



FUTURESECOLOGY

Persimmon Homes

Land at Paddock Road, Kirkburton

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 Persimmon Homes. 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 Paddock Road, Kirkburton (grid reference: SE 20013 13367).

SITE LOCATION AND CONTEXT

- 1.2 The Site is c. 7.57ha in extent and comprised four poor semi-improved grassland fields, utilised for horse grazing. The fields were separated with a mixture of fences, dry stone walls, and scattered trees. Some small areas of tall ruderal vegetation were present throughout the Site. Within the centre of Site were a number of temporary structures, comprising storage containers, chicken coops, and sheds, as well as large hay piles and rubbish heaps.
- 1.3 The Site is located on the northern edge of the village of Kirkburton, c. 6km southeast of the centre of Huddersfield, West Yorkshire. The Site is bound by Moor Lane to the north, Paddock Road to the east, and Burton Acres Lane to the south. To the west, the Site is bound partly by residential houses and partly by a playing field. The landscape immediately surrounding the Site comprises the residential development of Kirkburton to the south and west. To the north and east lies primarily agricultural land.

DEVELOPMENT PROPOSALS

- 1.4 Outline planning application for up to 160 residential units with associated gardens, infrastructure and greenspace provision.

2.0 METHODOLOGY

FIELD SURVEY – HABITATS

Personnel

- 2.1 The habitat survey and protected species assessment was conducted by D. Heppenstall BSc (Hons). D. Heppenstall has over 1.5 years' experience of conducting and leading field surveys across a wide range of sites and is appropriately qualified for the surveys based on the CIEEM competencies.

Habitat Appraisal

- 2.2 The habitat appraisal of the Site was completed by D. Heppenstall on the 17th of July 2025.
- 2.3 Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016¹ comprising a walkover of the survey area mapping (using JNCC standard

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

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, July 2025) which accompanies the Statutory Biodiversity Metric. Assessment criteria were followed for each broad habitat type, to determine the condition of each habitat.

Soil Type

- 2.8 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 2025)⁶.
- 2.11 West Yorkshire Combined Authority (WYCA) has been appointed by DEFRA to be the Responsible Authority⁷ to lead on the development of the LNRS for West Yorkshire. The

² DAFOR: D – Dominant (>75%), A – Abundant (51 – 75%), F – Frequent (26 – 50%), O – Occasional (11 – 25%), R – Rare (1-10%), 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/>

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

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

⁷ <https://www.gov.uk/government/publications/local-nature-recovery-strategies-areas-and-responsible-authorities#full-publication-update-history>

strategic significance has therefore been assigned following the adopted LNRS⁸, in line with Table 1 below, which is consistent with the SBM User Guidance.

Table 1: Methodology for the Application of Strategic Significance

Category	Score	Description
High (Formally identified in local strategy)	1.15	This category can only be applied to post development interventions when: - the location of the habitat parcel has been mapped in the Local Habitat Map as an area where a potential measure has been proposed to help deliver the priorities of that LNRS; and - the proposed intervention is consistent⁶ with the mapped potential measure in the LNRS for the habitat parcel
Medium (Location ecologically desirable but not in local strategy)	1.10	This category cannot be applied.
Low (Area / compensation not in local strategy)	1	Where the definitions for high strategic significance are not met. Even if your project is in an area mapped with a potential measure, if the proposed intervention is not consistent with a potential measure proposed by the LNRS for that location, you should record strategic significance as low.

BIODIVERSITY IMPACT ASSESSMENT (BIA)

- 2.12 To quantify deliverable net gain for the Site, the baseline value of the habitats within the Site have been calculated utilising the Statutory Biodiversity Metric⁹.

Survey Limitations

- 2.13 The habitat survey was carried out during the optimal period for surveys (April – September). As such, no survey limitations are anticipated.

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.

