

Biodiversity Metric Report

Henthorn Road, Clitheroe

Reference: 82-168-R6-2

Date: December 25





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EXECUTIVE SUMMARY

| | | | | | | | |
|--|---|---------------|-------|----------------|-------|-------------------|-------|
| Site Address | Land north and south of Henthorn Road, Clitheroe, Ribble Valley, BB7 2SN | | | | | | |
| Co-ordinates | E 372958, N 440590 | | | | | | |
| Site Area | Approximately 7.21 ha | | | | | | |
| Current Site Use | The site comprised two modified grassland fields separated by Henthorn Road. Hedgerows and scattered trees were present surrounding the fields. A small area of lowland mixed deciduous woodland was present in the northwest of the site. An unnamed watercourse ran through the southern grassland field and Pendleton Brook formed the site's southern boundary. | | | | | | |
| Proposed Development | Development proposals comprise an outline planning application for the construction of residential units with associated gardens, access roads, and hard and soft landscaping. | | | | | | |
| Results | <p>The biodiversity metric shows that the proposed development can achieve gain in habitat, hedgerow and watercourse units in line with E3P's recommendations as follows:</p> <table border="0"> <tr> <td>Habitat Units</td> <td>+1.75</td> </tr> <tr> <td>Hedgerow Units</td> <td>+1.19</td> </tr> <tr> <td>Watercourse Units</td> <td>+0.50</td> </tr> </table> <p>A 10.62% gain in habitat units, an 11.10% gain in hedgerow units and a 17.75% gain in watercourse units could be incurred on-site as a result of development and E3P's recommendations, if implemented. The trading rules of the metric would be satisfied as habitats lost would be 'traded up'.</p> | Habitat Units | +1.75 | Hedgerow Units | +1.19 | Watercourse Units | +0.50 |
| Habitat Units | +1.75 | | | | | | |
| Hedgerow Units | +1.19 | | | | | | |
| Watercourse Units | +0.50 | | | | | | |
| Conclusions and Recommendations | <p>The proposed scheme and recommendations show a total gain of 1.75 habitat units (10.62%), 1.19 hedgerow units (11.10%) and 0.50 watercourse units (17.75%).</p> <p>Based on the Development Framework Plan and the recommendations detailed in this report, the scheme can achieve a higher than 10% gain and satisfy the trading rules for habitat, hedgerow and watercourse units. This exceeds the mandatory 10% requirement outlined in the Environment Act 2021. As such, off site compensation will not be required.</p> <p>As the current works have been undertaken on an illustrative plan to inform an outline application, detailed layouts and landscape plans were not produced to support the assessment. As such, the current works looks to demonstrate that a 10% net gain is achievable. When final plans are produced as part of the reserved matters application, the gains detailed within the current report may change slightly. Although, the scheme is anticipated to reach the 10% requirement as a minimum.</p> <p>To achieve a 10% gain in watercourse units, WC1 and Pendleton Brook could be enhanced through the reduction in riparian encroachment. A 10 m vegetated buffer should be created along the bank top of the watercourses.</p> <p>Additional species enhancements could be provided on-site, which could include bat and bird boxes, hedgehog houses and hibernacula.</p> | | | | | | |



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1. INTRODUCTION

1.1. BACKGROUND

E3P has been instructed by Gladman Developments Limited to undertake a Biodiversity Metric Calculation at Henthorn Road, Clitheroe, hereafter referred to as “the site”.

This report has been produced by Phoebe Parry BSc (Hons) Consultant Ecologist at E3P. Phoebe holds a Qualifying membership of CIEEM and has a Level 4 Field Identification Skills Certificate (FISC). Phoebe has experience undertaking condition assessments and Biodiversity Net Gain assessments on a range of projects across the UK. She has also undertaken a Modular River Survey training course focussing on generating River Condition, for which she is accredited.

This report should be read in conjunction with ‘The Statutory Biodiversity Metric Calculation Tool – Henthorn Road, Clitheroe.xl’.

1.2. PREVIOUS SURVEYS

E3P undertook a Preliminary Ecological Appraisal on site in April 2025 (report reference: 82-535-R1). The survey included a Condition Assessment for habitats on site. During the survey, the site was found to comprise modified grassland, developed land; sealed surface, lowland mixed deciduous woodland, individual trees, other rivers and streams, ditches, native hedgerow with trees, species rich native hedgerow and species-rich native hedgerow with trees.

1.3. SITE LOCATION

The site comprises two parcels of land located north and south of Henthorn Road. The site is located at the southwestern edge of Clitheroe. Pendleton Brook defines the site’s southern boundary. The River Ribble is located 110 m northwest of the site at its closest point. An active railway line is located 180 m east of the site, and a sewage treatment works is located 120 m south of the site. Please refer to Figure 1 for the approximate site location.

Figure 1 **Approximate Site Location**





1.4. OBJECTIVES

The objectives of the Biodiversity Metric are as follows:

- ✦ Identify percentage change in on-site habitat.
- ✦ Identify the number of habitat units lost/gained on-site; and
- ✦ Determine the need for a conservation offset payment or off-site habitat creation.



2. METHODOLOGY

2.1. BIODIVERSITY METRIC

Department for Environment, Food and Rural Affairs' (DEFRA) Statutory Biodiversity Metric was used to undertake the metric calculation. The metric was undertaken following guidance as detailed within the Statutory Biodiversity Metric: User Guide (DEFRA, 2025).

This metric was calculated by Phoebe Parry, Consultant Ecologist at E3P. Phoebe has attended internal training courses focusing on Biodiversity Net Gain and using the Biodiversity Metric Calculation Tool.

This metric was reviewed by Associate Director Celia Kenyon, BSc (Hons) MSc MEnvSc CEnv MCIEEM. Celia has undertaken a number of online training courses with CIEEM including 'Calculating and Using Biodiversity Units with Metric 2.0' and 'Biodiversity Net Gain Through Development'. Celia has also completed Condition Assessments on a number of sites across the UK and holds a Level 3 FISC.

2.2. ON-SITE HABITAT BASELINE DATA

The baseline data used to inform the condition assessment was collected on 17th December 2024 during the Preliminary Ecological Appraisal (report reference: 82-168-R1). An updated walkover was undertaken in April 2025 to confirm the baseline results in the optimal time of year (E3P 2025. Report reference 82-168-L2). The Statutory Biodiversity Metric Condition Assessment Sheets (DEFRA, 2025) were used to undertake the condition assessment. The methodology follows the Statutory Biodiversity Metric: User Guide (DEFRA, 2025). The tree sizes and conditions were taken from the Arboricultural Assessment (FPCR 2025). The Diameter at Breast Height (DBH) from the Tree Condition Assessment was used to determine tree category size, which was then input in the metric's tree helper to calculate the Root Protection Area (RPA).

