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Biodiversity Net Gain Strategy

Client

Hallam Land Management Limited

Project

Land south of Longsight Road

Langho

Date

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FIGURES

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1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Hallam Land Management Ltd. It provides provisional Biodiversity Net Gain Calculations for a Site at Longsight Road, Langho (central grid reference: SD 702 344).

1.2 The report details the results of an UKHab Survey which was used to establish the preliminary pre-development biodiversity value of the Site. Due to the timings of the UKHab survey, further detailed botanical surveys will be undertaken at an appropriate time of year in order to confirm classification, the extent of habitats and detailed condition assessments of the habitats; which will allow for an accurate baseline value of the Site to be established The report goes on to provide an illustrative Biodiversity Net Gain Calculation in order to demonstrate that the delivery of a 10% net gain is feasible for the project.

Site Context

1.3 The Site is approximately 20ha in extent and supports mostly grassland habitats. Primarily other neutral grassland, with a modified grassland field to the west and a remnant area of lowland dry acid grassland near the east boundary. Two streams and a number of waterbodies were recorded on Site. In the north east corner is an area of Lowland mixed deciduous woodland, with two further areas, lesser in extent occurring along the central stream and also on the western boundary.

Development Proposals

1.4 Proposals are for an outline application for the construction of up to 300 residential units with associated roads, parking, train station parking area, drainage and areas of public open space.

2.0 LEGISLATIVE AND POLICY CONTEXT

The Environment Act

2.1 In England, biodiversity net gain is now required under statutory frameworks introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021). Under this framework, every grant of planning permission will be deemed to have been granted subject to a general biodiversity gain condition. This will require an objective for developments to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of all onsite habitats.

2.2 This is a pre-commencement condition requiring the provision of a Biodiversity Gain Plan to be submitted and approved before works can be commenced, but after full planning permission, or reserved matters has been granted.

2.3 In principle, the grant of planning permission is not within the scope of BNG, however it is important to consider as part of the consenting body's decision-making process how a scheme will able to demonstrate BNG after permission is granted. Therefore, this biodiversity net gain report presents the results of a Biodiversity Net Gain assessment that has been completed in order to demonstrate how the proposals will be compliant with the requirements of the Environment Act.

Biodiversity Net Gain Hierarchy

2.4 The statutory framework allows for the 10% biodiversity gain to be delivered through onsite biodiversity gains, registered offsite biodiversity gains or statutory biodiversity credits. However, as set out in Articles 37A and 37D of the Town and Country Planning (Development Management Procedure) (England) Order 2015, development must consider the biodiversity net gain hierarchy when designing scheme proposals. This sets out hierarchy of actions as follows:

- First, for all medium, high and very high distinctiveness habitats, the avoidance of any adverse effects.
- Where these can't be avoided, mitigating any adverse effects on medium, high and very high distinctiveness habitats.
- Then, for all onsite habitats (including low distinctiveness), adverse effects should be compensated by in accordance with the following hierarchy:
    - Prioritising the enhancement of existing habitats; then
    - Creation of onsite habitats;
    - Allocation of registered offsite unit gains; then
    - Purchase of biodiversity credits.

2.5 Proposals must demonstrate how the biodiversity hierarchy has been applied to or provide the reasons for any deviation. This biodiversity net gain hierarchy is distinct from the mitigation hierarchy set out in paragraph 193(a) of the National Planning Policy Framework (2024) which is addressed in the accompanying Ecological Impact Assessment where relevant.

Exemptions

2.6 There are a number of circumstances where a Site will be exempt from biodiversity net gain including:

- Development impacting habitat of an area below a 'de minimis' threshold of 25m2, or 5m for linear habitats.
- Householder applications (as defined within article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015).
- Self-build and custom-build applications (no more than 9 dwellings, site no larger than 0.5 ha and consists exclusively of self-build/ custom dwellings).
- Biodiversity gain sites (where habitats are being enhanced for wildlife only).
- Previously developed land with a baseline score of zero (exempted via the metric).

2.7 The proposals for the Site do not fall under any of the above criteria and this report has therefore been prepared in order to aid the Planning Authority in their decision-making process.

3.0 NATIONAL PLANNING POLICY FRAMEWORK (2024)

3.1 The revised NPPF (2024) seeks to ensure that the planning system contributes to and enhances the natural and local environment, protects and enhances biodiversity and geodiversity by:

"187. d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and

incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;

192. b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

Local Policy

3.2 The Ribble Valley Borough Council Adopted Core Strategy[1] (adopted December 2014) does not include any policies directly related to Biodiversity Net Gain. However, key statement EN4: BIODIVERSITY AND GEODIVERSITY does state that negative impacts on biodiversity through development proposals should be avoided and that there should, as a principle be a net enhancement of biodiversity.

4.0 METHODOLGY

4.1 The survey was undertaken on 22nd October 2024 by a suitably experienced ecologist (Botanical Society of Britain and Ireland's (BSBI) Field Identification Skills Competency (FISC) Level 5). Baseline habitats were identified and mapped by broadly following the UKHab Classification system, with minor departures from this methodology to allow for compatibility with the Defra metric where applicable. The survey comprised a walkover of the site, mapping the principal habitat types present and identifying a representative species list for each habitat along with additional notes regarding the current condition as per the Statutory Metric User Guide.

4.2 Vascular plant nomenclature followed Stace (2019)[2] and assessment of abundance for plants was made using the DAFOR scale:

- D - Dominant
- A - Abundant
- F - Frequent
- O - Occasional
- R - Rare
- L - Locally (e.g. LF = Locally Frequent or LA = Locally Abundant)

4.3 During the survey hedgerows were also assessed against the Wildlife and Landscape criteria contained within Statutory Instrument No: 1160 – The Hedgerow Regulations 1997 to determine whether they qualified as 'Important Hedgerows' under the Regulations.

4.4 Where species are referred to in the text, the common name for the species is used, with the associated scientific name provided within the botanical species lists for the Site in Appendix A.

Habitat Condition Assessments

4.5 Defra has developed a metric based on evaluating each individual habitat's value within the Statutory Biodiversity Metric. All habitats/habitat compartments on site have been assessed using the technical guidance document provided by Defra for use with their biodiversity metric.

1 https://www.ribblevalley.gov.uk/downloads/file/1700/adopted-core-strategy
2 Stace, C (2019) New Flora of the British Isles. 4th edn. C&M Floristics

The guidance provides a list of criteria for a range of broad habitat types which are used to determine whether habitat fall into a 'poor', 'fairly poor', 'moderate', 'fairly good' or 'good' condition score.

River Condition Assessment

4.6 The River Condition Assessment (RCA) field survey was completed by Francesca Sykes (Ecologist) and Daisy Smith (Senior Ecologist), both with over 4 years' experience in ecological consultancy, and accredited in conducting River Condition Assessment survey using MoRPh methodology.

4.7 Two field surveys were conducted. The first was undertaken on 29th October 2024, working downstream during medium flow with weather conditions as 60% cloud cover, gusts of up to 16mph, and a max temperature between 13°C and 14°C. The second was undertaken on 21st November 2024, working downstream in low flow with weather conditions as 20% cloud cover, gusts of up to 17mph, and a max temperature between 3°C and 6°C.

4.8 Two watercourses were identified on Site, both tributaries of Bushburn Brook (R1 & R2 accordingly), with watercourse R2 passing through the centre of the Site flowing south to north and tributary B passing along the eastern Site boundary and then on the western edge of Green Nook Wood. Both tributaries pass under Longsight Road (A59) via culverts before joining a watercourse to the north. R2 measured less than 5m wide with a survey length of approximately 360m within the redline boundary. This resulted in 2 sub-reaches being surveyed (sub-reach 1 and 2) for the watercourse, comprised of 5 x 10m modules (MoRPh5), undertaken from the right bank. R1 also measured less than 5m wide with a survey length of approximately 337m within the redline boundary. This resulted in 2 sub-reaches being surveyed (sub-reach 1 and 2) for the watercourse, comprised of 5 x 10m modules (MoRPh5), undertaken from a mix of both banks.

4.9 R1 was identified as 'other river and stream' type F (straight/sinuous), a non-priority river type. R2 was identified as 'other river and stream' type C (straight/sinuous), a non-priority river type.

Biodiversity Net Gain Calculation

4.10 The Statutory Biodiversity Metric, published in February 2024, has been used for this scheme. The Statutory Metric is an MS Excel spreadsheet that is used to quantify the predicted net-change in biodiversity value ("biodiversity units") of a proposed development site before and after development. It treats the area-based habitats and linear features such as hedgerows and lines of trees separately, and is based on pre-determined values, along with published written guidance set by a Natural England-led team of experts.

4.11 The aim of biodiversity offsetting is to compensate for significant adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken, according to the mitigation hierarchy as required by the NPPF.

4.12 To facilitate this, the Site has been mapped and digitised using the Statutory Biodiversity Metric QGIS Template, with the existing habitats identified and areas automatically generated. In accordance with the Statutory Biodiversity Metric User Guide, habitats have been defined under UKHab.