⁸ West Yorkshire Combined Authority (WYCA) Local Nature Recovery Strategy. <https://www.westyorks-ca.gov.uk/media/erclnf4l/west-yorkshire-local-nature-recovery-strategy.pdf>

⁹ Statutory Biodiversity Metric. Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> Accessed: November 2025

Table 2: Summary of Habitats

Phase 1 Habitat	UK Hab Code	Biodiversity Metric Habitat Type	Brief Description and Habitat Condition Assessment (HCA)
Area Habitats			
Poor semi-improved grassland	G4	Modified grassland (G1)	Passes: A, B, C, D, E, F, G Condition: Good
Other tall herb and ruderal	G16	Tall forbs (TF1)	Passes: B, C Fails: A Condition: Moderate
		Tall forbs (TF2)	Passes: C Fails: A, B Condition: Poor
Broadleaved trees	203	Rural tree (T1) 1 x medium	Passes: B, D, E, F Fails: A, C Condition: Moderate
		Rural tree (T2, T22) 2 x large	Passes: A, B, C, D, E, F Condition: Good
		Rural tree (T3) 1 x medium	Passes: A, B, D, E, F Fails: B Condition Good
		Rural trees (T11, T12, T19, T20, T23, T24, T28) 5 x small; 2 x medium	Passes: B, D, F Fails: A, C, E Condition: Moderate
		Rural tree (T10, T13, T14, T15, T16, T17, T21, T26, T33) 8 x small; 1 x medium	Passes: A, B, D, F Fails: C, E Condition: Moderate
		Rural tree (T25, T29, T30, T31, T32) 5 x small	Passes: A, B, D, E, F Fails: C Condition: Good
		Rural tree (T18, T27) 1 x medium; 1 x large	Passes: B, C, D, E, F Fails: A Condition: Good
Hedgerow Habitats			
Broadleaved trees	33	Ecologically valuable line of trees (TL1, including PRF trees T6, T7, T8, T9)	Passes: A, C, E Fails: B, D Condition: Moderate
		Line of trees (TL2, including PRF trees T4 and T5)	Passes: A, C, D, E Fails: B Condition: Moderate
		Line of trees (TL3)	Passes: B, E Fails: A, C, D Condition: Poor

Soil Type

- 3.4 The Site is located primarily within a parcel mapped as Soilscape 17; this is described as slowly permeable seasonally wet acid loamy and clayey soils. A small section in the west of the Site is located within a parcel mapped as Soilscape 6; this is described as freely draining slightly acid loamy soils. This information was provided by LandIS¹⁰ and broader details of the soil structure can be found below:

Table 3: Soil Type

Property	Soilscape 6	Soilscape 17
Drainage	Freely draining	Impeded drainage
Fertility	Low	Low

¹⁰ <https://www.landis.org.uk/soilscales/>

Property	Soilscape 6	Soilscape 17
Landcover	Arable and grassland	Grassland with some arable and forestry
Habitats	Neutral and acid pastures and deciduous woodlands; acid communities such as bracken and gorse in the uplands	Seasonally wet pastures and woodlands
Carbon	Low	Medium

Strategic Significance

- 3.5 Strategic significance has been applied to the baseline habitats as described in the methodology.
- 3.6 As an LNRS has been published, the high and medium strategic significance categories cannot be applied to the baseline habitats. Therefore, all baseline habitats have been allocated the low strategic significance category.

Baseline Summary

- 3.7 From the completed Statutory Biodiversity Metric, the value of the existing onsite habitats is **48.08 Area Habitat Units** and **1.47 Hedgerow Units** (see Appendix A).

4.0 BIODIVERSITY IMPACT ASSESSMENT

- 4.1 In accordance with the NPPF (August 2026)¹¹ the aim is to generate a measurable net gain for biodiversity.
- 4.2 Policy LP30: Biodiversity and Geodiversity of the Kirklees Local Plan (adopted 2019)¹² states that development proposals should “*minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist*”.
- 4.3 The Environment Act 2021¹³ became mandatory on 12th February 2024 and requires a minimum 10% net gain in biodiversity units.