On-site baseline habitats were measured off the UKHab Habitat Plan using QGIS and input into the metric. Please see Appendix I for the UKHab Habitat Plan.

2.3. RIVER CONDITION ASSESSMENT

2.3.1. MORPH SURVEY

A Modular River Physical (MoRPh) Survey was undertaken on watercourses WC1 and Pendleton Brook on the 17th December 2024 by Phoebe Parry, BSc (Hons) Consultant Ecologist at E3P with assistance from Zach Squire-Watt BSc (Hons), Msc, Consultant Ecologist at E3P. Zach holds a Level 3 FISC and is accredited in undertaking River Condition Assessments.

This was undertaken following the methodology detailed within 'The MoRPh Survey – Technical Reference Manual' (Modular River Survey, 2022).

The average river width of both watercourses was less than 5 m and as such five contiguous modules of 10 m in length were used during the MoRPh5 survey. A total length of 50 m was surveyed for each watercourse. The length of these has been included within the metric. Please see Appendix V for the survey area.



2.3.2. RIVER TYPE DESK STUDY

A desktop River Type Survey was undertaken, following guidance in 'A Guide to Assessing River Condition – Part of the Rivers and Streams Component of the Biodiversity Net Gain Metric' (Gurnell et al., 2020). This assessment assigns a watercourse one of 13 river types, based upon a homogenous 'reach' that contains the area of interest. Two alternative river types can be assigned to a river by the surveyor for those that are too large or deep for the riverbed to be adequately surveyed (Large River) or for too heavily modified to conform to one of the other river types (Navigable Rivers and Canals).

The start and end points of the reach are identified using satellite imagery and defined where one of the following is encountered:

- ✦ a major tributary (e.g., likely to contributing > 10% flow in the river/stream)
- ✦ a major artificial barrier (e.g., > 5m tall - likely to significantly change flow or sediment movements)
- ✦ a distinct and persistent change in planform (e.g., meandering to straight / slightly sinuous)

The results of the MoRPh5 survey and River Type Survey were then combined using Cartographer which generated a Final Condition Score for input into the Biodiversity Metric.

2.4. POST DEVELOPMENT HABITAT CREATION

The Framework Plan was used to measure the proposed area of developed land and the area available for biodiversity enhancements (FPCR 2025. DWG no. 9053-FPCR-XX-XX-DR-L-0001 P14).

A post-development plan has been produced to inform detailed landscape plans on optimal, yet realistic, biodiversity improvements based on E3P's biodiversity enhancements and recommendations. The areas of habitats have been measured from this plan using QGIS and input into the metric to calculate the net change in habitat units. The RPAs of proposed trees were calculated using the metric's tree helper. All newly planted trees are assumed to be small (<30cm diameter at breast height (DBH) when planted) in line with the guidance.

Due to drainage constraints, a minor loss in the existing lowland mixed deciduous woodland is unavoidable. This habitat is considered to be irreplaceable replanted ancient woodland. As such, this habitat requires bespoke compensation. As the woodland is replanted, no ancient or veteran trees were noted in this parcel. Tree removal results in the loss of a one large tree, one medium and two small trees in addition to some young understorey trees. This loss equates to an area of approximately 0.0123 ha. The woodland habitat has not been input into the metric as an irreplaceable habitat as this generates an error within the metric. Instead, the strategic significance of baseline habitat was input as 'Formally identified within local strategy'. The habitat lost will be compensated for to satisfy the trading rules in addition to a > 45% uplift in woodland units planted on site. Specifically, a total of 0.17 units of woodland will be lost, this is compensated for by the creation of 0.49 units of lowland mixed deciduous woodland on site. The woodland will be planted along the western boundary of the site and along Pendleton Brook.

Please see Appendix II for the Framework Plan and Appendix III for the Post-Development Plan.

2.5. LIMITATIONS

Some areas on the site are double counted, including root protection zones and areas of habitat, where overlap is shown. This means areas of habitat pre- and post-development do not total to the same area. However, this is accounted for within the Metric.



The initial PEA which informed the baseline data was undertaken in December 2024. Due seasonal winter die back; it is possible some vegetation may have been missed or misidentified. However, an updated site walkover was undertaken in April 2025 during the optimal growing season which confirmed the condition of the onsite habitats.



3. RESULTS

3.1. ON-SITE BASELINE CONDITION ASSESSMENT RESULTS

Table 1 shows the details of the habitat condition assessment used for input into the metric calculation tool.

Table 1 Habitat Baseline Condition Assessment Results

| HABITAT TYPE (UKHAB) | AREA/ LENGTH (HA/KM) | CONDITION ASSESSMENT | DESCRIPTION |
|---|----------------------|----------------------|--|
| Grassland – Modified Grassland | 7.0132 | Poor | Fails criterion 1 which is essential for achieving moderate condition as there are less than 6-8 species per m ² |
| Urban – Developed Land; Sealed Surface | 0.1775 | N/A | N/A |
| Woodland and Forest – Lowland Mixed Deciduous Woodland (Priority and irreplaceable habitat) | 0.0215 | Moderate | Scores 29 out of a possible 39. Please see Appendix VI for full woodland condition assessment. |
| Individual Trees – Rural Trees (x2 large) (T14 and T19)* | 0.0733 | Good | <p>Passes 5 of 6 condition assessment criteria:</p> <ul style="list-style-type: none"> ☑ The tree is mature ☑ The tree is a native species (or at least 70% within the block are native species). ☑ The tree canopy is predominantly continuous, with gaps in canopy cover making <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). ☑ Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark. ☑ More than 20% of the tree canopy area is oversailing vegetation beneath. |



| HABITAT TYPE (UKHAB) | AREA/ LENGTH (HA/KM) | CONDITION ASSESSMENT | DESCRIPTION |
|---|----------------------------|-------------------------|---|
| <p>Individual Trees – Rural Trees (x2 large) (T5 and T7)*</p> | <p>0.0733</p> | <p>Good</p> | <p>Passes 6 of 6 condition assessment criteria:</p> <ul style="list-style-type: none"> ✦ The tree is mature. ✦ The tree is a native species (or at least 70% within the block are native species). ✦ The tree canopy is predominantly continuous, with gaps in canopy cover making <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). ✦ Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark. ✦ More than 20% of the tree canopy area is oversailing vegetation beneath. ✦ 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. |
| <p>Individual Trees – Rural Trees (x1 small, x2 medium) (T25, T26, T27)*</p> | <p>0.0366</p> | <p>Good</p> | <p>Passes 5 of 6 condition assessment criteria:</p> <ul style="list-style-type: none"> ✦ The tree is mature. ✦ The tree is a native species (or at least 70% within the block are native species). ✦ The tree canopy is predominantly continuous, with gaps in canopy cover making <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). ✦ More than 20% of the tree canopy area is oversailing vegetation beneath. |



