FUTURESECOLOGY

Cushmen and Wakefield

Wrexham Gateway

BIODIVERSITY IMPACT ASSESSMENT (BIA)

Report Reference Number: FE500/BIA01

July 2025

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REV	Issue Status	Notes	Author or Reviewer	Name & Qualifications	Position	Date
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1.0 INTRODUCTION

1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Cushmen and Wakefield. 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 a site at the centre of Wrexham, North Wales (grid reference: SJ 33016 50805).

SITE LOCATION AND CONTEXT

1.2 The site is located in the northwest of Wrexham city centre off Station Approach and encompasses Wrexham Train Station, railway lines and embankments as an area of vacant ground and commercial units. In the northwestern corner is Wrexham District Scout and Girl Guide facilities.

1.3 Surrounding the site on all sides is the urban centre of Wrexham with the A541 forming the southern boundary and Wrexham Football stadium along the western boundary. Residential development is present along the northern and eastern boundaries.

1.4 The site was found to be comprised of primarily hardstanding and several buildings, with scattered areas of ruderal/ephemeral, mixed scrub, introduced shrub and improved grassland. With twenty-six trees spread across the site.

DEVELOPMENT PROPOSALS

1.5 The proposals comprise the demolition of the Scout / Girl Guide facilities and retaining wall to facilitate the construction of a new four storey office building. New pedestrian links are proposed from Mold Road to the station platform and a new car park in the northern extent of Site. To facilitate vehicular access into the proposed site a total of 12 trees will be lost with the remaining habitats incorporated into the new layout.

2.0 METHODOLOGY

FIELD SURVEY – HABITATS

Personnel

2.1 The initial habitat and protected species surveys were undertaken by A. Eales BSc (Hons) who has extensive experience in undertaking these surveys. A. Eales is registered to use Natural England Class Licences in England: Level 2 to survey for bats (CL20: 2021-52518-CLS-CLS) and great crested newts (2016-22825-CLS-CLS).

2.2 The follow-up survey was undertaken by J. Wheeldon who is appropriately qualified for the surveys based on the CIEEM competencies for species surveys and holds licences for bats (WML-CL18, Ref: 2015-12340-CLS-CLS), great crested newt *Triturus cristatus* (WML-CL08, Ref: 2015-12340-CLS-CLS) and white-clawed crayfish *Austropotamobius pallipes* (WML-CL11, Ref: 2016-20902-CLS-CLS).

Habitat Appraisal

2.3 A Phase 1 Habitat Survey of the Site was completed by A. Eales BSc (Hons) of Futures Ecology Ltd. on the 28th January 2025 and the follow up survey was undertaken by J. Wheeldon on the 3rd April 2025.

2.4 Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016[1] 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 DAFOR[2] method[3]. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.

2.5 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.

2.6 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.

2.7 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).

[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/

Habitat Condition Assessment

2.8 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.

Soil Type

2.9 Soil type was determined from Land Information System (LandIS)[5].

2.10 The site consists entirely of Soilscape 6, which is defined as freely draining lightly acid loamy soils.

Strategic Significance

2.11 The strategic significance of the on-site baseline habitats was determined by whether the habitats fell within:

- any designated sites;
- any national habitat networks (as identified using the Multi Agency Geographic Information for the Countryside (MAGIC)[6]); or
- any local sites or green infrastructure corridors.

2.12 As well as this, no alternative documents were specified, the strategic significance was determined (using suggestions provided within the User Guide (February 2024)[7]) by the following:

- High = As no alternative documents have been specified by the Local Authority only the medium and low strategic significance categories are applicable to the site.
- Medium = the following alternative documents / designations which have been considered to aid in the justification and determination of areas with medium strategic significance:
    - any national or local designated sites with nature conservation designations (e.g. SPA, SAC, SSSI, RAMSAR, NNR, LNR, LWS) as identified using the Multi Agency Geographic Information for the Countryside (MAGIC)[8];
    - any locations / habitats with relevant ecological policies identified within the the Local Plan (Unitary Development Plan 1996-2011)[9] as shown on the Local Plan Policies Map;
    - any locations / habitats with relevant ecological policies identified within the Neighbourhood Plan as shown on the Neighbourhood Plan Map;