Site

- 4.4 Figure 2 outlines the habitat areas post development across the Site.
- 4.5 The proposed habitats are based on the current Illustrative Masterplan (Pegasus Group, 11/06/2026, P25-1724-DE-002-F-002), as well as the Illustrative Landscape Masterplan (Pegasus Group, 02/09/2026, P25-1724_EN_0001 Rev: E).

¹¹ Ministry of Housing, Communities & Local Government (August 2026). National Planning Policy Framework. London

¹² <https://www.kirklees.gov.uk/beta/planning-policy/pdf/local-plan-strategy-and-policies.pdf>

¹³ <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

Retained and Lost Habitats

- 4.6 All poor semi-improved grassland and tall ruderal vegetation within the Site will be lost to the development.
- 4.7 Approximately 71m of treeline TL2 will be lost to facilitate the development, whilst approximately 34m will be retained.
- 4.8 The entirety of treelines TL1 and TL3 will be retained.
- 4.9 Seventeen trees will be lost to the development (T10 – 15, T19, T20 – T25, and T29 – T32), whilst the remaining ten trees will be retained (T1 – T3, T16 – T18, T26 – T28, and T33).

Enhanced Habitats

- 4.10 No habitats will be enhanced.

Created Habitats

- 4.11 The proposals for the Site include a residential development [Urban: Developed land; sealed surface] with associated gardens [Urban: Vegetated gardens] and parking as well as road infrastructure [Urban: Developed land; sealed surface].
- 4.12 Note that detailed layouts were not available at this stage of the project. As such a 70:30 split between developed land and vegetated garden was used for parcels indicated as residential development. This is the recommended approach in the SBM User Guide (page 59)¹⁴, which states:
- “Where detailed plans are not available, you should use a default 70:30 ratio of ‘urban – developed land; sealed surface’ to ‘urban – vegetated garden’ when assessing habitats within areas outlined for housing. This ratio:*
- *does not account for access roads and public open spaces*
 - *may be adjusted for particularly high-density or low-density developments”*
- 4.13 The recommended approach has been taken, as permitted, and access roads and POS are indicated separately and are not included within the ratio. There has been no adjustment to the ratio.
- 4.14 Throughout the Site there will be areas of Public Open Space (POS). These areas of POS will include:
- Footpaths (Urban: Developed land; sealed surface).
 - Amenity grassland lawns [Grassland: Modified grassland] which are to be seeded with an flowering lawn mix (such as Emorsgate EL1).
 - Meadow grassland [Grassland: Other neutral grassland] which are to be seeded with a meadow mix (such as Emorsgate EM1).
 - Mixed scrub buffer planting [Heathland and shrub: Mixed scrub] in the southeast corner of the site.

¹⁴ https://assets.publishing.service.gov.uk/media/6a1d98e9c7335e2ca6daadd5/The_Statutory_Biodiversity_Metric_-_User_Guide_-_June_2026.pdf

- Mixed scrub planting [Heathland and shrub: Mixed scrub] throughout the site.
- Ornamental introduced shrub planting [Urban: Introduced shrub].
- The planting of 285 x small native trees [Urban: urban tree].

Strategic Significance

- 4.15 Strategic significance has been applied to the proposed habitats as described in the methodology.
- 4.16 No proposed habitats fell within any areas of proposed measures in the LNRS. Therefore, all proposed habitats have been allocated the low strategic significance category.

Post Development Summary

- 4.17 Post development, the onsite habitat retention and creation (Figure 2) with long-term management (for a minimum of 30 years) will achieve **19.91 Habitat Units** and **2.76 Hedgerow Units**. This is a **total net unit change of -28.17 Habitat Units** and **+1.29 Hedgerow Units**. This equates to a **-58.59% net loss in Habitat Units** and a **+87.42% net gain in Hedgerow Units**.
- 4.18 The proposals for the Site do not satisfy the area habitat trading rules. This is due to the loss of the modified grassland. As a result, the rule for low distinctiveness habitats has not been met. This rule requires habitats to be replaced by habitats of the '*same distinctiveness or better*'.
- 4.19 The proposals for the Site satisfy the hedgerow trading rules.