| HABITAT TYPE (UKHAB) | AREA/ LENGTH (HA/KM) | CONDITION ASSESSMENT | DESCRIPTION |
|-----------------------------------|----------------------|----------------------|---|
| | | | <ul style="list-style-type: none"> ✦ 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. |
| Species-Rich Native Hedgerow (H1) | 0.082 | Moderate | <p>Pass 6 of 8 condition assessment criteria (No more than 4 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✦ A1 - Over 1.5 m average height along length. ✦ A1 – Over 1.5 m average width along length ✦ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✦ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✦ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✦ D2 - Over 90% of the hedgerow is free of damage caused by human activities. |
| Species-Rich Native Hedgerow (H2) | 0.102 | Moderate | <p>Pass 6 of 8 condition assessment criteria (No more than 4 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✦ A1 - Over 1.5 m average height along length. ✦ A1 – Over 1.5 m average width along length ✦ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✦ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✦ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✦ D2 - Over 90% of the hedgerow is free of damage caused by human activities |



| HABITAT TYPE (UKHAB) | AREA/ LENGTH (HA/KM) | CONDITION ASSESSMENT | DESCRIPTION |
|--|----------------------|----------------------|--|
| Species-Rich Native Hedgerow (H3) | 0.280 | Moderate | <p>Pass 6 of 8 condition assessment criteria (No more than 4 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✘ A1 - Over 1.5 m average height along length. ✘ A1 – Over 1.5 m average width along length ✘ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✘ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✘ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✘ D2 - Over 90% of the hedgerow is free of damage caused by human activities |
| Species-Rich Native Hedgerow (H4) | 0.208 | Moderate | <p>Pass 6 of 8 condition assessment criteria (No more than 4 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✘ A1 - Over 1.5 m average height along length. ✘ A1 – Over 1.5 m average width along length ✘ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✘ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✘ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✘ D2 - Over 90% of the hedgerow is free of damage caused by human activities |
| Species-Rich Native Hedgerow with Trees (H5) | 0.277 | Moderate | <p>Pass 7 of 10 condition assessment criteria (No more than 5 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✘ A1 - Over 1.5 m average height along length. |



| HABITAT TYPE (UKHAB) | AREA/ LENGTH (HA/KM) | CONDITION ASSESSMENT | DESCRIPTION |
|---|----------------------------|-------------------------|--|
| | | | <ul style="list-style-type: none"> ✿ A1 – Over 1.5 m average width along length ✿ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✿ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✿ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✿ D2 - Over 90% of the hedgerow is free of damage caused by human activities ✿ E1 – More than one age class of tree is present |
| <p>Native Hedgerow with Trees (H6)</p> | <p>0.251</p> | <p>Moderate</p> | <p>Pass 6 of 10 condition assessment criteria (No more than 5 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✿ A1 - Over 1.5 m average height along length. ✿ A1 – Over 1.5 m average width along length ✿ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✿ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✿ D2 - Over 90% of the hedgerow is free of damage caused by human activities ✿ E1 – More than one age class of tree is present |

*Tree sizes and conditions taken from the Arboricultural Assessment (FPCR 2025).



3.2. ON-SITE HABITAT RETENTION

The majority of the existing trees on site and the hedgerows will be retained post development. Furthermore, a small area of woodland and existing developed land will also be retained. Table 2 outlines the areas of habitat to be retained.

Table 2 Habitats to be Retained

| HABITAT TYPE (UKHAB) | AREA/ LENGTH(HA/KM) | CONDITION ASSESSMENT |
|--|---------------------|----------------------|
| Urban – Developed Land; Sealed Surface | 0.1775 | N/A |
| Woodland and Forest – Lowland Mixed Deciduous Woodland | 0.0093 | Moderate |
| Individual trees – Rural Tree (T5 and T7) | 0.0733 | Good |
| Individual trees – Rural Tree (T25, T26, T27) | 0.0366 | Good |
| Species-Rich Native Hedgerow (H1) | 0.082 | Moderate |
| Species-Rich Native Hedgerow (H2) | 0.088 | Moderate |
| Species-Rich Native Hedgerow (H3) | 0.152 | Moderate |
| Species-Rich Native Hedgerow (H4) | 0.166 | Moderate |
| Species-Rich Native Hedgerow with Trees (H5) | 0.277 | Moderate |

3.3. HEDGEROW ENHANCEMENT CONDITION ASSESSMENT

The native hedgerow with trees on site can be enhanced to a species-rich hedgerow with trees to achieve additional hedgerow units. This can be achieved through ensuring there are at least four woody species per 30 m of hedgerow. Table 3 details the hedgerow enhancement.



Table 3 Hedgerow Enhancement Condition Assessment

| HABITAT TYPE (UKHAB) | LENGTH (KM) | TARGET CONDITION | DESCRIPTION/TARGET TIME TO CONDITION |
|---------------------------------|-------------|------------------|---|
| Native hedgerow with Trees (H6) | 0.251 | Moderate | <p>Native Hedgerow with Trees > Species-rich Native Hedgerow with Trees</p> <p>Pass 7 of 10 condition assessment criteria (No more than 4 failures in total and does not fail both criteria in more than one functional group).</p> <ul style="list-style-type: none"> ✳ A1 - Over 1.5 m average height along length. ✳ A1 – Over 1.5 m average width along length ✳ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✳ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✳ C2 - Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground. ✳ D1 - Over 90% of hedgerow is free of invasive non-native plant species. ✳ E1 – More than one age class of tree is present <p>Target time to condition will be 5 years.</p> |

3.4. ON-SITE HABITAT CREATION CONDITION ASSESSMENT

Habitats have been proposed within the site based on the Framework Plan (FPCR, 2025. DWG no. 9053-FPCR-XX-XX-DR-L-0001 P14) and E3P’s recommendations. Table 4 shows the details of the target condition assessment and total areas of habitat creation. It has been assumed that there will be no significant delay in the creation of the proposed habitat features, as such the delay in starting habitat creation has been set to zero.