[5] https://www.landis.org.uk/soilscapes/
[6] www.magic.defra.gov.uk
[7] DEFRA (February 2024) The Statutory Biodiversity Metric. User Guide.
[8] Multi Agency Geographic Information for the Countryside (MAGIC). Available at: www.magic.defra.gov.uk Accessed: January 2024
[9] https://www.wrexham.gov.uk/service/development-plans-and-other-planning-policy/unitary-development-plan-1996-2011

- any locations / habitats with relevant ecological significance in relation to the Green Infrastructure (GI) strategy;
- any locations / habitats within relevant woodland strategy (e.g. one for West Yorks is the White Rose Forest, note that Low-Risk Planting Areas have been superseded[10] by the England Woodland Creation Low Sensitivity Map v3.0[11]); or
- any wildlife ponds created within Great Crested Newt (GCN) Strategic Opportunity Areas (SOA) [if relevant – the guidance does suggest Species conservation and protected sites strategies].

BIODIVERSITY IMPACT ASSESSMENT (BIA)

2.13 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

2.14 The first habitat survey was completed outside of the optimal survey period (April – September) and full access to the site was not possible at this time, however this is not believed to have been a significant constraint as the second extended habitat survey was completed within the optimal survey period and full access to the site, to determine the habitat type of preciously inaccessible areas, was possible. As such, no limitations are considered relevant to this assessment.

[10] Forestry Commission (August 2023) A guide to Forestry Commission's Sensitivity Maps for Woodland Creation.
[11] https://www.data.gov.uk/dataset/e46ec791-8888-4e89-8427-f720baf5cdca/england-woodland-creation-low-sensitivity-map-v3-0

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	Urban: Developed land; sealed surface	**N/A – Other**
Hardstanding	Urban: Developed land; sealed surface	**N/A – Other**
Introduced shrub	Urban: Introduced shrub	**Condition assessment N/A**
Cultivated/Disturbed land – Ephemera/Short perennial	Sparsely vegetated land: Ruderal/Ephemeral	**Condition: Moderate** Pass: A, and C Fail: B
Modified grassland	Grassland: Improved grassland	**M1** **Condition: Poor** Pass: C, D, E, F, and G Fail: A, and B **M2** **Condition: Poor** Pass: B, D, C, E, F, and G Fail: A
Scrub - Dense/Continuous	Heathland and scrub: Mixed scrub	**S1 and S2** **Condition Poor** Pass: A, and C Fail: B, D, and E
Broadleaves trees	Individual trees: Urban tree	**T22 (T1), T21 (T2), T3 (T7), T2 (T8), G1 (T9), G1 (T10)** **Condition: Good** Pass: A, B, C, D, and F Fail: E
Broadleaves trees	Individual trees: Urban tree	**T19 (T11), T5 (T12), T18 (T13), T17 (T14), T16, (T15), T6 (T16), T7 (T17), T15 (T18), T8 (T19), T9 (T20), T10 (T21), T11 (T22), T13 (T23), T12 (T24)** **Condition: Moderate** Pass: B, C, E, and F Fail: A, and E
Broadleaves trees	Individual trees: Urban tree	**G2 (T5), G2 (T6), T4 (T4), T20 (T3), G3 (T25), G3 (T26)** **Condition: Moderate** Pass: A, B, C, and D Fails: E, and F

Strategic Significance

3.4 Strategic significance has been applied to the baseline habitats as described in the methodology.

3.5 No onsite habitats fell within any of the strategic significance criteria set out in the methodology. As such, all habitats are considered to have a low strategic significance.

Baseline Summary

3.6 From the completed Statutory Biodiversity Metric, the value of the existing onsite habitats is **4.50 Habitat Units** and **0.00 Hedgerow Units** (see Appendix A).

4.0 BIODIVERSITY IMPACT ASSESSMENT

4.1 In accordance with the NPPF (December 2023)[12] the aim is to generate a measurable net gain for biodiversity.

4.2 The Environment Act 2021[13] became mandatory on 12th February 2024 and requires a minimum 10% net gain in biodiversity units.

Site

4.3 Figure 2 outlines the habitat areas post development across the Site.

4.4 The proposed habitats are based on '7682_application drawings' 18/06/2025 produced by Stephenson Hamilton Risley Studio.