4.13 On Site post-development habitats were based on the submitted Illustrative Masterplan (Drawing number 0104 -D - Illustrative Masterplan). The post development habitat types and

condition were assigned in line with the recommend enhancement measures in these areas. Proposed habitats were mapped and digitised into the latest Biodiversity Metric QGIS Template to generate areas for each of the habitats proposed for enhancement.

4.14 These pre- and post-development habitat areas were then inputted into the Statutory Biodiversity Metric Calculation tool. The metric then provides a habitat distinctiveness score for each of the baseline and proposed habitats which are pre-assigned scores based on the habitat type.

4.15 The strategic significance of the habitats was also assessed for both the pre- and post-development habitats based on the location of the site, its proximity to existing areas of biodiversity interest and its setting within wider habitat corridors.

4.16 The metric then assigns a range of pre-assigned factors to each of the proposed habitats. These have been advised by subject knowledge experts and are universal multipliers generated by the metric itself for the following variables relevant to habitat creation, enhancement or restoration proposals:

- Difficultly of creating or restoring/enhancing a habitat: This pre-assigned score is based on how difficult a particular habitat type is to create or restore/enhance.
- Temporal risk: this is the 'time to target condition' for any particular habitat and determines how long a particular habitat type is likely to take to reach the condition score that the desired condition score assigned to it.
- Spatial risk: this score is based on the distance between the site of habitat loss and any habitats creation or enhancement proposals at any offsite offsetting solutions.

4.17 Full details of the calculation methodology are provided in Statutory Biodiversity Metric – User Guide[3].

Habitat Trading Rules

4.18 Within the metric a set of trading rules are applied, the aim of these rules is to ensure that any loss of habitat is replaced on a 'like for like' or 'like for better' distinctiveness basis.

4.19 The trading summary draws data from across the metric and presents the data in a standard way to determine whether or not the trading principles set out in Rule 3 of the user guide have been adhered to. This trading summary avoids the need to track the changes in habitat type and condition on an individual parcel by parcel basis, which is not practical, particularly on larger sites. Table 1, below summarises the trading rule requirements for each distinctiveness band.

Table 1: Habitat Trading Rules and associated habitat compensation requirements

Baseline Habitat Distinctiveness	Distinctiveness of Replacement Habitat Required by Trading Rules
Very High	Losses of these habitats are not able to be assessed within the metric. A bespoke assessment and compensation package must be agreed.
High	These habitats must be replaced on a like-for-like basis with the same habitat type as impacted by the scheme.

[3] https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides

Baseline Habitat Distinctiveness	Distinctiveness of Replacement Habitat Required by Trading Rules
Medium	These habitat types must be replaced with units from the same broad habitat type, or any habitat from a higher distinctiveness band.
Low	These habitat types can be replaced with any other low distinctiveness habitat type, or any habitat from a high distinctiveness band.
Very Low	No replacement is required for these land uses.

Limitations

4.20 The Baseline UKHab Survey was undertaken outside the optimum survey period. However, the surveyor who carried out the survey had previously surveyed the Site, the survey was undertaken prior to any significant frosts and the majority of the grasslands had a good level of growth. This allowed for the robust mapping and classification of the habitats present within the Site as well as an informed preliminary condition assessment to be undertaken. Nevertheless, detailed botanical surveys will be undertaken at an appropriate time of year in order to confirm classification, the extent of habitats and detailed condition assessments of the habitats; which will allow for an accurate baseline value of the Site to be established.

4.21 The UKHab habitat baseline map has been reproduced from detailed field notes and informed by aerial imagery, OS mapping and site maps provided by the client. The accuracy of this figure is therefore ultimately guided by the accuracy of these sources and can only be relied upon to a certain degree of resolution.

4.22 No further limitations specific to this report influenced this assessment.

5.0 RESULTS

Strategic Significance

5.1 There are three levels of strategic significance:

- Highly strategically significant ('formally identified in local strategy') – pre and post development habitats are subject to a 15% multiplier;
- Medium strategic significance (Location Ecologically Desirable but not in Local strategy) - pre and post development habitats are subject to a 10% multiplier; and,
- Low strategic significance (Area not in local strategy) – No multiplier.

5.2 The Local Nature Recovery Strategy (LNRS) for the area, which is the relevant strategic policy which would define strategic significance, has been published in draft. The draft LNRS Habitat Map[4] includes the central and eastern section of the Site under 'Areas that could become important, which are regarded as opportunity areas for potential measures that could be undertaken. Much of the Site is mapped under the woodland broad habitat opportunity layer, which states as priories:

- *Retention and appropriate maintenance of aged, ancient and veteran trees to maximise their lifespan and biodiversity value*

[4] https://experience.arcgis.com/experience/92a5cd8951b84c65b9cd842f5ffc2333/

- *Restore natural processes and enhance the biodiversity value of existing wooded habitats, prioritising ancient and long established woodlands, temperate rainforest, plantations on Ancient Woodland Sites (PAWS) and wet woodland.*

5.3 The Site is also mapped under the Urban broad habitat opportunity layer which states: *Wooded habitat creation and enhancement in urban open spaces such as orchards, street trees, micro-woods, urban woodland and hedgerows.*

5.4 Informed by the above the calculations have been undertaken on the assumption that the following habitat interventions would be of high strategic significance:

- Enhancement of existing woodland habitats;
- The planting of urban trees.

5.5 All other habitat creation and enhancement measures are or low strategic significance.

Baseline Habitats

5.6 Each habitat within the Site have been described below using their corresponding UKHab classification, with habitats ordered by their distinctiveness. A summary of the assessed condition of the habitat (where applicable) is provided within the table, with the full condition assessment tables provided in Appendix B,

5.7 Appendix A includes the botanical species lists of the habitats recorded. Figure 1 shows the baseline habitats recorded during the survey, together with the parcel reference codes and Figure 4 shows the Baseline Condition & Distinctiveness Plan.

Ref	Habitat type	Condition	Description	Photo
High Distinctiveness				
W1	Lowland mixed deciduous woodland	Poor	Woodland W1, known locally as Green Nook Wood, was recorded to the north-east of the Site. Pedunculate Oak was abundant amongst the canopy sycamore and beech (including a veteran) occasional associates. These canopy trees formed a high single storey canopy, lacking any significant understorey with only hazel recorded at occasional or above. The ground flora would be broadly characterised as NVC community W11 *Quercus petraea - Betula pubescens - Oxalis acetosella* woodland) with an abundance of common bent, frequent cock's foot and a limited number of herbaceous species such as wood speedwell, wood avens and broad buckler-fern recorded occasionally. However, the woodland was open to grazing stock, with evidence of grazing pressure negatively impacting the woodland. Further north alder was more prominent within the canopy and tufted hair-grass and creeping buttercup become locally frequent along with marsh thistle and Reed canary-grass at lower frequencies, indicative of damper conditions. The banks of watercourse R1, which runs along the woodlands western edge, featured a more diverse assemblage of plants, including yellow pimpernel, common figwort, remote sedge and lady-fern. The stream side vegetation and the alder dominated areas were characteristic of NVC community W7 *Alnus glutinosa - Fraxinus excelsior - Lysimachia nemorum* woodland. The woodland pond P1 was recorded in this area. The invasive species Himalayan Balsam was recorded locally along the eastern and northern extent of the woodland. Due to the age and native status of the canopy trees, together with the typical associated woodland ground flora, this woodland was classified as lowland mixed deciduous woodland, a priority habitat type. The woodland was assessed as being in poor condition, scoring poorly on herbivore damage, structure and regeneration.	
W2	Lowland mixed deciduous woodland	Poor	Woodland W2 was an additional area of lowland mixed deciduous woodland, recorded in a mosaic with species rich neutral grassland, and scattered Trees along the steep-sided valley of Watercourse R2 which runs through the centre of the site. Pedunculate oak was abundant within the canopy with ash and alder at lower frequencies. Hawthorn and holly were occasional amongst the scattered scrub understorey. On the slope tops the ground flora displayed an acidic influence, characterised by common bent, with the herbaceous species such as foxglove and tormentil scattered throughout. In the sheltered valley sides, a cooler, damper influence was noted, evidenced by an increased incidence of the ferns broad buckler-fern, male-fern and hart's-tongue. The community was assessed as being in poor condition scoring badly on structure, herbivore damage, invasive species and regeneration.	

