure [Urban: developed land; sealed surface].

Mechanisms of BNG delivery

¹⁰ Ministry of Housing, Communities & Local Government (December 2024). National Planning Policy Framework. London

¹¹ https://www.southtyneside.gov.uk/media/6874/Publication-Draft-Local-Plan-2023-2040/pdf/Publication_Draft_Local_Plan_2023_to_2040.pdf?m=1704711127857

¹² <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

4.10 There are three mechanisms in which developers can secure a net gain, and a combination of all three mechanisms can be used. The three mechanisms for net gain delivery are:

- a) Enhancing and restoring biodiversity onsite (within the redline boundary (RLB)).
 - consideration of the feasibility of onsite BNG provision, this could include making provision within the site layout to provide and secure areas for BNG provision.
- b) Delivery through enhancing and restoring biodiversity offsite. Developers can either:
 - make offsite biodiversity gains on their own land outside the RLB of the development site; or
 - buy offsite biodiversity units on the market. This can be from a range of sources including:
 - directly from a landowner.
 - from a habitat bank operator.
 - through a broker.
 - from a trading platform.
 - or from the LPA (if they provide this service).
- c) Purchasing Statutory Biodiversity Credits (SBC). However, this must be a last resort.
 - i) SBCs are different from offsite biodiversity units sold in the offsite private market.
 - ii) SBCs are priced in tiers. Different habitats are grouped in tiers to reflect the cost to create, maintain and monitor different habitat types. Prices of SBCs are reviewed every six months. Tiers 'A1' to 'A5' refer to area habitats (A1 being lower value habitats and A5 higher value), tier 'H' refers to hedgerow, and 'W' to watercourse habitats. The SBM automatically calculates the required number of SBCs and sorts the biodiversity habitat deficit into the right pricing tiers.
 - iii) A spatial risk multiplier is also applied to the SBCs to ensure they do not compete with biodiversity units in the offsite market. Therefore, one credit is worth 0.5 biodiversity units. The spatial risk multiplier is applied automatically and factored into the unit shortfall summary.

5.0 **RECOMMENDATIONS**

- 5.1 In order to secure the best outcomes for nature, the mitigation hierarchy should be followed. Impacts to highly distinctive habitats and high-quality habitats should be first avoided, and if unavoidable mitigated or compensated. Habitat provision should be targeted where it has more impact and provides the best outcomes for nature.
- 5.2 Prior to completed landscape plans, the following measures are recommended to achieve a net gain as required by Policy SP21 and the NPPF:
 - New landscape planting including trees and shrubs to use native species which bear fruit and nectar.

- Any formal lawn areas should be seeded with a species-rich flowering lawn mix such as Emorsgate EL1 – Flowering Lawn Mix.
- Any formal lawn areas should also have a mowing regime implemented which allows the grass and forbs to grow, flower, and set seed during the summer months, providing a nectar source for pollinators as well as replenishing the soil's seed bank.

Additional Enhancements

5.3 The metric calculations do not account for the following additional enhancement measures that may be provided within the development proposals as these cannot be quantified using the SBM calculator. The inclusion of the following biodiversity enhancements would be considered a benefit to biodiversity.

- Provision of bat and bird boxes throughout the site;
- Installation of gaps for hedgehogs within boundary treatments (where feasible) to maintain connectivity through the site for hedgehogs;
- Provision of invertebrate boxes or bee bricks;
- Log piles to act as refugia for a range of species within areas of open space.

APPENDIX A: STATUTORY BIODIVERSITY METRIC (SBM)

The headline results are provided below. Please see the accompanying SBM (excel document) for further details.

Note that the errors occur as a result of no post-development habitats being inputted. The results only show the baseline value of the site.

Church Bank, Jarrow, FE568		Return to results menu		
Headline Results				
Scroll down for final results ▲				
On-site baseline	Area habitat units	3.63		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	Area habitat units	-3.63	-100.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
On-site net gain is less than target set ▲				
Off-site baseline	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	Area habitat units	0.00	0.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-3.63		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-3.63		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-100.00%		
	Hedgerow units	0.00%		
	Watercourse units	0.00%		
Total net gain achieved is less than target set ▲				
Trading rules satisfied?	No - Check Trading Summaries ▲			
Area created must match area lost for both onsite and offsite ▲				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	3.63	3.99	3.99
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00
No additional hedgerow units required to meet target ✓				
No additional watercourse units required to meet target ✓				
Input errors/rule breaks present in metric ▲				



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Key

Site Boundary

Pre-development Habitats

- Buildings
[Urban: Developed land; sealed surface]
- Hardstanding
[Urban: Developed land; sealed surface]
- Cultivated/disturbed land - Ephemeral/short perennial
[Sparsely vegetated land: Ruderal/Ephemeral]
- Other tall herb and fern - ruderal
[Sparsely vegetated land: Ruderal/Ephemeral]
- Scrub - dense/continuous
[Heathland and shrub: Mixed scrub]
- Scrub - dense/continuous
[Heathland and shrub: Bramble scrub]
- Broadleaved woodland - plantation
[Woodland and forest: Other woodland; broadleaved]
- Small individual tree
[Individual tree: Urban tree]
- Medium individual tree
[Individual tree: Urban tree]



Client: AMG Utility Solutions
Project: Church Bank, Jarrow
Title: Figure 1 - Baseline Habitat Plan

Plan Reference: FE568_01
Project Reference: FE568
Report Reference: BIA01

Author: JL
Date: 19/8/2025
Scale: 1:1,000



C:\Users\james.lally\Futures Ecology Ltd\James.Eales - Projects\FE568 Church Bank, Jarrow\QGIS\1_Plans\FE568_Biodiversity Net Gain Plan.qgs
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