Lost Habitats

4.5 Given the extent of the development, it is anticipated that most onsite habitats will be lost, including the majority of developed land; sealed surface, ruderal/ephemeral, modified grassland, introduces shrub, mixed scrub and ten urban trees.

Retained Habitats

4.6 Three onsite buildings (B3, B4, and B5) will be retained, as well as sixteen urban trees (G1 (T9), G1 (T10), G3 (T25), G3 (T26), T19 (T11), T5 (T12), T18 (T13), T17 (T14), T16 (T15), T6 (T16), T7 (T17), T15 (T18), T11 (T22), T13 (T23), and T12 (T24)).

Created Habitats

4.7 The proposals for the Site include a large area of hardstanding [Urban: Developed land; sealed surface] for parking and associated urban infrastructure.

4.8 The roads will have grass verges and amenity lawn planting [Grassland: Modified grassland] and will also be planted with small trees [Individual trees: Urban tree].

4.9 A landscape buffer composed of native mixed scrub species [Heathland and shrub: Mixed scrub] will be planted.

4.10 Throughout the site there will be areas of Public Open Space (POS). These areas of POS will include:

- Areas of wildflower meadows [Grassland: Other neutral grassland] which are to be seeded with a wildflower meadow mix (such as EM1 Emorsgate Meadow Mix);
- a SUDS feature planted with a wet grassland mix [Grassland: Modified grassland] (e.g. Emorsgate EM8)); and
- the planting of small native trees [Urban: Urban tree].

[12] Department for Levelling Up, Housing & Communities (December 2023). National Planning Policy Framework. London
[13] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

Post Development Summary

4.11 Post development, the onsite habitat retention, enhancement, and creation (Figure 2) with long-term management (for a minimum of 30 years) will achieve **5.19 Habitat Units** and **0.03 Hedgerow Units.** This is a **total net unit change of +0.69 Habitat Units** and **+0.03 Hedgerow Units.** This equates to a **+15.26% net gain in Habitat Units.**

4.12 As there are no hedgerows on site in the baseline, the metric cannot calculate a percentage net change. However, planting any quantity of hedgerow features will result in a sufficient positive net gain.

4.13 The proposals for the Site do not satisfy the area habitat trading rules. This is due to the loss of the individual urban trees. As a result, the rule for medium distinctiveness habitats has not been met. This rule requires habitats to be replaced by habitats of the '*same broad habitat or a higher distinctiveness habitat*'.

Additional Enhancements

4.14 The above calculation does not account for the following additional enhancement measures that will be provided within the development as these cannot be quantified using the BM calculator. The inclusion of the following biodiversity enhancements with what has already been outlined above would be considered a benefit to biodiversity.

- Provision of bat and bird boxes throughout the site;
- Installation of gaps for hedgehogs within boundary treatments;
- Log piles to act as refugia for a range of species within areas of greenspace.

Recommendations

4.15 For additional information on recommendations consult the associated Ecological Impact Assessment, Futures Ecology, July 2025.

Good Practice Principles for Development

4.16 The CIEEM Good Practice Principles for Development[14] provide an industry-standard to demonstrate that development projects have followed best practice. Table 2 below provides a summary of how these principles have been followed throughout this project.

[14] https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf

Table 2: Biodiversity Net Gain Good Practice Principles for Development[15] Summary

Principle	Justification of measures in place to achieve each Principle
Principle 1: Apply the Mitigation Hierarchy Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.	The baseline habitats on-site were of very low (developed land; sealed surface), low distinctiveness (modified grassland) or medium distinctiveness (mixed scrub). The majority of losses could not be avoided given the scale of the development and the small size of the site.
Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere Avoid impacts on irreplaceable biodiversity - these impacts cannot be offset to achieve No Net Loss or Net Gain.	There are no irreplaceable habitats on-site, so all baseline habitats are able to be offset (if required).
Principle 3: Be inclusive and equitable Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Net Gain. Achieve Net Gain in partnership with stakeholders where possible, and share the benefits fairly among stakeholders.	The metric results were provided as soon as available and disseminated to all relevant parties. Futures Ecology were in contact with the client, to help inform their design.
Principle 4: Address risks Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.	The post-development habitats are limited to buildings, hardstanding and PoS. Off-site habitats (to be determined) will be managed for a minimum of 30 years to achieve their target condition, with remediation undertaken if required over that time.
Principle 5: Make a measurable Net Gain contribution Achieve a measurable, overall gain1 for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.	There is currently a net gain in Biodiversity Habitat and Hedgerow Units.