Additional Enhancements

- 4.20 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;
 - Provision of invertebrate boxes;
 - Installation of gaps for hedgehogs within boundary treatments;
 - Log piles to act as refugia for a range of species within areas of greenspace.

Recommendations

- 4.21 As the development proposals cannot deliver a net gain onsite in habitat units, there is a requirement to secure a net gain via an alternative mechanism.
- 4.22 In order to achieve a 10% net gain in onsite Habitat Units, the Site must have a Habitat Unit value of 52.89 (+4.81) post-development. However, the Site, as proposed, currently has a deficit of -32.98 Habitat Units. The Site proposals also did not satisfy the habitat area trading rules for low distinctiveness habitats due to the loss of modified grassland.

- 4.23 There are three alternative mechanisms in which developers can secure a net gain, and a combination of all three can be used. The three mechanisms for net gain delivery are:
- a) Enhancing and restoring biodiversity onsite (within the RLB).
 - Further consideration of the feasibility of onsite BNG provision, this could include altering the layout to provide and secure areas of POS for BNG provision. This route has already been explored, and creation of new biodiversity friendly habitats provided where possible within the current scheme.
 - 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.
 - c) Purchasing Statutory Biodiversity Credits (SBC)^{15, 16}. However, this must be a last resort.
 - a. SBCs are different from offsite biodiversity units sold in the offsite private market.
 - b. 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.
 - c. 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.
 - i. The unit shortfall for the proposed development site is 32.98 within Tier A1, which would equate to 65.96 SBCs required.

5.0 **GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT**

- 5.1 The CIEEM Good Practice Principles for Development¹⁷ 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.

Table 4: Biodiversity Net Gain Good Practice Principles for Development¹⁸ Summary

Principle	Justification of measures in place to achieve each Principle
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¹⁵ Statutory Biodiversity Credit Guidance. Available at: <https://www.gov.uk/guidance/statutory-biodiversity-credits> Accessed: July 2024

¹⁶ Statutory biodiversity credit prices. Guidance. Last updated February 2024. Available at: <https://www.gov.uk/guidance/statutory-biodiversity-credit-prices> Accessed: July 2024

¹⁷ <https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf>

¹⁸ <https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf>

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.	Certain losses of habitats could not be avoided and are to be lost under the footprint of the development. Landscaping has been amended from previous iterations to minimise impacts on biodiversity and to ensure that the maximum amount of units can be provided onsite, whilst continuing to deliver the proposals.
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 the site.
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.	Stakeholders have been engaged throughout the project's lifetime. The approach to net gain has been discussed and shared with all relevant stakeholders.
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 condition of the proposed habitats has been considered. The targets are set as either moderate or poor to ensure that they are reasonable for the locations in which the habitats are proposed, and to take into account any risks.
Principle 5: Make a measurable Net Gain contribution Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.	A net gain in Hedgerow Units is provided onsite, whilst off-site provision will be explored to provide the required Habitat Units.
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 Hedgerow Unit gain exceeds the 10% net gain target.

Principle 7: Be additional Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).	The Hedgerow Unit gain exceeds the 10% net gain target.
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 perpetuity¹⁹ • 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	The proposals are set to achieve and exceed the 10% net gain targets (through on and offsite provision). Long-term management of the habitats created will be secured under a 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 net gains in Hedgerow Units and Area Habitat Units (both on and off-site, to be determined) 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 with all relevant stakeholders.

¹⁹ 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.