Ref	Habitat type	Condition	Description	Photo
W3	Lowland mixed deciduous woodland	Moderate	Woodland W3 was recorded along the steep banks of a ditch to the western extent of the Site. Pedunculate oak, sycamore and ash were co-dominant within the canopy. A healthy understorey was noted with frequent hazel and oak saplings recorded. The ground flora featured a reasonable diversity of species characteristic of old woodlands, with wood melick, dog's mercury , broad buckler-fern and Hairy-brome all recorded. Himalayan balsam was locally frequent at the slope bottom. The woodland was assessed as being in moderate condition due to the improved structure and regeneration, but the community still scored poorly in relation to invasive species and the amount of deadwood.	
Medium Distinctiveness				
A1	Other lowland dry acid grassland	Good	To the east of the Site, along a small bank adjacent to watercourse R1, an acid grassland community was recorded. Common bent, Yorkshire-fog and red fescue were common within the sward, with crested dog's-tail and sweet vernal grass noted as rarities. Ribwort plantain was a prominent herb species within the community along with a number of acidic indicators such as frequent tormentil, locally frequent betony. A previous survey at the Site had identified Devil's-bit scabious in this area but the species was not noted in 2024. The habitat was provisionally classified as g1a6 other lowland dry acid grassland as it was provisionally assessed as not meeting the qualifying criteria for g1a Lowland dry acid grassland under UKHab due to the lack of indictor species. Further detailed botanical survey will be required to confirm this classification. The habitat was assessed as being in good condition, as it was considered that acid indicators and general semi-improved grassland indicators were well represented within the community.	
ONG1	Other neutral grassland	Good	Other Neutral Grassland Community ONG1 was recorded within the eastern field compartment and comprised a moderately species rich example of g3c6 *Lolium - Cynosurus* grassland, with localised areas of flushing similar to community ONG2 described below. The sward comprised an intimate mixture of common bent, Yorkshire-fog, red fescue, perennial rye-grass, meadow foxtail, crested dog's-tail, cock's-foot and hairy sedge. The undesirable species, creeping buttercup, common ragwort, creeping thistle and broad-leaved dock were well represented throughout. The community featured a number of lowland meadow indicator species (occasional great burnet and rare tormentil, meadow vetchling and greater bird's-foot trefoil), but overall, the community was assessed as not meeting the qualifying criteria for g3a due to the overall species diversity and cover of wildflowers. In addition to the above, the neutral grassland indicators ribwort plantain (frequent), common sorrel (occasional), red clover (rare) and meadow buttercup (rare) were also noted. As a result of the frequency and cover of neutral grassland indicators and the presence of a number of lowland meadow indicators, the community was assessed as passing	

Ref	Habitat type	Condition	Description	Photo
			criterion A. Overall the community was assessed as being in good condition, failing only on the coverage of undesirable species. Further detailed botanical survey will be required to confirm this classification and condition.	
ONG1A	Other neutral grassland	Poor	Community ONG1a, was similar to the community ONG1, described above, but lacked the coverage of neutral grassland indicators and was notably less species rich. As a result, the community was assessed as failing criterion A and was assessed as being in poor condition. Further detailed botanical survey will be required to confirm this classification and condition.	
ONG2	Other neutral grassland	Good	Community ONG2, recorded centrally within the eastern field comprised a taller wet grassland community, with a sward characterised by an increased incidence of rushes, including hard rush (frequent), soft-rush (occasional), compact rush (occasional) and sharp-flowered rush (locally frequent). These rushes were growing together with frequent creeping bent and hairy sedge, occasional tufted hair-grass, meadow foxtail and red fescue. The following lowland meadow indicator species were noted: Greater bird's-foot-trefoil was frequent, great burnet was occasional to frequent, tormentil, meadow vetchling and sneezewort were rare to occasional, with common knapweed and betony rare. However, given the tussocky nature of the grassland, the community was provisionally assessed as containing less than 15 species per m^2 and containing less than 30% wildflowers and as such would not meet the qualifying criteria for g3a. Similarly, the community was not considered to be representative of the priority habitat type f2b purple moor grass and rush pastures, as the community lacked the species richness and overall diversity of wetland indicator species this community is characterised by. As a result, the community was classified as a species rich 'good example' of the g3c8 *Holcus-Juncus* rush pasture and was assessed as being in good condition accordingly. Further detailed botanical survey will be required to confirm this classification and condition.	No photo available

Ref	Habitat type	Condition	Description	Photo
ONG3	Other neutral grassland	Moderate	Community ONG3 was recorded to the north of the Site along the A59, to the west of watercourse R2. The sward was characterised by frequent creeping bent and red fescue, along with occasional meadow foxtail, common bent, Yorkshire fog, timothy and tufted hair-grass. Herbaceous cover featured frequent ribwort plantain, locally frequent silverweed, with occasional red bartsia, common sorrel and tormentil. The community was considered to be a moderately species rich example of g3c6 *Lolium - Cynosurus* grassland with sufficient neutral indicators to pass criterion A. Provisionally, the community was assessed as having less than 10 species per m^2 and as a result was recorded in moderate condition. Further detailed botanical survey will be required to confirm this classification and condition.	
ONG4	Other neutral grassland	Poor	Recorded to the south of ONG3, with a similar species composition to that community, but with reduced diversity and cover of the neutral grassland indicator species. As a result, ONG4 was assessed as being in poor condition. Further detailed botanical survey will be required to confirm this classification and condition.	
ONG5	Other neutral grassland	Poor	Recorded to the west of ONG4 this community featured an intimate mixture of grasses, with creeping bent and Yorkshire-fog the most abundant. The only neutral grassland indicators noted were occasional to frequent ribwort plantain with occasional meadow buttercup and common sorrel. As such, it was judged to fail criterion A and was assessed as being in poor condition. Further detailed botanical survey will be required to confirm this classification and condition.	

Ref	Habitat type	Condition	Description	Photo
ONG6	Other neutral grassland	Poor	A small unmanaged g3c5 *Arrhenatherum* grassland community recorded to the north-west of the Site. The tall sward was characterised by the broad-leaved grasses, cock's-foot, false oat-grass, Yorkshire fog and creeping bent. Herbaceous diversity was low, limited to occasional common sorrel and meadow buttercup. Ruderal species were common including locally frequent creeping thistle, great willowherb and occasional common hogweed. Bramble was encroaching locally at the margins and the invasive species Himalayan balsam was locally frequent on the margins of the ditch which runs through the habitat to the west. The community was assessed as being in poor condition, failing on the lack of neutral indicators and high coverage of undesirable species. Further detailed botanical survey will be required to confirm this classification and condition.	
ONG7	Other neutral grassland	Poor	The central field in the site, contained a community of g3c6 *Lolium -Cynosurus* grassland on a shallow north facing slope. Common bent was abundant in the sward, growing together with occasional Yorkshire-fog, cock's-foot, creeping bent, timothy and red fescue. Creeping buttercup, ribwort plantain were the most frequent forbs noted, with common sorrel red bartsia and meadow buttercup recorded at lower frequencies. The community was not considered to contain sufficient neutral indicators to pass criterion A. Provisionally, the community was assessed as having less than 10 species per m^2 and as a result was recorded in poor condition. Further detailed botanical survey will be required to confirm this classification and condition.	
ONG8	Other neutral grassland	Good	Community ONG8 was a moderately species rich neutral grassland community recorded from north to south along the length of the western edge of watercourse R2. The sward was dominated by fine leaved grasses, particularly common bent, crested dog's-tail and red fescue. The following lowland meadow indicator species were noted: Greater bird's-foot-trefoil was frequent, great burnet was frequent to occasional, glaucous sedge was locally frequent, with common knapweed, tormentil, great burnet and sneezewort occasional. However, the community was provisionally assessed as containing less than 15 species per m^2 and containing less than 30% wildflowers and as such would not meet the qualifying criteria for g3a. In addition to the above, the neutral grassland indicators ribwort plantain (frequent), common sorrel (occasional), and meadow buttercup (occasional) were also noted. As a result of the frequency and cover of neutral grassland and lowland meadow indicators, the community was assessed as passing criterion A. Overall the community was assessed as being in good condition, failing only on the local presence of the invasive specie Himalayan Balsam to the south of the Site. Further detailed botanical survey will be required to confirm this classification and condition.	

Ref	Habitat type	Condition	Description	Photo
ONG9	Other neutral grassland	Poor	Parcel ONG9, recorded to the west of the Site featured a short sward of abundant perennial rye-grass, with frequent Yorkshire-fog and creeping bent and occasional red fescue. Dandelion was the most frequent forb noted, with common sorrel, creeping buttercup and meadow buttercup being occasional and ribwort plantain and common mouse-ear rare. The community was considered to be borderline between g4 modified grassland and g3c other neutral grassland, with a classification of g3c made on the basis of the overall species richness and the frequency of a number of neutral grassland indicators. Further detailed botanical survey will be required to confirm the classification & condition of this habitat.	
P1-P6	Ponds (non-priority habitat)	Moderate	Six ponds were recorded around the Site. P1 – Recorded on the northern boundary within woodland W1 and mapped as a constituent part of the woodland habitats. A heavily vegetated pond with abundant creeping buttercup and locally frequent Himalayan balsam. P2 – A seasonally wet pond dominated by soft-rush present within community ONG4 P3 – A heavily vegetated pond in a hollow within ONG3, featuring frequent floating sweet-grass and creeping buttercup. P4 – A shallow hollow on the southern boundary, featuring shallow water heavily vegetated with floating sweet-grass and creeping buttercup. P5 – A seasonally wet pond within a hollow to the southern extent of ONG7. Creeping buttercup, broad-leaved dock and creeping bent were all locally frequent P6 – A shallow heavily vegetated pond on the eastern margin of grassland field ONG9. Featuring dominant creeping bent. All ponds within the site were assessed as being in moderate condition, scoring well on water quality and the lack of artificial drains.	
SC1	Hawthorn scrub	Poor	Sc1, recorded on the Sites eastern boundary was an open even aged scrub community featuring frequent hawthorn, along with holly and hazel. The ground flora was dominated by ruderal species, particularly common nettle and creeping thistle, with the invasive species Himalayan balsam locally frequent. The scrub was assessed as being in poor condition, failing all criteria.	