Table 4 Habitat Creation Condition Assessment Results

| HABITAT TYPE (UKHAB) | AREA/LENGTH (HA/KM) | TARGET CONDITION | TIME TO TARGET CONDITION | DESCRIPTION |
|--|---------------------|------------------|--------------------------|---|
| Urban – Developed Land, Sealed Surface (Access Roads) | 0.4927 | N/A | N/A | N/A |
| Urban – Developed Land, Sealed Surface (Development Plots) | 1.9512 | N/A | N/A | N/A |
| Urban – Vegetated Gardens | 0.8362 | N/A | One year | N/A |
| Urban – Sustainable Drainage System | 0.1504 | Moderate | Three years | <p>Passes 3 of 5 condition assessment criteria:</p> <ul style="list-style-type: none"> ☑ The vegetation is comprised of plant species suited to wetland or riparian situations. ☑ Absence of invasive non-native plant species (listed on Schedule 9 of WCA1) and others which are to the detriment of native wildlife (using professional judgement). ☑ Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife. |
| Urban – Artificial Unvegetated; Unsealed Surface | 0.1757 | N/A | N/A | N/A |
| Grassland – Modified Grassland | 1.5908 | Poor | One year | <p>Fails criterion 1 which is essential for achieving moderate condition as there are less than 6-8 species per m²</p> |
| Grassland – Other Neutral Grassland | 1.15 | Moderate | Five Years | <p>Passes 4 out of 6 condition assessment criteria:</p> <ul style="list-style-type: none"> ☑ The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type |



| HABITAT TYPE (UKHAB) | AREA/LENGTH (HA/KM) | TARGET CONDITION | TIME TO TARGET CONDITION | DESCRIPTION |
|---|---------------------|------------------|--------------------------|---|
| | | | | <ul style="list-style-type: none"> ❖ Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%. ❖ 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 insects, birds and small mammals to live and breed. ❖ Combined cover of species indicative of suboptimal condition and physical damage accounts for less than 5% of total area. If any invasive non-native plant species are present, this criterion is automatically failed |
| Grassland – Traditional Orchards | 0.1368 | Moderate | 20 years | <p>Passes 4 of 8 condition assessment criteria:</p> <ul style="list-style-type: none"> ❖ Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and or scattered scrub growing between trees can be beneficial to biodiversity, however these occupy less than 10% of ground cover. ❖ Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy. ❖ Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland. |



| HABITAT TYPE (UKHAB) | AREA/LENGTH (HA/KM) | TARGET CONDITION | TIME TO TARGET CONDITION | DESCRIPTION |
|---|---------------------|------------------|--------------------------|--|
| | | | | <ul style="list-style-type: none"> There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 10% of ground cover. |
| Woodland and Forest – Lowland Mixed Deciduous Woodland | 0.3085 | Poor | 10 years | Scores 22 out of a possible 39. Please see Appendix VI for full woodland condition assessment. |
| Heathland and Scrub – Mixed Scrub | 0.2219 | Moderate | Five years | <p>Passes 3 of 5 condition assessment criteria</p> <ul style="list-style-type: none"> The parcel represents a good example of its habitat type, at least 80% of scrub is native, there are at least three native woody species, and no single species comprises more than 75% of the cover. There is an absence of invasive non-native plant species and species indicative of suboptimal condition make up less than 5% of ground cover. There are clearings, glades or rides present within the scrub, providing sheltered edges. |
| Individual Trees – Urban Trees (x40 small trees) | 0.1629 | Moderate | 27 years | <p>Passes 4 of 6 condition assessment criteria:</p> <ul style="list-style-type: none"> The tree is a native species (or at least 70% within the block are native species). The tree canopy is predominantly continuous, with gaps in canopy cover making <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). |



| HABITAT TYPE (UKHAB) | AREA/LENGTH (HA/KM) | TARGET CONDITION | TIME TO TARGET CONDITION | DESCRIPTION |
|---|---------------------|------------------|--------------------------|--|
| | | | | <ul style="list-style-type: none"> ✦ 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. ✦ More than 20% of the tree canopy area is oversailing vegetation beneath. |
| Urban – Bare Ground | 0.0123 | Poor | One year | Passes 1 of 3 condition assessment criteria: There is an absence of non native plant species. |
| Species-rich Native Hedgerow (H3 transplanted) | 0.116 | Moderate | Five years | <p>Pass 5 of 8 condition assessment criteria (No more than 4 failures in total and does not fail both attributes in more than one functional group).</p> <ul style="list-style-type: none"> ✦ A1 - Over 1.5 m average height along length. ✦ A1 – Over 1.5 m average width along length ✦ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✦ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✦ D1 - Over 90% of hedgerow is free of invasive non-native plant species. |
| Species-rich Native Hedgerow | 0.065 | Moderate | Five years | Pass 5 of 8 condition assessment criteria (No more than 4 failures in total and does not fail both attributes in more than one functional group). |



| HABITAT TYPE (UKHAB) | AREA/LENGTH (HA/KM) | TARGET CONDITION | TIME TO TARGET CONDITION | DESCRIPTION |
|----------------------|---------------------|------------------|--------------------------|---|
| | | | | <ul style="list-style-type: none"> ✿ A1 - Over 1.5 m average height along length. ✿ A1 – Over 1.5 m average width along length ✿ B1 - Gap between ground and base of canopy less than 0.5 m for over 90% of length. ✿ B2 - Gaps make up <10% of the total length, and no gaps >5m. ✿ D1 - Over 90% of hedgerow is free of invasive non-native plant species. |

3.5. BASELINE RIVER CONDITION ASSESSMENT RESULTS

WC1 was located on site running north to south. Pendleton Brook ran along the site’s southern boundary. Please see Table 5 for a summary of the watercourse.

Table 5 River Condition Assessment Results

| WATERCOURSE REFERENCE | HABITAT TYPE (UKHAB) | LENGTH (KM) | PRELIMINARY CONDITION SCORE | FINAL CONDITION CLASS | WATERCOURSE ENCROACHMENT | RIPARIAN ENCROACHMENT |
|------------------------|--------------------------|-------------|-----------------------------|-----------------------|--|---|
| WC1 | Other Rivers and Streams | 0.245 | 0.372 | Fairly Poor | No Encroachment Less than 5% of the bank length is an engineered bank revetment and there is no encroachment into the channel | Major/Major Managed agricultural land associated with the site formed over 25% of the riparian zone 4-10 m from both banks |
| Pendleton Brook | Other Rivers and Streams | 0.253 | 0.632 | Moderate | Major | Major/Major |



| WATERCOURSE REFERENCE | HABITAT TYPE (UKHAB) | LENGTH (KM) | PRELIMINARY CONDITION SCORE | FINAL CONDITION CLASS | WATERCOURSE ENCROACHMENT | RIPARIAN ENCROACHMENT |
|-----------------------|----------------------|-------------|-----------------------------|---|---|---|
| | | | | | Greater than 20% of the bank length is an engineered bank revetment | Managed agricultural land formed over 25% of the riparian zone 4-10 m from both banks |
| Ditch | Ditches | 0.005 | N/A | <p>Poor</p> <p>Passes 4 of 8 condition assessment criteria:</p> <ul style="list-style-type: none"> The ditch is of good water quality Less than 10% cover of algae Sufficient water levels are maintained There is an absence of non-native plant and animal species. | <p>Major</p> <p>The ditch is fed via a surface water outfall from a residential development</p> | <p>No Encroachment/ No Encroachment</p> <p>No riparian encroachment within 5 m of bank top.</p> |

3.6. WATERCOURSE RETENTION

A small section of WC1 will be retained post development as it runs adjacent to residential housing. As such, the riparian encroachment cannot be reduced. Furthermore, an access road over a preexisting bridge will be constructed in the north of the site and a preexisting bridge for a Public Right of Way over WC1 will be retained post development; as such, the encroachment in these areas will remain the same. An additional outfall is proposed to discharge into the on-site ditch; however, this will not affect the final condition of the ditch as it was assessed as poor condition with major watercourse encroachment. As such, the ditch has been input as retained.