Land off Paddock Road, Kirkburton		Return to results menu	
Headline Results			
Scroll down for final results ▲			
On-site baseline	Area habitat units	48.08	
	Hedgerow units	1.47	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	19.91	
	Hedgerow units	2.76	
	Watercourse units	0.00	
On-site net change (units & percentage)	Area habitat units	-28.17	-58.59%
	Hedgerow units	1.29	87.42%
	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	-28.17	
	Hedgerow units	1.29	
	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	-28.17	
	Hedgerow units	1.29	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-58.59%	
	Hedgerow units	87.42%	
	Watercourse units	0.00%	
Total net gain achieved is less than target set ▲			
Trading rules satisfied?	No - Check Trading Summaries ▲		
Unit Type	Target	Baseline Units	Units Required
Area habitat units	10.00%	48.08	52.89
Hedgerow units	10.00%	1.47	1.62
Watercourse units	10.00%	0.00	0.00
Unit Deficit			
			32.98
No additional hedgerow units required to meet target ✓			
No additional watercourse units required to meet target ✓			

APPENDIX B: HABITAT CONDITION ASSESSMENT (HCA)

(Over page)

Survey Cover Sheet			
Survey date/s	17/07/2025	Site name or location	FE589 Land at Paddock Road, Kirkburton
Weather conditions	Dry and clear	Project or development name	FE589 Land at Paddock Road, Kirkburton
Surveyor name	DH	On-site or off-site	On-site
Survey reference		Reason for assessment (if not baseline condition survey)	
Notes			

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	On-site	Survey date and Surveyor name	17.07.2025 DH
Limitations (if applicable)		Survey reference (if relating to a wider survey)	FE589
Grid reference		Habitat parcel reference	G1
Habitat Description			
ukhab – UK Habitat Classification			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Y	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Y	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)².	Y	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	

G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Y	
Essential criterion achieved (Yes or No)			Y
Number of criteria passed			7
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/√	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	Y	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i> . Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover. Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 – Wildlife and Countryside Act 1981 (as amended).			

Condition Sheet: INDIVIDUAL TREES Habitat Type													
Habitat Types													
Individual trees – Urban trees Individual trees – Rural trees Complete a condition sheet for each tree or block of trees.													
Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.													
Habitat Description													
Individual trees (description applied to the urban or rural environment): Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.													
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only): Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.													
On-site or off-site, site name and location		On-site		Survey date and Surveyor name		17.07.2025 DH							
				Survey reference (if relating to a wider survey)		FE589							
Limitations (if applicable)		Habitat parcel reference											
		T11, T12, T19,	T10, T13, T14,	T25, T29, T30,	T18, T27	T1	T2	T22	T3				
		Grid reference											
Condition Assessment Criteria													
		Criterion passed (Yes or No)											Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	N	Y	Y	N	N	Y	Y	Y				
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	Y	Y	Y	Y	Y	Y	Y				
C	The tree is mature (or more than 50% within the block are mature) ¹ .	N	N	N	Y	N	Y	Y	N				
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	Y	Y	Y	Y	Y	Y	Y				
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	N	Y	Y	Y	Y	Y	Y				

Habitat Types	
1	1
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9	9
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98	98
99	99
100	100

Line of trees – associated with bank or ditch

Ecologically valuable line of trees – associated with bank or ditch

Please see the separate individual trees condition sheet for linear blocks and groups of trees in an urban setting. You should only use this Line of trees condition assessment and record this habitat type in rural locations.

condition assessment and record this habitat type in rural locations.

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This assessment is based on the Hedgerow Survey Handbook¹. For further clarifications please refer to the Handbook.