Ref	Habitat type	Condition	Description	Photo
SC2	Blackthorn scrub	Poor	An area of continuous scrub was recorded on the western boundary of the Site between hedgerows H4 and H5. Blackthorn was abundant with hawthorn and a alder standard. The community was assessed as being in poor condition, failing on the even aged nature of the habitat, the dominance of a single species and lack of glades.	
	Individual trees	Good	Mature freestanding trees, particularly of pedunculate oak, were a prominent feature of the Site. A total of 37 freestanding trees in good condition were recorded within the Site, of the following size categories: • Four Very large • 29 Large • Four medium The majority of the trees were pedunculate oak, with the exception of T1, T42, T43 and T44, which were alders; T63 which was a sycamore and T69 which was an ash. Two individual trees (T67 & T72) have been mapped on figure 1, but are excluded from the metric calculations as they were recorded within retained linear features.	
	Individual trees	Moderate	Two additional medium sized trees, T10 and T71 were recorded in moderate condition.	
Low Distinctiveness				
M1	Modified grassland	Poor	A small field to the west of the Site, contained species poor modified grassland. Perennial rye-grass was dominant within the sward, growing with occasional Yorkshire fog. Creeping buttercup and dandelion were the most frequently recorded forbs, with meadow buttercup, common sorrel and cuckooflower noted at low frequencies. The Community was provisionally assessed as containing less than 6 species per m^2 and as a result was recorded in poor condition.	

Ref	Habitat type	Condition	Description	Photo
	Tall forbs	Poor	An area of tall forbs were recorded to the south of ONG5. Common nettle was locally abundant, growing with frequent creeping thistle and Broad-leaved dock.	
Linear Habitats				
H3, H5	Species-rich native hedgerow	Moderate - Good	Two species rich hedgerows were recorded on the western boundary of the Site. H3 was characterised by hawthorn with occasional hazel and elder and featured a single pedunculate oak standard. The hedgerow was assessed as being on moderate condition H5 featured frequent hawthorn, holly and hazel, with a single mature oak standard and was assessed as being in good condition.	
H1, H2, H4	Native hedgerow	Moderate	Three species poor hedgerows were recorded within the Site H1 was recorded on the Sites northern boundary and was dominated by hawthorn, with occasional elder. Himalayan balsam was present to the east. H2 was a boundary hedgerow to an adjacent property at the western extent, again dominated by hawthorn. H4 which connected woodland W3 to scrub Sc2, featured blackthorn and hawthorn, along with a mature ash tree. All three hedgerows were assessed as being in moderate condition.	

Ref	Habitat type	Condition	Description	Photo
LoT 1	Ecologically valuable line of trees	Moderate	A mature row of trees was recorded on the southern extent of the western boundary. The tree line featured two prominent large pedunculate oak trees, together with a further 3 medium sized oaks and a medium ash tree. A number of outgrown hazel stools and large holly bushes were also present. The tree line was assessed as being in moderate condition, failing only on the lack of an undisturbed vegetated strip on the offsite roadside.	
Watercourses				
R1	Other Rivers and streams	Fairly Poor and Poor	Watercourse R1 was recorded on the Sites eastern boundary, with the stream issuing to the south of the Site near tree T1. The stream then flows south, along the western edge of Woodland W1, before exiting the site via a culvert under Longsight Road. The watercourse featured a reasonable variety of emergent vegetation with brooklime, water-cress, floating sweet-grass, creeping buttercup and reed canary-grass. The invasive Species Himalayan Balsam was locally frequent. The watercourse comprised two sub-reaches, with sub-reach A assessed upstream where the stream banks are open and sub-reach B downstream, where R1 runs adjacent woodland W1. Sub-reach A was assessed as being in 'Fairly poor' and sub-reach B 'Moderate' condition. It was also considered to be over deep (river shape index of 2.480 and 2.5). Therefore, the condition of has been downgraded from 'Fairly poor' to 'Poor' for sub-reach A and moderate to 'Fairly poor' for sub-reach B condition. See Appendix C for results.	

Ref	Habitat type	Condition	Description	Photo
R2	Other Rivers and streams	Fairly Poor	Watercourse R2 ran from south to north through the centre of the Site, issuing from a culvert under the railway and running through the steep sided channel featuring woodland W2. Himalayan balsam was frequent along the watercourse, particularly to the north. The watercourse comprised two sub-reaches, with sub-reach A recorded to the south of the Site where banks were open and sub-reach B being further downstream within woodland W2. with both of the reaches assessed as being in 'Moderate' condition, however, it was also considered to be over deep (river shape index of 0.556 and 1.160). Therefore, the condition of R1 has been downgraded from moderate to 'Fairly poor' condition. See Appendix C for results.	
D1	Ditch	Poor	Watercourse D1, was a shallow ditch running along the western boundary edge within at the centre of woodland D1. Th ditch featured very shallow water with Himalayan balsam locally frequent at its northern extent. The ditch was assessed as being in poor condition.	

Baseline Habitat Value

5.8 The baseline value of the Site has been provisionally calculated at 159.62 area habitat units, 6.53 watercourse units and 4.03 hedgerow units. Therefore, a total of 175.59 habitat units, 7.18 watercourse units and 4.44 hedgerow units will be required to deliver a 10% net gain within the Site. Note: a 10% gain will need to be provided for the habitat and linear units separately, i.e., a gain in hedgerow units cannot be used to offset a deficit in habitat units.

6.0 PROPOSED HABITATS

6.1 The habitats proposed are shown in Figure 2 with the proposed habitat distinctiveness and condition shown on Figure 5. Proposals are for an outline application, with detailed design and landscaping reserved for subsequent approvals. As such, the proposed habitat classification and condition have been interpreted from the Sites Illustrative Masterplan (Drawing number 0104 -D - Illustrative Masterplan), with assumptions and interpretations made where necessary.

Habitat Retention

6.2 Figure 3 shows the habitat retention plan. The vast majority of the site comprises medium distinctiveness grassland habitats, with the central river corridor and the eastern section of the Site comprising moderately species rich grassland of higher biodiversity value (other neutral grassland in good condition). The western section of the site comprising of neutral grassland of low species diversity (other neutral grassland in poor condition).

6.3 The iterative design process, which led to the sites Illustrative Masterplan has sought to retain higher distinctiveness habitats within the site and to strengthen existing ecological corridors. This has been achieved through the following intrinsic ecological avoidance measures:

- Impacts to high distinctiveness habitats have been avoided, with the retention and buffering of the Lowland mixed deciduous woodland present within the Site. Furthermore, woodlands W1 and W2 will be enhanced as part of proposals, which supports wider LNRS aims.
- Similarly, both streams, which are high distinctiveness watercourse habitats, will be retained as part of proposals, with the exception of two sections of the central watercourse R2, which will require culverting under the proposed internal roads. Watercourse R1, present on the sites eastern boundary will be enhanced as part of proposals.
- The vast majority of mature free-standing trees have been retained and buffered as part of proposals, the exceptions are:
    - A large oak tree and a medium alder, which require removal to facilitate the internal access road to the south of the site;
    - Three large oak trees and a medium sycamore, which require removal to facilitate the creation of a SuDS basin to the north of the Site;
    - Two large oak trees which require removal to facilitate residential development to the east; &
    - A single medium sized ash tree on the northern Site boundary.

- Proposals have sought to focus development on the western section of the site, which contains predominantly species poor neutral grassland. Significant areas of the moderately species rich grassland (Other Neutral Grassland in Good condition) and the small area of other acid grassland, recorded centrally and to the east of the site will be retained, with measures outlined to enhance the neutral grassland to a higher distinctiveness category;
- Three of the existing ponds will be retained within the scheme, with ponds P3, P5 and P6 lost to proposals.
- All hedgerows and tree lines will be retained and where possible enhanced, with the exception of 160m of species poor native hedgerow (H1), which will be removed to facilitate access and the visibility splay.

Habitat Creation and Enhancement

6.4 Tables 4 and 5, below outline the proposed habitats within the site, which have been provisionally determined, in the absence of detailed landscape plans, as the most appropriate habitat interventions for the Site. Outline habitat creation and ongoing management prescriptions have been included for each habitat to demonstrate how measures will meet the specified habitat creation and condition criteria required. This has been provided to highlight how the onsite measures secured by subsequent approvals could contribute to satisfactorily discharging the Biodiversity Net Gain condition.