Table 6 Watercourse Retention

| WATERCOURSE REFERENCE | HABITAT TYPE (UKHAB) | LENGTH(KM) | CONDITION ASSESSMENT |
|-----------------------|--------------------------|------------|----------------------|
| WC1 | Other Rivers and Streams | 0.039 | Fairly Poor |
| Ditch | Ditches | 0.005 | Poor |

3.7. WATERCOURSE ENHANCEMENT

There are opportunities for both WC1 and Pendleton Brook to be enhanced through the reduction in riparian encroachment. A 10 m naturally vegetated buffer should be created from the bank tops of the watercourses. Please see Table 7 for a summary of the watercourse creation. It has been assumed that there will be no significant delay in the creation of the proposed culvert, as such the delay in starting habitat creation has been set to zero.

Table 7 Watercourse Creation

| WATERCOURSE REFERENCE | HABITAT TYPE (UKHAB) | LENGTH (KM) | CONDITION | WATERCOURSE ENCROACHMENT | RIPARIAN ENCROACHMENT |
|------------------------|--------------------------|-------------|-------------|---|---|
| WC1 | Other Rivers and Streams | 0.206 | Fairly Poor | No Encroachment Less than 5% of the bank length is an engineered bank revetment and there is no encroachment into the channel. | No Encroachment/No Encroachment There will be no encroachment within 10 m of both bank tops. |
| Pendleton Brook | Other Rivers and Streams | 0.253 | Moderate | Major Greater than 20% of the bank length is an engineered bank revetment | No Encroachment/Major There will be no encroachment within 10 m of the north bank top but major encroachment remains on the southern bank top. |



3.8. STRATEGIC SIGNIFICANCE

The strategic significance of the majority of baseline habitats was defined as ‘Area not in local strategy, no local strategy’ as these habitats were not identified as Areas of Particular Importance within Lancashire’s Draft Local Nature Recovery Strategy (Lancashire County Council 2025). However, the lowland mixed deciduous woodland on site is identified as an Area of Particular Importance as it comprises ancient, replanted woodland and priority habitat. As such, this area was input into the metric as ‘Formally identified within local strategy’.

Additionally, the site did encompass several draft Potential Measures. These were as follows:

- ✿ Woodland W2.1 Establish riparian woodland and trees along the watercourses.
- ✿ Urban U2.3 – Wooded habitat creation and enhancement in urban open spaces such as orchards, street trees and hedgerows.
- ✿ Aquatic Wetlands AW4.4 – Bioengineering and nature-based solutions for moderation of water flows.

As such, the proposed individual trees, traditional orchard, woodland and hedgerow have been defined as ‘Formally identified in the local strategy’. The remaining proposed habitats do not align with the potential measure and as such were defined as ‘Area/compensation not in local strategy/ no local strategy’.

Furthermore, a draft potential measure was also associated with Pendleton brook. This measure related to the creation and restoration of the river habitat for juvenile salmon (*Salmo salar*). As the proposed watercourse enhancement only affects the riparian zone and does not fulfil the potential measure, Pendleton Brook was defined as ‘Area/compensation not in local strategy/ no local strategy’.

As the Lancashire Local Nature Recovery Strategy is in its draft stage at the time of writing, the strategic significance is subject to change.

3.9. BIODIVERSITY UNIT RESULT

The headline results of the metric show a total gain of +1.75 habitat units, +1.19 hedgerow units and +0.50 watercourse units as a result of development and E3P’s recommendations. Table 8 shows the headline results detailed within the Biodiversity Metric.

Table 8 **Headline Results**

| HEADLINE | CATEGORY | RESULT |
|------------------------------|-------------------|---------|
| Total Net Unit Change | Habitat Units | +1.75 |
| | Hedgerow Units | +1.19 |
| | Watercourse Units | +0.50 |
| Total Net % Change | Habitat Units | +10.62% |
| | Hedgerow Units | +11.10% |
| | Watercourse Units | +17.75% |

The trading rules of the metric would be satisfied in relation to habitat, hedgerow and watercourse units as habitats lost would be ‘traded up’.



4. CONCLUSIONS AND RECOMMENDATIONS

The proposed scheme and recommendations show a total gain of 1.75 habitat units (10.62%), 1.19 hedgerow units (11.10%) and 0.50 watercourse units (17.75%).

Based on the Development Framework Plan and the recommendations detailed in this report, the scheme can achieve a higher than 10% gain and satisfies the trading rules for habitat, hedgerow and watercourse units. This exceeds the mandatory 10% requirement outlined in the Environment Act 2021. As such, off site compensation will not be required.

As the current works have been undertaken on an illustrative plan to inform an outline application, detailed layouts and landscape plans were not produced to support the assessment. As such, the current works looks to demonstrate that a 10% net gain is achievable. When final plans are produced as part of the reserved matters application, the gains detailed within the current report may change. Although, the scheme is anticipated to reach the 10% requirement as a minimum.

To achieve a 10% gain in watercourse units, WC1 and Pendelton Brook could be enhanced through the reduction in riparian encroachment. A 10 m vegetated buffer should be created along the bank top of the watercourses.

The Biodiversity Metric does not take account for additional species enhancements within the site, and to further increase the site's value for wildlife the following could be provided:

- ✿ Creation of hibernacula (following guidance set out within Froglife, 2001) for common amphibians.
- ✿ Hedgehog houses may be installed to enhance the site for hedgehogs.
- ✿ Bat and bird boxes could be integrated within the residential units.



5. REFERENCES

- ✿ DEFRA. (2024). The Statutory Biodiversity Metric: User Guide
- ✿ DEFRA. (2024). Statutory Biodiversity Metric Condition Assessments
- ✿ E3P (2025). Preliminary Ecological Appraisal (report reference:82-168-R1).
- ✿ FPCR (2025) Arboricultural Assessment
- ✿ FPCR (2025). Framework Plan (DWG no. 9035-FPCR-XX-XX-DR-L-0001 P14)
- ✿ Lancashire County Council (2025). Draft Nature Recovery Strategy
- ✿ National Planning Policy Framework (2021). Ministry of Housing, Communities and Local Government.