On-site	17.07.25 DH
---------	-------------

On-site or off-site, site name and location	On-site	Survey date and Surveyor name	17.07.20 DM
		Survey reference (if relating to a wider survey)	FE589

Limitations (if applicable)	Habitat parcel reference										
	TL1	TL2	TL3								
	Grid reference										

Condition Assessment Criteria											
	Criterion passed (Yes or No)										Notes (such as justification)

A	At least 70% of trees are native species.	Y	Y	N								
---	---	---	---	---	--	--	--	--	--	--	--	--

B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	N	N	Y							
---	---	---	---	---	--	--	--	--	--	--	--

C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Y	Y	N								
---	---	---	---	---	--	--	--	--	--	--	--	--

D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .	N	Y	N								
---	---	---	---	---	--	--	--	--	--	--	--	--

E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Y	Y	Y								
---	--	---	---	---	--	--	--	--	--	--	--	--

Number of criteria passed	3	4	2								
---------------------------	---	---	---	--	--	--	--	--	--	--	--

Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved */√										
Passes 5 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)	Y	Y									
Passes 2 or fewer criteria	Poor (1)			Y								
Suggested enhancement interventions to improve condition score												
Footnotes												

[illegible]

Additional Criterion - must be assessed for Intensive green roofs only:													
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).												
Additional Criterion - must be assessed for Biodiverse green roofs only:													
G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note – to achieve Good condition, some additional habitat, such as sand piles, stones, logs etc. are present.												
Essential criteria relevant for habitat type achieved (Yes or No)		Y	Y										
Number of criteria passed		2	1										
Condition Assessment Result		Condition Assessment Score		Score Achieved ×/÷									
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):													
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.		Good (3)											
• Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)		Y									
• Passes 0 or 1 of 3 core criteria.		Poor (1)			Y								
Results for Green roofs and Open mosaic habitat on previously developed land (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):													
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (D, F or G).		Good (3)											
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)											
• Passes 0 or 1 of 4 criteria.		Poor (1)											
Results for Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):													
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria relevant to specific habitat type (Group E)		Good (3)											
• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)											
• Passes 2 or fewer of 5 criteria.		Poor (1)											
Suggested enhancement interventions to improve condition score													
Footnotes													

APPENDIX C: GRASSLAND SURVEY DATA

Grassland quadrat parcels were carried out through the onsite grassland. Grassland quadrat locations are provided on Figure 3.

Table 5: Grassland Survey Quadrat Data

Common Name	Latin Name	Quadrat Reference	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
		OS Grid Reference	SE 19903 13437	SE 19968 13463	SE 20038 13444	SE 20073 13482	SE 19874 13381	SE 19942 13371	SE 20038 13409	SE 20121 13407	SE 19910 13319	SE 19978 13303	SE 19945 13252	SE 19945 13252	SE 20097 13345	SE 20144 13375	SE 20081 13299	SE 20178 13316	SE 20057 13260
Creeping bent	<i>Agrostis stolonifera</i>		-	-	-	-	-	-	-	-	-	-	-	-	F	A	-	-	-
False oat grass	<i>Arrhenatherum elatius</i>		A	F	F	A	D	A	O	A	A	A	F	O	-	-	F	-	O
Common chicory	<i>Cichorium intybus</i>		O	O	-	-	-	-	O	-	-	-	-	-	-	-	-	-	-
Cocks foot	<i>Dactylis glomerata</i>		F	A	F	O	-	F	O	-	R	O	O	F	-	-	F	-	R
Common Hogweed	<i>Heracleum sphondylium</i>		-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	-	-
Yorkshire fog	<i>Holcus lanatus</i>		F	-	O	R	-	O	A	-	O	-	R	-	O	F	-	-	R
Common Ragwort	<i>Jacobaea vulgaris</i>		-	-	-	-	R	R	R	-	-	-	-	-	-	F	-	-	-
Perennial rye	<i>Lolium perenne</i>		-	F	-	-	-	-	F	F	-	-	O	A	A	A	A	A	A
Ribwort plantain	<i>Plantago lanceolata</i>		R	R	R	R	O	R	R	R	O	R	R	F	O	O	-	-	R
Broadleaved plantain	<i>Plantago major</i>		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	O	-