Table 4: Proposed area-based habitats

Habitat	**Outline Habitat Creation and management prescriptions**	Target Condition
Habitat Enhancement		
Lowland Meadow	Existing areas of other neutral grassland in good condition, will be enhanced to lowland meadow. This habitat is present within extensive areas to the east of the site and along the central woodland/river corridor. These communities featured a number of lowland meadow indicators, but overall, the community was provisionally assessed as not meeting the qualifying criteria for lowland meadow due to the overall species diversity and cover of wildflowers. The community is currently managed by extensive grazing, and it is considered that the introduction of a cut and collect regime and targeted introduction of locally appropriate wildflowers would result in a distinctiveness increase. The enhanced grasslands will be protected during construction through the use of heras fencing. The grasslands will be cut hard in late summer early autumn then raked or harrowed expose ~50% bare ground. The grasslands will then be seeded with green hay from a suitable species rich grassland donor site within 15km of the application site. If a suitable donor site for green hay cannot be sourced, as an alternative a bespoke locally appropriate 100% wildflower seed mix will be sown. On-going management will involve a cut after flowering in July (with late June-August acceptable), removing arisings, preferably after they have dried, but immediately with the use of a cut and collect mower is also acceptable. Once every four years cut the grassland in September to allow late flowering species	Good

Habitat	**Outline Habitat Creation and management prescriptions**	Target Condition
	to set seed. In the absence of aftermath grazing a second cut and collect will be undertaken in late autumn or early spring. In order to target good condition, 20% of the grassland should be left unmown each year on-rotation and the cut height varied across the field from 50mm-90mm to introduce structural diversity into the sward. Monitoring will record the extent of bare ground within the sward and if a dense closed sward is extensive the field should be lightly chain harrowed to open up bare ground for recruitment. Inclusion of information boards so residents are informed about the biodiversity value of such habitats; why at certain periods the habitat looks unmanaged and to help create a sense of place.	
Other Neutral Grassland	The retained areas of other neutral grassland in poor and moderate condition will be enhanced as part of proposals. These grasslands generally featured a intimate mixture of grasses, but overall they lacked the overall species diversity and cover of neutral grassland indicators. It is considered that the introduction of favourable management and the targeted introduction of neutral grassland indicator species will result in an increase in condition. As above, the enhanced grasslands will be protected during construction through the use of heras fencing. Areas which are targeted for enhancement to good condition, are located adjacent to the proposed lowland meadow enhancement and will be enhanced and managed in line with the prescriptions above. The grasslands proposed to be enhanced to moderate condition, are located primarily to the west of the site. The ground will be prepared as above and sown with a wildflower rich seed mix, containing a suitable mix of neutral grassland indicators or green hay from a suitable local source. The grassland will be managed in line with the lowland meadow grassland, without the requirement to leave a proportion of the grassland unmown during each cut.	Moderate - Good
Lowland Mixed Deciduous Woodland	Woodlands W1 and W2 will be brought into favourable management to retain their existing value. An increase in condition can be achieved specifically by: • Undertaking a programme of removal of non-native invasive species, particularly Himalayan balsam. The woodland will be monitored to ensure continued absence and corrective measures undertaken if re-recorded. • the removal of grazing animals from the woodlands to reduce negative impact and encourage regeneration. • Selective felling on non-native trees, where appropriate and coppicing of suitable understorey shrubs to encourage natural regeneration of gaps and diversify the structure of the woodland. • Deadwood from native trees from coppicing and thinning should be left in-situ, both as standing and lying deadwood. • Underplanting of native shrub species to increase structural diversity.	Moderate

Habitat	**Outline Habitat Creation and management prescriptions**	Target Condition
Habitat Creation		
Other Neutral grassland	Other Neutral Grassland in good condition will be created within the proposed BNG area to the west of the Site. No public access is proposed within this area. Soil nutrient testing will be undertaken to inform the suitability of the areas for the proposed habitat / condition and the seed mix used. The existing vegetation will be removed, the field cultivated, harrowed and rolled to produce a fine tilth. The grasslands will then be seeded with a wildflower rich seed mix or green hay from a suitable local source. Following seeding the bed will be rolled to ensure good seed contact. The wildflower mix should include yellow rattle, which will control excessive grass growth. Ongoing management will involve 1-2 cuts per year, with the grassland left un-mown during the summer and any arisings removed. 20% of each field will be left unmown during each cut, on rotation to ensure a mix of sward heights. In addition, the overall cover of bare ground will be monitored and corrective measures undertaken, as outlined above if above the specified thresholds.	Good
SUDS basins – Other Neutral Grassland	Provisionally, the SUDS basins to the north of the site have been assumed to be seeded with a wildflower rich wet grassland mix and managed to support other neutral grassland in moderate condition. The grassland within the basins will be cut 1-2 times per year with arisings removed.	Moderate
Modified Grassland	The formal grassland areas within the built development have been targeted as modified grassland in moderate condition. This is equivalent to a 'flowering lawn' a grassland which responds well to regular mowing, but with increased species diversity. These areas will be seeded using a flowering lawn mix, such as Emorsgate EL1 - flowering lawn mix. The grassland can be mown as usual during the growing season, with mowing relaxed for two months during May-June to allow flowering.	Moderate
Individual trees	The illustrative masterplan currently accounts for the planting of 304 new trees, although it is expected that this number will increase with the detailed design. The trees have been assumed to be native species which allows moderate condition to be targeted.	Moderate

Table 5: Proposed linear-based habitats

Habitat	Outline Habitat Creation and management prescriptions	Target Condition
Creation		
Species rich native hedgerow	The creation of new native species rich hedgerows have been included to replace the lost native hedgerow along the site entrance to the north, as well as along the boundaries of the Site. The planting mix should include a diverse mixture of native woody species, planted in staggered double rows. Management should allow for hedgerow growth of at least 1.5m in height and width. At least 1m of ground cover either side of the hedgerow should remain undisturbed, and hedgerow cutting should be done on rotation to allow for a continual supply of flowering and fruiting bushes.	Moderate
Enhancement		
Species rich native hedgerow	The calculations have accounted for the existing native hedgerows to be enhanced to species rich native hedgerows, through the laying and replanting of additional native woody species. Management should allow for hedgerow growth of at least 1.5m in height and width. At least 1m of ground cover either side of the hedgerow should remain undisturbed, and hedgerow cutting should be done on rotation to allow for a continual supply of flowering and fruiting bushes..	Moderate
Other river and stream – Watercourse R1	Calculations have accounted for the enhancement of Watercourse R1, recorded to the east of the site. Enhancement of R1, will be to reduce the bank height on the left hand bank, to reduce the effects of over-deepening and to enhance specific low scoring features. For the two sub-reaches the following areas have be targeted for enhancement: • Removal of invasive species on bank top and bank face. • Removal of grazing which is impacting bank profile due to poaching. • Restore natural bank profile in impacted areas. & • Removal of large trash from the channel bed. Please see appendix D for specified RCA potential enhancement areas.	Moderate – Fairly Good.

Significant Onsite Biodiversity Gains

6.5 It is considered that all of the creation and enhancement measures outlined in tables 4 and 5 above, would constitute 'significant onsite gains'. The Biodiversity Net Gain Condition, attached to any planning permission for the proposed development would secure the creation and ongoing management and monitoring of these habitats for a minimum of 30 years, via the approval of a detailed Habitat Management and Monitoring Plan (HMMP).

Outline Monitoring Requirements

6.6 The Site will be monitored at varying degrees from establishment and through its long-term management. Initially the Site will be monitored in years 1, 2, 3 & 5 by suitably experienced ecologists to review how the establishment of the proposed habitat enhancement is progressing. The key observations during this period will be to determine whether habitats are successfully improving and whether replacement planting or reseeding may be required.

6.7 Following that, during years 10-30, monitoring of the Site will be undertaken every 5 years beginning at year 10. The key elements of this monitoring will be to review whether the long-term management practices have achieved and maintained target habitat type and condition. During this period, adaptive management measures will be reviewed to determine whether there are any opportunities to alter management to encourage additional habitat enhancements.

7.0 BIODIVERSITY NET GAIN CALCULATION

7.1 The Statutory metric for the project is attached, with the headline summary results given below.

On-site baseline	*Habitat units*	159.62	
	Hedgerow units	4.03	
	Watercourse units	6.53	
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	128.88	
	Hedgerow units	6.78	
	Watercourse units	7.38	
On-site net change (units & percentage)	*Habitat units*	-30.74	-19.26%
	Hedgerow units	2.75	68.22%
	Watercourse units	0.85	13.05%

7.2 On-site post intervention consists of 128.88 habitat units, 6.78 hedgerow units and 7.38 watercourse units. As such, the development will result in a 19.26% loss in habitat units, but a 68.22% hedgerow gain and 13.05% watercourse gain.

7.3 To achieve a net gain of 10%, subsequent approvals will require an additional 46.7 habitat units. This can be achieved via a combination off onsite delivery and securing offsite habitat gains.

Habitat Trading

7.4 The habitats to be lost to proposals comprise predominantly of medium distinctiveness other neutral grassland, along with smaller losses to individual trees and non-priority ponds. Medium distinctiveness habitats will require compensation through creation and enhancement of habitats of the same broad habitat type. The above calculations result in a cumulative loss within the medium distinctiveness grassland and lake broad habitat types. The proposed onsite enhancement of the higher distinctiveness lowland mixed deciduous woodland and the lowland meadow grassland have contributed to reducing this deficit, but an additional 40.17 units of medium distinctiveness grassland will be required to satisfy trading rules.