END OF REPORT

APPENDIX I

UKHAB HABITAT PLAN





Key:

- Red Line Boundary
- Ditches
- Other rivers and streams
- Existing Bridge
- Existing tree
- Native hedgerow with trees
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Modified grassland

Notes

| | | | | |
|-------------------------------------|----------------|---------------------------|---------------------|-------------------|
| Issue: 1 | Revision: 1 | Date: 04/12/2025 | Drawn: PP | Authorised: CK |
| Client: Gladman Developments Ltd | | Job No. 82-168 | Date: 04/12/2025 | |
| | | Drawing No. 82-168-011 | Scale: 1:4000 | |

| | |
|--|--------------------------------------|
| Job title: Henthorn Road, Clitheroe | Drawing title: UKHab Habitat Plan |
|--|--------------------------------------|



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0 20 40 60 80 100 m

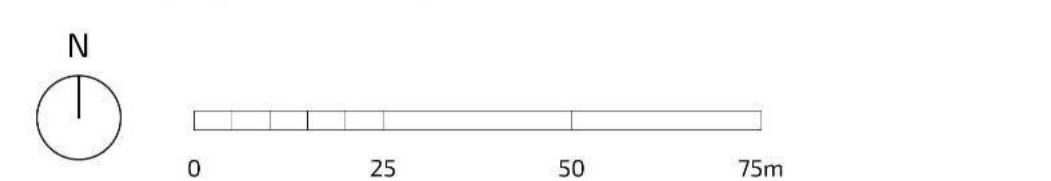
APPENDIX II FRAMEWORK PLAN





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Key

| | | |
|--|---|--------|
| | Site Boundary | 7.17ha |
| | Proposed residential development 115 dwellings @ 36dph | 3.13ha |

Green and Blue Infrastructure

| | |
|--|---|
| | Existing vegetation |
| | Proposed street trees along primary road |
| | Proposed vegetation |
| | Proposed open space around retained mature tree |
| | Existing watercourses |
| | Potential locations for attenuation features |

| | |
|--|---|
| | Proposed vehicular access |
| | Existing development |
| | Existing solar farm |
| | Proposed parking |
| | Proposed footpath |
| | Ribble Way |
| | PROW |
| | Informal footpath routes |
| | Proposed play |
| | Bridge over watercourse Details to be provided at the RM Stage |
| | Proposed location of pumping station |
| | Hedgerow to Henthorn Road to be removed and re-planted behind new footway |

| | | | |
|-----|----------|---|----------|
| P14 | 05/12/25 | Extension to the existing footpath note added | JED ANK |
| P13 | 03/12/25 | Proposed hedgerow added to Henthorn Road | JED ANK |
| P12 | 03/12/25 | Updated Redline | JED ANK |
| rev | date | description | dm / chk |

client
Gladman Developments Ltd.

project
Land off Henthorn Road, Clitheroe

| | | |
|---------------------------|-------------|-----|
| title | scale | |
| Framework Plan | 1:1000 @ A1 | |
| number | status | rev |
| 9053-FPCR-XX-XX-DR-L-0001 | 53 | P14 |

APPENDIX III POST DEVELOPMENT PLAN





- Key:**
- Red Line Boundary
 - Ditches
 - Enhanced watercourse
 - Retained watercourse
 - Proposed tree
 - Existing tree
 - Proposed species-rich native hedgerow
 - Enhanced hedgerow
 - Retained species-rich native hedgerow
 - Retained species-rich native hedgerow with trees
 - Artificial unvegetated, unsealed surface (Proposed)
 - Developed land; sealed surface (proposed)
 - Lowland mixed deciduous woodland (retained)
 - Mixed scrub (proposed)
 - Modified grassland (proposed)
 - Developed land; sealed surface (retained)
 - Other neutral grassland (proposed)
 - Lowland mixed deciduous woodland (proposed)
 - Sustainable drainage system (proposed)
 - Traditional orchards (proposed)
 - Residential development (proposed)

Notes

| | | | | |
|-------------------------------------|----------------|---------------------------|---------------------|-------------------|
| Issue: 1 | Revision: 1 | Date: 04/12/2025 | Drawn: PP | Authorised: CK |
| Client: Gladman Developments Ltd | | Job No. 82-168 | Date: 04/12/2025 | |
| | | Drawing No. 82-168-011 | Scale: 1:4000 | |

| | |
|--|---|
| Job title: Henthorn Road, Clitheroe | Drawing title: Post-Development Plan |
|--|---|

0 20 40 60 80 100 m

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APPENDIX IV RIVER CONDITION ASSESSMENT



TRIBUTARY OF PENDLETON BROOK (WC1)

| | | | |
|---------------------------------|----------------|------------------------------|------|
| GRID REFERENCE OF MORPH5 | SD 72967 40640 | RIVER SECTION LENGTH: | 50 m |
|---------------------------------|----------------|------------------------------|------|

RCA RIVER TYPE AND HABITAT DESCRIPTION

The average river width was less than 5 m. As such, module lengths of 10 m were used during the MoRPh5 survey, and a total length of 50 m was surveyed. The riparian zone was partly encroached by managed agricultural land on both banks.

| | | | |
|--------------------------------|----------------|----------------------------------|----------------|
| UPSTREAM GRID REFERENCE | SD 73012 40673 | DOWNSTREAM GRID REFERENCE | SD 72817 40517 |
|--------------------------------|----------------|----------------------------------|----------------|

PHOTOGRAPHS



RESULTS

| CONDITION ASSESSMENT CRITERIA | | RCA INDEX VALUES | NOTES/JUSTIFICATION |
|--------------------------------------|-----------------------|-------------------------|----------------------------|
| RCA INDEX ID | RCA INDEX NAME | | |