[15] https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf

Principle 6: Achieve the best outcomes for biodiversity Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly-justified choices when: • Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses • Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation • Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels • Enhancing existing or creating new habitat • Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity	The Biodiversity Habitat and Hedgerow Units on and off-site (to be determined) will have a benefit for biodiversity and incorporate habitats which will have benefits for local wildlife populations, such as bats, nesting birds, hedgehogs etc.
Principle 7: Be additional Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).	The net gains in Biodiversity Habitat Units on site would not occur in the absence of this exercise.
Principle 8: Create a Net Gain legacy Ensure Net Gain generates long-term benefits by: • Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity[16] • Planning for adaptive management and securing dedicated funding for long-term management • Designing Net Gain for biodiversity to be resilient to external factors, especially climate change • Mitigating risks from other land uses • Avoiding displacing harmful activities from one location to another • Supporting local-level management of Net Gain activities	Long-term management of the habitats created will be secured under a planning condition or legal agreement.
Principle 9: Optimise sustainability Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy	The habitats created on-site and net gains in Biodiversity Habitat and Hedgerow Units will have a benefit for biodiversity and people.
Principle 10: Be transparent Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders	Net gain information has been communicated in a transparent and timely manner.

[16] Biodiversity compensation should be planned for a sustained Net Gain over the longest possible timeframe. For development in the UK, the expectation is that compensation sites will be secured for at least the lifetime of the development (e.g. often 25-30 years) with the objective of Net Gain management continuing in the future.

APPENDIX A: STATUTORY BIODIVERSITY METRIC (SBM)

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

Wrexham Gateway

Headline Results

Return to results menu

Scroll down for final results ⚠

On-site baseline	*Habitat units*	4.50		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	5.19		
	Hedgerow units	0.03		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	0.69	15.26%	
	Hedgerow units	0.03	N/A	Zero baseline units - % cannot be calculated
	Watercourse units	0.00	0.00%	
Off-site baseline	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	*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)	*Habitat units*	0.69		
	Hedgerow units	0.03		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	*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)	*Habitat units*	0.69	
	Hedgerow units	0.03	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	15.26%	
	Hedgerow units	N/A	0 baseline units - % cannot be calculated
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	4.50	4.95	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Input errors/rule breaks present in metric ▲

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Key

- Site Boundary

Pre-development Layers

- Buildings [Urban: Developed land; sealed surface]
- Hardstanding [Urban: Developed land; sealed surface]
- Introduced shrub [Urban: Introduced scrub]
- Cultivated/disturbed land - Ephemeral/short perennial [Sparsely vegetated land: Ruderal/Ephemeral]
- Improved grassland [Grassland: Modified grassland]
- Scrub - dense/continuous [Heathland and shrub: Mixed scrub]
- Broadleaved tree (NONE)

0 50 100 m

Client:	Cushmen and Wakefield	Plan Reference:	FE500_01	Author:	CC
Project:	Wrexham Gateway	Project Reference:	FE500	Date:	10/7/2025
Title:	Figure 1 - Baseline Habitat Plan	Report Reference:	FE500/BIA01	Scale:	1:1,500

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Key

- Site Boundary

Post-development Layers

- Buildings [Urban: Developed land; sealed surface]
- Hardstanding [Urban: Developed land; sealed surface]
- Introduced shrub [Urban: Introduced scrub]
- Cultivated/disturbed land - Amenity grassland [Grassland: Modified grassland]
- Neutral grassland - semi-improved [Grassland: Other neutral grassland]
- Lawn planting [Grassland: Modified grassland]
- Intact hedge - species-poor [Native Hedgerow]
- Small individual tree [Individual tree: Urban tree]
- Retained tree

Client:	Cushmen and Wakefield	Plan Reference:	FE500_02	Author:	CC
Project:	Wrexham Gateway	Project Reference:	FE500	Date:	10/7/2025
Title:	Figure 2 - Proposed Habitat Plan	Report Reference:	FE500/BIA01	Scale:	1:1,500

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