8.0 CONCLUSION

8.1 Proposals are for an outline application and this Biodiversity Net Gain report establishes the Sites preliminary pre-development biodiversity value as determined through a UKHab survey and condition assessments. The report goes on to provide an illustrative Biodiversity Net Gain Calculation in order to demonstrate that the delivery of a 10% net gain is feasible for the project.

8.2 Baseline habitats were identified, mapped using the UKHab Classification system during surveys in October and November 2024 (Figure 1). Condition Assessments were undertaken, based on condition criteria as set out in the Statutory Biodiversity Metric User Guide.

8.3 At this stage a provisional baseline value for the Site has been provided. Detailed botanical surveys will be undertaken at an appropriate time of year in order to confirm classification, the extent of habitats and detailed condition assessments of the habitats; which will allow for an robust baseline value of the Site to be established. This report will require updating following the detailed surveys.

8.4 In advance of the detailed botanical survey, the site has provisionally been assessed as having a baseline biodiversity value of 159.62 area habitat units, 6.53 watercourse units and 4.03 hedgerow units.

8.5 A Biodiversity Net Gain calculation was then completed for the Site, with the onsite post-development habitats based on the Sites Illustrative Masterplan (Drawing number 0104 -D - Illustrative Masterplan), with the report outlining the most appropriate habitat creation and enhancement measures for the Site, which could be secured as part of the net gain condition attached to any planning permission, which would contribute towards providing a measurable net gain for the Site.

8.6 At present, based on the above, on-site post intervention consists of 128.88 habitat units, 6.78 hedgerow units and 7.38 watercourse units. As such, the development will result in a 19.26% loss in habitat units, but a 68.22% hedgerow gain and 13.05% watercourse gain.

8.7 To achieve a net gain of 10%, subsequent approval(s) will require an additional 46.7 habitat units, of which 40.17 are required of medium distinctiveness grassland units in order to satisfy trading rules.

8.8 The additional units required could be delivered through a combination of: additional onsite measures; offsite biodiversity units or as a last resort the purchase of statutory credits.

8.9 Given the above, it is concluded that proposals can deliver a biodiversity net gain for the scheme, which would be secured by the Biodiversity Net Gain Condition, attached to any planning permission for the proposed development.

APPENDIX A: SPECIES LISTS

Woodland W1

Common Name	Scientific Name	Upper canopy	understorey	young tree	sapling	Seedling	Ground Flora
Pedunculate oak	*Quercus robur*	A					
Sycamore	*Acer pseudoplatanus*	O					
Beech	*Fagus sylvatica*	O				R	
Alder	*Alnus glutinosa*	O		R	LF		
ash	*Fraxinus excelsior*	R					
Goat willow	*Salix caprea*	R					
Scots pine	*Pinus sylvestris*	R					
Hazel	*Corylus avellana*		O				
Holly	*Ilex aquifolium*		R				
Hawthorn	*Crataegus monogyna*		R				
Elder	*Sambucus nigra*		R				
Ground Flora							
Common bent	*Agrostis capillaris*						F
Himalayan balsam	*Impatiens glandulifera*						LA
Creeping buttercup	*Ranunculus repens*						LF
Wood avens	*Geum urbanum*						LO
Tufted hair-grass	*Deschampsia caespitosa*						LO
Bramble	*Rubus fruticosus agg.*						O
Broad buckler-fern	*Dryopteris dilatata*						O

Common Name	Scientific Name	Upper canopy	understorey	young tree	sapling	Seedling	Ground Flora
Cock's-foot	*Dactylis glomerata*						O
Wood speedwell	*Veronica montana*						O
False brome	*Brachypodium sylvaticum*						R
Lady-fern	*Athyrium filix-femina*						R
Remote sedge	*Carex remota*						R
Foxglove	*Digitalis purpurea*						R
Yellow pimpernel	*Lysimachia nemorum*						R
Red campion	*Silene dioica*						R
Herb-robert	*Geranium robertianum*						R
Common nettle	*Urtica dioica*						R
Hedge woundwort	*Stachys sylvatica*						R
Meadowsweet	*Filipendula ulmaria*						R
Pendulous sedge	*Carex pendula*						R
Common figwort	*Scrophularia nodosa*						R
Marsh thistle	*Cirsium palustre*						R
Soft-rush	*Juncus effusus*						R
Reed canary-grass	*Phalaris arundinacea*						R

Woodland W2

Common Name	Scientific Name	Upper canopy	understorey	young tree	sapling	Ground Flora
Pedunculate oak	*Quercus robur*	A			R	
ash	*Fraxinus excelsior*	O				

Common Name	Scientific Name	Upper canopy	understorey	young tree	sapling	Ground Flora
Alder	*Alnus glutinosa*	R		R		
Holly	*Ilex aquifolium*		O			
Hawthorn	*Crataegus monogyna*		O			
Hazel	*Corylus avellana*		R			
Ground Flora						
Common bent	*Agrostis capillaris*					A
Himalayan balsam	*Impatiens glandulifera*					F
Ribwort plantain	*Plantago lanceolata*					O
Male-fern	*Dryopteris filix-mas*					O
Broad buckler-fern	*Dryopteris dilatata*					O
Tormentil	*Potentilla erecta*					LO
Common ragwort	*Jacobaea vulgaris*					R
Bramble	*Rubus fruticosus agg.*					R
Common ivy	*Hedera helix*					R
Lady-fern	*Athyrium filix-femina*					R
Wood avens	*Geum urbanum*					R
Hart's-tongue	*Asplenium scolopendrium*					R
Herb-robert	*Geranium robertianum*					R
Remote sedge	*Carex remota*					R
Great willowherb	*Epilobium hirsutum*					R
Pendulous sedge	*Carex pendula*					R
Foxglove	*Digitalis purpurea*					R

Woodland W3

Common Name	Scientific Name	Upper canopy	understorey	young tree	sapling	Seeding	Ground Flora
Pedunculate oak	*Quercus robur*	A			F	F	
Sycamore	*Acer pseudoplatanus*	F					
ash	*Fraxinus excelsior*	O			R		
Hazel	*Corylus avellana*		F			R	
Hawthorn	*Crataegus monogyna*		R		R		
Holly	*Ilex aquifolium*				R		
Dog rose	*Rosa canina*						
Blackthorn	*Prunus spinosa*				R		
Ground Flora							
Himalayan balsam	*Impatiens glandulifera*						F
Creeping bent	*Agrostis stolonifera*						LF
Bramble	*Rubus fruticosus agg.*						O
Male-fern	*Dryopteris filix-mas*						O
Common ivy	*Hedera helix*						O
Wood avens	*Geum urbanum*						O
Dog's mercury	*Mercurialis perennis*						O
Field horsetail	*Equisetum arvense*						R
Broad buckler-fern	*Dryopteris dilatata*						R
Herb-robert	*Geranium robertianum*						R
Wood melick	*Melica uniflora*						R
Hart's-tongue	*Asplenium scolopendrium*						R

Common Name	Scientific Name	Upper canopy	understorey	young tree	sapling	Seeding	Ground Flora
Hairy-brome	*Bromopsis ramosa*						R

Scrub Sc1

Common Name	Scientific Name	Upper canopy	sapling	Ground flora
Hawthorn	*Crataegus monogyna*	F		
Holly	*Ilex aquifolium*		O	
hazel	*Corylus avellana*	R		
Ground Flora				
Common nettle	*Urtica dioica*			F
Creeping buttercup	*Ranunculus repens*			F
Himalayan balsam	*Impatiens glandulifera*			LF
Common ivy	*Hedera helix*			O
Creeping thistle	*Cirsium arvense*			O
Bramble	*Rubus fruticosus agg.*			R

Scrub Sc2

Common Name	Scientific Name	Upper canopy	understorey
Blackthorn	*Prunus spinosa*		A
Hawthorn	*Crataegus monogyna*		R
Alder	*Alnus glutinosa*	R	

Lowland Acid Grassland

Common Name	Scientific Name	A1
Undesirables		
White Clover	*Trifolium repens*	R
Common Ragwort	*Jacobaea vulgaris*	R
Grasses and Rushes		
Common bent	*Agrostis capillaris*	A
Yorkshire-fog	*Holcus lanatus*	F
Red fescue	*Festuca rubra*	F
Crested dog's-tail	*Cynosurus cristatus*	R
Sweet vernal-grass	*Anthoxanthum odoratum*	R
Soft-rush	*Juncus effusus*	R
Wildflowers and Sedges		
Ribwort plantain	*Plantago lanceolata*	F
Tormentil	*Potentilla erecta*	F
betony	*Betonica officinalis*	LF
Red bartsia	*Odontites vernus*	O
Hairy sedge	*Carex hirta*	O
Common sorrel	*Rumex acetosa*	O
Red clover	*Trifolium pratense*	R
Yellow Club mushroom	*Clavulinopsis Sp. [indet]*	R