BANK TOP

| | | | |
|-----------|---|---|--|
| B1 | Bank top vegetation structure | 2 | The brook ran through a modified grassland field, comprising areas of bare ground, short and tall herbs. |
| B2 | Bank top tree feature richness | 0 | No fallen, leaning and large wood were located upon the bank tops. |
| B3 | Bank top water-related features | 0 | No bank-top water-related features were present along the surveyed area. |
| B4 | Bank top Invasive Non-Native Species (INNS) cover | 0 | No INNS were identified along the bank tops during the survey. |

| | | | |
|-----------------------|--|----|---|
| B5 | Bank top managed ground cover | -2 | The bank tops comprised heavily managed agricultural land along the whole survey area. |
| BANK FACE | | | |
| C1 | Bank face riparian vegetation structure | 1 | The bank faces were colonised by short and tall grasses. |
| C2 | Bank face tree feature richness | 0 | No J-shaped or leaning trees were identified along the banks of the brook. |
| C3 | Bank face natural bank profile extent | 2 | Some sections of the bottom two-thirds of the bank were artificially reinforced with large stones. |
| C4 | Bank face natural bank profile richness | 2 | The natural bank face profile varied from gentle and composite. |
| C5 | Bank face natural bank material richness | 1 | Bank face natural material was limited, predominantly comprising short and tall grasses. |
| C6 | Bank face bare sediment extent | 1 | Small areas of bare ground were present along both banks. |
| C7 | Bank face artificial bank profile extent | 0 | No reinforcement was present. |
| C8 | Bank face reinforcement extent | 0 | |
| C9 | Bank face reinforcement material | 0 | |
| C10 | Bank face INNS cover | 0 | No INNS were identified along the face of either bank during the survey. |
| CHANNEL MARGIN | | | |
| D1 | Channel margin aquatic vegetation extent | 0 | Emergent broadleaved, emergent linear-leaved and amphibious vegetation were not identified at the channel margin during the survey. |
| D2 | Channel margin aquatic morphotype richness | 0 | |
| D3 | Channel margin physical feature extent | 0 | No natural physical features were identified along the channel margin. |
| D4 | Channel margin physical feature-richness | 0 | |
| D5 | Channel margin artificial features | 0 | No artificial features were identified in the channel margin. |

CHANNEL BED

| | | | |
|------------|--|---|--|
| E1 | Channel aquatic morphotype richness | 0 | The riverbed was bare throughout. |
| E2 | Channel bed tree features richness | 0 | No trees were identified within the channel bed during the survey. |
| E3 | Channel bed hydraulic features richness | 0 | Water surface flow types entirely comprised smooth flow. |
| E4 | Channel bed natural features extent | 0 | No channel bed natural features were identified. |
| E5 | Channel bed natural features richness | 0 | |
| E6 | Channel bed material richness | 1 | Channel bed material varied, including sand cobble, gravel-pebble |
| E7 | Channel bed siltation | 0 | No channel bed siltation was identified during the survey. |
| E8 | Channel bed reinforcement extent | 0 | No channel; bed reinforcement was |
| E9 | Channel bed reinforcement materials severity | 0 | |
| E10 | Channel bed artificial features severity | 0 | No channel bed artificial features were identified. |
| E11 | Channel bed INNS extent | 0 | No INNS were identified within the channel bed during the survey. |
| E12 | Channel bed filamentous algae extent | 0 | No filamentous algae was identified during the survey. |

OVERVIEW

| | | | |
|------------------------------------|----------|---|---|
| PRELIMINARY CONDITION SCORE | 0.526 | RIVER TYPE | h - Straight/sinuous coarsest GP, average SA |
| RIVER SHAPE INDEX | 2.702 | IS THE RIVER CHANNEL OVERDEEP? | No. The river shape is greater than 2 which indicated the channel has not been artificially deepened. |
| FINAL CONDITION CLASS | Moderate | IS THE RCA FINAL CLASS MODIFIED? | No |

PENDLETON BROOK

| | | | |
|---------------------------------|----------------|------------------------------|------|
| GRID REFERENCE OF MORPH5 | SD 72925 40456 | RIVER SECTION LENGTH: | 50 m |
|---------------------------------|----------------|------------------------------|------|

RCA RIVER TYPE AND HABITAT DESCRIPTION

The average river width was less than 5 m. As such, module lengths of 10 m were used during the MoRPh5 survey, and a total length of 50 m was surveyed. The riparian zone was partly encroached by agricultural land on the northern bank. The southern bank and part of the northern bank were reinforced with large boulders.

| | | | |
|--------------------------------|----------------|----------------------------------|----------------|
| UPSTREAM GRID REFERENCE | SD 72796 40516 | DOWNSTREAM GRID REFERENCE | SD 73030 40488 |
|--------------------------------|----------------|----------------------------------|----------------|

PHOTOGRAPHS



RESULTS

| CONDITION ASSESSMENT CRITERIA | | RCA INDEX VALUES | NOTES/JUSTIFICATION |
|--------------------------------------|---------------------------------|-------------------------|--|
| RCA INDEX ID | RCA INDEX NAME | | |
| BANK TOP | | | |
| B1 | Bank top vegetation structure | 1 | The brook ran through along an agricultural field. Woodland was present along the southern bank. |
| B2 | Bank top tree feature richness | 0 | No fallen, leaning and large wood were located on the bank tops. |
| B3 | Bank top water-related features | 0 | No bank-top water-related features were present along the surveyed area. |

| | | | |
|-----------------------|---|----|---|
| B4 | Bank top Invasive Non-Native Species (INNS) cover | 0 | No INNS were identified along the bank tops during the survey. |
| B5 | Bank top managed ground cover | -2 | The bank tops were heavily managed along the majority of the survey area, predominantly comprising agricultural land along the northern bank top. |
| BANK FACE | | | |
| C1 | Bank face riparian vegetation structure | 1 | Where the banks did not comprise laid brick walls, the bank faces were colonised by mosses, short grasses, and tall grasses. |
| C2 | Bank face tree feature richness | 1 | Small numbers of J-shaped and leaning trees were identified along the banks of the brook. |
| C3 | Bank face natural bank profile extent | 3 | The bank faces comprised a naturalised, gentle profile. |
| C4 | Bank face natural bank profile richness | 1 | The natural bank face varied. |
| C5 | Bank face natural bank material richness | 0 | Bank face natural material was limited, predominantly comprising organic material. |
| C6 | Bank face bare sediment extent | 0 | Small areas of bare ground were present along both banks. |
| C7 | Bank face artificial bank profile extent | 0 | The riverbanks comprised no artificial reinforcement. |
| C8 | Bank face reinforcement extent | 0 | |
| C9 | Bank face reinforcement material | 0 | |
| C10 | Bank face INNS cover | 0 | No INNS were identified along the face of either banks during the survey. |
| CHANNEL MARGIN | | | |
| D1 | Channel margin aquatic | 1 | Emergent broadleaved, emergent linear-leaved |