Rough meadowgrass	<i>Poa trivialis</i>		-	-	-	-	R	-	-	-	-	-	-	R	-	-	-	-	-
Meadow buttercup	<i>Ranunculus acris</i>		-	-	R	-	-	-	-	-	-	-	-	-	-	-	-	R	-
Creeping buttercup	<i>Ranunculus repens</i>		R	-	A	-	R	R	O	R	-	-	R	R	O	F	R	F	-
Common sorrel	<i>Rumex acetosa</i>		R	R	R	-	-	-	-	-	-	-	-	-	-	-	R	-	-
Autumn hawker	<i>Scorzoneroidea autumnalis</i>		-	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dandelion	<i>Taraxacum officinale agg.</i>		O	R	-	-	R	-	R	-	-	R	-	-	-	O	R	O	R
Red clover	<i>Trifolium pratense</i>		O	-	-	LF	O	O	LA	F	R	-	-	-	O	-	-	-	-
White clover	<i>Trifolium repens</i>		-	-	-	R	-	O	-	A	R	F	R	O	F	LA	R	A	O
Vetch species	<i>Vicia spp.</i>		F	-	-	-	R	-	-	-	-	-	-	-	-	-	-	-	-
Total Species (Forbs) Recorded per m ²			10 (7)	8 (5)	7 (4)	6 (3)	8 (6)	9 (6)	10 (6)	6 (4)	6 (3)	5 (3)	7 (3)	7 (3)	7 (4)	8 (5)	7 (4)	6 (5)	7 (3)
Average Species (Forbs) Recorded per m ²			7.29 (4.35)																



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Key

Site Boundary

Pre-development Layers

- Poor semi-improved grassland
[Grassland: Modified grassland]
- Other tall herb and fern - ruderal
[Sparsley vegetated land: Ruderal/Ephemeral]
- Broadleaved trees
[Line of Trees]
- Broadleaved trees (ecologically valuable)
[Line of Trees (Ecologically Valuable)]
- Small individual tree
[Individual tree: Rural tree]
- Medium individual tree
[Individual tree: Rural tree]
- Large individual tree
[Individual tree: Rural tree]



Client: Persimmon Homes
Project: Land off Paddock Road, Kirkburton
Title: Figure 1 - Baseline Habitat Plan

Plan Reference: FE589_01
Project Reference: FE589
Report Reference: BIA01

Author: EP
Date: 8/9/2026
Scale: 1:1,500



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Key

Site Boundary

Post-development Layers

- 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]
- Scrub - dense/continuous
[Heathland and shrub: Mixed scrub]
- Residential development - 70% Built development
[Urban: Developed land; sealed surface] and 30% Garden [Urban: Vegetated garden]
- Intact hedge - native species-rich
[Native Species Rich Hedgerow]
- Hedges: Introduced shrub
[Non-native and ornamental hedgerow]
- Broadleaved trees
[Line of Trees]
- Broadleaved trees (ecologically valuable)
[Line of Trees (Ecologically Valuable)]

Post-development Trees

- Small individual tree
[Individual tree: Urban tree]
- Retained tree
[Individual tree: Urban tree]



Client: Persimmon Homes
Project: Land off Paddock Road, Kirkburton
Title: Figure 2 - Proposed Habitat Plan

Plan Reference: FE589_02
Project Reference: FE589
Report Reference: BIA01

Author: EP
Date: 10/9/2026
Scale: 1:1,500



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Key

 Site Boundary

Pre-development Habitats

 Poor semi-improved grassland
[Grassland: Modified grassland]

 Other tall herb and fern - ruderal
[Sparsley vegetated land: Ruderal/Ephemeral]

 Grassland Quadrat Locations



Client: Persimmon Homes

Project: Land off Paddock Road, Kirkburton

Title: Figure 3 - Grassland Quadrat Locations

Plan Reference: FE589_01

Project Reference: FE589

Report Reference: BIA01

Author: EP

Date: 10/9/2026

Scale: 1:1,500



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