Other Neutral Grassland – Moderate – Good Condition

Common Name	Scientific Name	ONG1	ONG2	ONG3	ONG8
Undesirables					
Perennial Rye-grass	*Lolium perenne*	O LF			
White Clover	*Trifolium repens*		R		
Broad-leaved Dock	*Rumex obtusifolius*	O	O		
Common Nettle	*Urtica dioica*				
Common Ragwort	*Jacobaea vulgaris*	O LF	R		
Creeping Buttercup	*Ranunculus repens*	F	R O	O	O
Creeping Thistle	*Cirsium arvense*	LF	R		
Curled Dock	*Rumex crispus*				
Greater Plantain	*Plantago major*				
Spear Thistle	*Cirsium vulgare*				
Grasses and Rushes					
Common bent	*Agrostis capillaris*	F	F	O	A
Yorkshire-fog	*Holcus lanatus*	F	O	O	O
Creeping bent	*Agrostis stolonifera*	LF	F	F	F
Meadow foxtail	*Alopecurus pratensis*	O	O	O	
Cock's-foot	*Dactylis glomerata*	O	O	R	
Red fescue	*Festuca rubra*	O F	O	F	O
Soft-rush	*Juncus effusus*	R	O	R	R
Sweet vernal-grass	*Anthoxanthum odoratum*	R	O	R	
Reed canary-grass	*Phalaris arundinacea*	R	R		

Common Name	Scientific Name	ONG1	ONG2	ONG3	ONG8
Timothy	*Phleum pratense*	R		O	
Crested dog's-tail	*Cynosurus cristatus*	R O	R		F
Hard rush	*Juncus inflexus*		F	R	
Sharp-flowered rush	*Juncus acutiflorus*		LF	O	R
Tufted hair-grass	*Deschampsia caespitosa*		O	O	O
Compact rush	*Juncus conglomeratus*		O	R	O
Smooth meadow-grass	*Poa pratensis*				R
Wildflowers and Sedge					
Ribwort plantain	*Plantago lanceolata*	F	F	F	F
Red bartsia	*Odontites vernus*	O	O	O	F
Common sorrel	*Rumex acetosa*	O	O	O	O
Great burnet	*Sanguisorba officinalis*	O	O F	R	O
Hairy sedge	*Carex hirta*	O F	F		
Red clover	*Trifolium pratense*	R	R		
Meadow buttercup	*Ranunculus acris*	R	R	R	O
Smooth hawk's-beard	*Crepis capillaris*	R	R		O
Tormentil	*Potentilla erecta*	R	R O	O	O
Meadow vetchling	*Lathyrus pratensis*	R	R O		
Common mouse-ear	*Cerastium fontanum*	R		R	
Greater bird's-foot-trefoil	*Lotus pedunculatus*	R -O	F	R	F O
betony	*Betonica officinalis*		R		

Common Name	Scientific Name	ONG1	ONG2	ONG3	ONG8
Common knapweed	*Centaurea nigra*		R	R	O
Oval sedge	*Carex leporina*		R		
Sneezewort	*Achillea ptarmica*		R LO	R	O
Silverweed	*Potentilla anserina*			LF	
Glaucous sedge	*Carex flacca*				LF
Himalayan balsam	*Impatiens glandulifera*				R LF

Other Neutral Grassland – Poor Condition

Common Name	Scientific Name	ONG1a	ONG4	ONG5	ONG6	ONG7	ONG9
Undesirables							
Perennial Rye-grass	*Lolium perenne*	O LF				R	A
White Clover	*Trifolium repens*					R	
Broad-leaved Dock	*Rumex obtusifolius*	O	R	O	R	R	R
Common Nettle	*Urtica dioica*		R		R		
Common Ragwort	*Jacobaea vulgaris*	O LF	R	R	R	R	
Creeping Buttercup	*Ranunculus repens*	F	F	F	F	F	O
Creeping Thistle	*Cirsium arvense*	LF	LF	O	LF	R	
Curled Dock	*Rumex crispus*						R
Grasses and Rushes							
Yorkshire-fog	*Holcus lanatus*	F	A	F	F	O	F
Common bent	*Agrostis capillaris*	F		O		A	
Creeping bent	*Agrostis stolonifera*	LF		F	F	O	F

Common Name	Scientific Name	ONG1a	ONG4	ONG5	ONG6	ONG7	ONG9
Meadow foxtail	*Alopecurus pratensis*	O		O			
Cock's-foot	*Dactylis glomerata*	O	O	R	F	O	R
Red fescue	*Festuca rubra*	O F		O		O	O
Soft-rush	*Juncus effusus*	R		R	R	R	
Timothy	*Phleum pratense*	R		R		O	
Sweet vernal-grass	*Anthoxanthum odoratum*	R		R		R	
Reed canary-grass	*Phalaris arundinacea*	R			R		
Crested dog's-tail	*Cynosurus cristatus*	R O				F	
Compact rush	*Juncus conglomeratus*			R		R	
False oat-grass	*Arrhenatherum elatius*		F		F	R	
Field wood-rush	*Luzula campestris*					R	
Soft Brome	*Bromus hordeaceus*						R
Wildflowers and sedges							
Ribwort plantain	*Plantago lanceolata*	O		O F	R	F	R
Common sorrel	*Rumex acetosa*	O	R	R	O	R O	O
Red bartsia	*Odontites vernus*	O		R		O F	
Meadow buttercup	*Ranunculus acris*	R		O	O	R	O
Common mouse-ear	*Cerastium fontanum*	R				R	R
Red clover	*Trifolium pratense*	R				R	
Tormentil	*Potentilla erecta*	R				R	
Great burnet	*Sanguisorba officinalis*	R					
Smooth hawk's-beard	*Crepis capillaris*	R					

Common Name	Scientific Name	ONG1a	ONG4	ONG5	ONG6	ONG7	ONG9
Silverweed	*Potentilla anserina*	R	O				
Hairy sedge	*Carex hirta*		O	O		O	
Greater bird's-foot-trefoil	*Lotus pedunculatus*			R		R	
Himalayan balsam	*Impatiens glandulifera*				LF		
Great willowherb	*Epilobium hirsutum*				LF		
Bramble	*Rubus fruticosus agg.*				LF		
Common hogweed	*Heracleum sphondylium*				O		
Redshank	*Persicaria maculosa*				R		
Cat's-ear	*Hypochaeris radicata*					R	
Selfheal	*Prunella vulgaris*					R	
Dandelion	Taraxacum officinale agg.		O				F
Great willowherb	*Epilobium hirsutum*		LF				
Cuckooflower	*Cardamine pratensis*						R

Modified Grassland

Common Name	Scientific Name	M1
Undesirables		
Perennial Rye-grass	*Lolium perenne*	D
White Clover	*Trifolium repens*	R
Broad-leaved Dock	*Rumex obtusifolius*	R
Creeping Buttercup	*Ranunculus repens*	F
Grasses and Rushes		

Common Name	Scientific Name	M1
Yorkshire-fog	*Holcus lanatus*	O
Wildflowers and sedges		
Dandelion	*Taraxacum officinale agg.*	F
Common sorrel	*Rumex acetosa*	R
Meadow buttercup	*Ranunculus acris*	O
Cuckooflower	*Cardamine pratensis*	R
Hairy sedge	*Carex hirta*	R

Watercourses

Common Name	Scientific Name	R1	R2
Creeping buttercup	*Ranunculus repens*	A	O
Creeping bent	*Agrostis stolonifera*	F	
Himalayan balsam	*Impatiens glandulifera*	LF	F
Great willowherb	*Epilobium hirsutum*	LF	
Hairy sedge	*Carex hirta*	O	O
Brooklime	*Veronica beccabunga*	O	
Common nettle	*Urtica dioica*	R	LF
Hard rush	*Juncus inflexus*	R	O
Meadowsweet	*Filipendula ulmaria*	R	R
Hawthorn	*Crataegus monogyna*	R	R
Alder	*Alnus glutinosa*	R	R
Broad-leaved dock	*Rumex obtusifolius*	R	

Common Name	Scientific Name	R1	R2
Floating sweet-grass	*Glyceria fluitans*	R	
Bramble	*Rubus fruticosus agg.*	R	
Water-cress	*Nasturtium officinale*	R	
Reed canary-grass	*Phalaris arundinacea*	R	
Soft-rush	*Juncus effusus*		F
Common hogweed	*Heracleum sphondylium*		O
Silverweed	*Potentilla anserina*		O
ash	*Fraxinus excelsior*		R
Jointed rush	*Juncus articulatus*		R

Ponds

Common Name	Scientific Name	P1	P2	P3	P4	P5	P6
Creeping buttercup	*Ranunculus repens*	A		F		LF	F
Himalayan balsam	*Impatiens glandulifera*	O LF					
Remote sedge	*Carex remota*	O					
Soft-rush	*Juncus effusus*	R	A	LF		R	O
Creeping bent	*Agrostis stolonifera*	O			D	LF	
A water-starwort	*Callitriche sp.*	O					
Creeping thistle	*Cirsium arvense*		O				
Brooklime	*Veronica beccabunga*		O	O			
Great willowherb	*Epilobium hirsutum*		O	O			
Broad-leaved dock	*Rumex obtusifolius*		R			F	