| | | | |
|--------------------|--|---|--|
| | vegetation extent | | and amphibious vegetation were not identified at the channel margin during the survey. |
| D2 | Channel margin aquatic morphotype richness | 0 | |
| D3 | Channel margin physical feature extent | 1 | Some natural physical features were identified along the channel margin. |
| D4 | Channel margin physical feature-richness | 1 | |
| D5 | Channel margin artificial features | 0 | No artificial features were identified along the channel margin. |
| CHANNEL BED | | | |
| E1 | Channel aquatic morphotype richness | 0 | The riverbed was bare throughout. |
| E2 | Channel bed tree features richness | 0 | No trees were identified within the channel bed during the survey. |
| E3 | Channel bed hydraulic features richness | 0 | Water surface entirely comprised smooth flow. |
| E4 | Channel bed natural features extent | 0 | No channel bed natural features were identified. |
| E5 | Channel bed natural features richness | 0 | |
| E6 | Channel bed material richness | 2 | Channel bed material varied, including cobble, gravel, gravel-pebble, and traces of organic. |
| E7 | Channel bed siltation | 0 | No channel bed siltation was identified during the survey. |
| E8 | Channel bed reinforcement extent | 0 | No channel; bed reinforcement was identified |
| E9 | Channel bed reinforcement materials severity | 0 | |
| E10 | Channel bed artificial features severity | 0 | No channel bed artificial features were identified. |
| E11 | Channel bed INNS extent | 0 | No INNS were identified within the channel bed during the survey. |

| | | | |
|------------|--------------------------------------|---|--|
| E12 | Channel bed filamentous algae extent | 0 | No filamentous algae was identified during the survey. |
|------------|--------------------------------------|---|--|

OVERVIEW

| | | | |
|------------------------------------|----------|---|---|
| PRELIMINARY CONDITION SCORE | 0.478 | RIVER TYPE | F - Straight/sinuuous coarsest CO, average GP |
| RIVER SHAPE INDEX | 5.318 | IS THE RIVER CHANNEL OVERDEEP? | No. The river shape is greater than 2 which indicates the channel has not been artificially deepened. |
| FINAL CONDITION CLASS | Moderate | IS THE RCA FINAL CLASS MODIFIED? | No |

APPENDIX V

MORPH SURVEY AREA





- Key:**
- Red Line Boundary
 - Culvert
 - Other rivers and streams
 - ◆ MoRPH Points
 - MoRPH Survey Area

Notes

| | | | | |
|--|----------------|---------------------------|-------------------------------------|-------------------|
| Issue: 1 | Revision: 2 | Date: 10/12/2025 | Drawn: PP | Authorised: CK |
| Client: Gladman Developments Ltd | | Job No. 82-168 | Date: 10/12/2025 | |
| | | Drawing No. 82-168-008 | Scale: 1:1200 @ A4 | |
| Job title: Henthorn Road, Clitheroe | | | Drawing title: MoRPH Survey Plan | |

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APPENDIX VI WOODLAND CONDITION ASSESSMENT





| | INDICATOR | GOOD (3 POINTS) | MODERATE (2 POINTS) | POOR (1 POINT) | SCORE PER INDICATOR (EXISTING WOODLAND) | SCORE PER INDICATOR (PROPOSED WOODLAND) |
|---|--|---|---|---|---|---|
| 1 | Age Distribution Of Trees | Three age classes present | Two age classes present | One age class present | 2 | 1 |
| 2 | Wild, Domestic And Feral Herbivore Damage | No significant browsing damage evident in woodland ² | Evidence of significant browsing pressure is present in 40% or less of whole woodland | Evidence of significant browsing pressure is present in 40% or more of whole woodland | 3 | 3 |
| 3 | Invasive Plant Species | No invasive species present in woodland | Rhododendron or laurel not present, other invasive species < 10% cover | Rhododendron or laurel present, or other invasive species > 10% cover | 2 | 1 |



| INDICATOR | | GOOD (3 POINTS) | MODERATE (2 POINTS) | POOR (1 POINT) | SCORE PER INDICATOR (EXISTING WOODLAND) | SCORE PER INDICATOR (PROPOSED WOODLAND) |
|-----------|---|--|---|---|---|---|
| 4 | Number Of Native Tree Species | Five or more native tree or shrub species found across woodland parcel | Three to four native tree or shrub species found across woodland parcel | None to two native tree or shrub species across woodland parcel | 3 | 2 |
| 5 | Cover Of Native Tree And Shrub Species | > 80% of canopy trees and >80% of understory shrubs are native | 50-80% of canopy trees and 50-80% of understory shrubs are native | < 50% of canopy trees and <50% of understory shrubs are native | 3 | 3 |
| 6 | Open Space Within Woodland | 10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply | 21- 40% of woodland has areas of temporary open space | More than 40% of woodland has areas of temporary open space | 3 | 3 |



| INDICATOR | | GOOD (3 POINTS) | MODERATE (2 POINTS) | POOR (1 POINT) | SCORE PER INDICATOR (EXISTING WOODLAND) | SCORE PER INDICATOR (PROPOSED WOODLAND) |
|-----------|--|---|---|--|---|---|
| 7 | Woodland Regeneration⁵ | All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth | One or two classes only present in woodland | No classes or coppice regrowth present in woodland | 2 | 1 |
| 8 | Tree Health | Tree mortality less than 10%, no pests or diseases and no crown dieback | 11% to 25% mortality and/or crown dieback or low risk pest or disease present | Greater than 25% tree mortality and or any high-risk pest or disease present | 2 | 3 |
| 9 | Vegetation And Ground Flora | Ancient woodland flora indicators present | Recognisable NVC plant community present | No recognisable NVC community | 3 | 1 |



| INDICATOR | | GOOD (3 POINTS) | MODERATE (2 POINTS) | POOR (1 POINT) | SCORE PER INDICATOR (EXISTING WOODLAND) | SCORE PER INDICATOR (PROPOSED WOODLAND) |
|-----------|------------------------------------|--|--|--|---|---|
| 10 | Woodland Vertical Structure | Three or more storeys across all survey plots or a complex woodland | Two storeys across all survey plots | One or less storey across all survey plots | 1 | 1 |
| 11 | Veteran Trees | Two or more veteran trees per hectare | One veteran tree per hectare | No veteran trees present in woodland | 1 | 1 |
| 12 | Amount Of Deadwood | 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps | Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps | Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps | 2 | 1 |



| INDICATOR | | GOOD (3 POINTS) | MODERATE (2 POINTS) | POOR (1 POINT) | SCORE PER INDICATOR (EXISTING WOODLAND) | SCORE PER INDICATOR (PROPOSED WOODLAND) |
|--------------------------------------|----------------------|--|---|---|---|---|
| 13 | Woodland Disturbance | No nutrient enrichment or damaged ground evident | Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground | More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground | 2 | 1 |
| Total Score | | | | | 29 | 22 |
| Total score >32 (33 to 39) | | | | | | Good (3) |
| Total score 26 to 32 | | | | | | Moderate (2) |
| Total score <26 (13 to 25) | | | | | | Poor (1) |