Common Name	Scientific Name	P1	P2	P3	P4	P5	P6
Common nettle	*Urtica dioica*		O		LF		
Hairy sedge	*Carex hirta*		R				
Floating sweet-grass	*Glyceria fluitans*			F			F
Cock's-foot	*Dactylis glomerata*				R		
Redshank	*Persicaria maculosa*					R	
Sharp-flowered rush	*Juncus acutiflorus*					R	

Hedgerow H1

length (m)	320	Height(m)	1.3	Width(m)	2.5	Ditch	no			Bank	no					
Type here	Common Name	Scientific Name	Dafor	30m - 1	30m -2	30m - 3	Veteran standard	Mature standard	Young standard		Gaps (m)	Type here	Common Name	Scientific Name
Hawthorn	Hawthorn	*Crataegus monogyna*	d	x	x	x						Bramble	Bramble	*Rubus fruticosus agg.*
Sycamore	Sycamore	*Acer pseudoplatanus*	r									Himalayan balsam	alayan bals	*Impatiens glandulifera*
Elder	Elder	*Sambucus nigra*	o	x	x	x							-	-
ash	ash	*Fraxinus excelsior*	r					1					-	-
Dog rose	Dog rose	*Rosa canina*	r										-	-

Hedgerow H2

length (m)	105	Height(m)	2	Width(m)	1	Ditch	no			Bank						
Type here	Common Name	Scientific Name	Dafor	30m - 1	30m -2	30m - 3	Veteran standard	Mature standard	Young standard		Gaps (m)	Type here	Common Name	Scientific Name
Hawthorn	Hawthorn	*Crataegus monogyna*	a	x	x								-	-
Blackthorn	Blackthorn	*Prunus spinosa*	f	x	x								-	-
Holly	Holly	*Ilex aquifolium*	r	x									-	-
Osier	Osier	*Salix viminalis*	r						1				-	-

Hedgerow H3

length (m)	52	Height(m)	2.5	Width(m)	2	Ditch			Bank					
Type here	Common Name	Scientific Name	Dafor	30m - 1	30m -2	30m - 3	Veteran standard	Mature standard	Young standard		Gaps (m)	Type here	Common Name	Scientific Name
Hazel	Hazel	*Corylus avellana*	o									Bramble	Bramble	*s fruticosus*
Hawthorn	Hawthorn	*Crataegus monogyna*	a	x									-	-
Sycamore	Sycamore	*Acer pseudoplatanus*	r										-	-
Elder	Elder	*Sambucus nigra*	o	x									-	-
Dog rose	Dog rose	*Rosa canina*	r										-	-
Pedunculate oak	Pedunculate oak	*Quercus robur*	r	x				1					-	-
Holly	Holly	*Ilex aquifolium*	r	x									-	-

Hedgerow H4

length (m)	86	Height(m)		Width(m)		Ditch			Bank					
Type here	Common Name	Scientific Name	Dafor	30m - 1	30m -2	30m - 3	Veteran standard	Mature standard	Young standard		Gaps (m)	Type here	Common Name	Scientific Name
Blackthorn	Blackthorn	*Prunus spinosa*	f								12	Bramble	Bramble	*s fruticosus*
Hazel	Hazel	*Corylus avellana*	o	x								Raspberry	Raspberry	*Rubus idaeus*
Hawthorn	Hawthorn	*Crataegus monogyna*	a	x									-	-
Pedunculate oak	Pedunculate oak	*Quercus robur*	r										-	-
ash	ash	*Fraxinus excelsior*	r					x					-	-

Hedgerow H5

length (m)	83	Height(m)	2	Width(m)	2	Ditch			Bank					
Type here	Common Name	Scientific Name	Dafor	30m - 1	30m -2	30m - 3	Veteran standard	Mature standard	Young standard		Gaps (m)	Type here	Common Name	Scientific Name
Hawthorn	Hawthorn	*Crataegus monogyna*	f	x								Honeysuckle	Honeysuckle	*era periclym*
Pedunculate oak	Pedunculate oak	*Quercus robur*	r	x				1					-	-
Holly	Holly	*Ilex aquifolium*	f	x									-	-
ash	ash	*Fraxinus excelsior*	r										-	-
Hazel	Hazel	*Corylus avellana*	lf	x									-	-
Sycamore	Sycamore	*Acer pseudoplatanus*	r										-	-
Dog rose	Dog rose	*Rosa canina*	r	x									-	-

APPENDIX B: BASELINE HABITAT CONDITION ASSESSMENTS

Grassland – Med and high distinctiveness. Good to moderate condition

Condition Criteria	ONG1	ONG2	ONG3	ONG8	A1
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 (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).1 Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Provisional pass some good quality indicators occasional (great burnet and Greater birds foot trefoil) plus ONG indicators ribwort plantain and common sorrel well represented	Considered good example of g3c8 with a number of ONG and Lowland meadow indicators	Provisional pass A moderately species rich g3c6 with borderline neutral indicators	Pass - a number of ONG and Lowland meadow indicators	Pass – Sufficient acid indicators to pass criterion
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.	Pass – grazing resulting in varied sward	Pass – grazing resulting in varied sward	Pass – grazing resulting in varied sward	Pass – grazing resulting in varied sward	Pass – grazing resulting in varied sward
Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens1.	Pass	Pass	Pass	Pass	Pass
Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruticosus agg.) is less than 5%.	Pass	Pass	Pass	Pass	Pass

Condition Criteria	ONG1	ONG2	ONG3	ONG8	A1
Combined cover of species indicative of sub-optimal condition2 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species3 (as listed on Schedule 9 of WCA4) are present, this criterion is automatically failed.	Fail - creeping thistle common ragwort with high cover	Pass	Pass	Pass	Pass
There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). N.B. this criterion is essential for achieving Good condition for non-acid grassland types only.	Pass borderline	Pass maybe borderline tall and tussocky	Fail	Pass	N/A
Total Passes	5	6	5	6	5
Condition	Good	Good	Moderate	Good	Good

Grassland – Med and high distinctiveness. Poor condition

Condition Criteria	ONG1a	ONG4	ONG5	ONG6	ONG7	ONG 9
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 (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).1 Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Provisional fail - Good quality indicators present but at low abundances, Plus ribwort plantain and other neutral indicators less frequent than community ONG1	Fail – like ONG4, but lacking diversity and cover of the neutral grassland indicator species	Fail - The only indicators noted were occasional to frequent ribwort plantain with occasional meadow buttercup and common sorrel.	Fail – only occasional common sorrel and meadow buttercup noted	Fail indicators not frequent	Fail – Borderline g4 and indicators not frequent
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.	Pass	Pass	Fail	Fail	Pass	Fail – All short
Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens1.	Pass	Pass	Pass	Pass	Pass	Pass
Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruticosus agg.) is less than 5%.	Pass	Pass	Pass	Fail – bramble encroaching	Pass	Pass

Condition Criteria	ONG1a	ONG4	ONG5	ONG6	ONG7	ONG 9
Combined cover of species indicative of sub-optimal condition2 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species3 (as listed on Schedule 9 of WCA4) are present, this criterion is automatically failed.	creeping thistle common ragwort with high cover	Pass	Pass	Fail – Himalayan balsam present and creeping thistle frequent	Pass	Pass – only creeping buttercup occasional
There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). N.B. this criterion is essential for achieving Good condition for non-acid grassland types only.	Borderline, but visibly less diverse than community 1	Fail	Fail	Fail	Pass borderline	Fail.
Total Passes	3	4	3	2	5	3
Condition	Poor	Poor	Poor	Poor	Poor	Poor

Ponds

Condition Criteria	P1	P2	P3	P4	P5	P6
The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Pass	Pass	Pass	Pass	Pass	Pass
There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Fail	Pass	Pass	Pass	Pass	Fail
Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Pass	Pass	Pass	Pass	Pass	Pass
The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	Pass	Pass	Pass	Pass	Pass
Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams2, pumps or pipework.	Pass	Pass	Pass	Pass	Pass	Pass
There is an absence of listed non-native plant and animal species3.	Fail	Pass	Pass	Pass	Pass	Pass
The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Pass	Pass	Pass	Pass	Pass	Pass
Non-woodland Ponds Emergent, submerged or floating plants (excluding duckweed)4 cover at least 50% of the pond area which is less than 3 m deep.	N/A	Fail	Fail	Fail	Fail	Fail
Non-woodland Ponds The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/A	Pass	Pass	Pass	Pass	Pass
Total Passes	5	8	8	8	8	7
Condition	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate

Hedgerows

Hedge	Hedgerow Type	A1 Height >1.5m	A2 width >1.5m	B1 Gap Hedge base	B2 - Gap hedge canopy	C1 - undisturbed ground	C2 - Nutrient Enriched Veg	D1 Invasives	D-2 Current damage	E-1 Tree Class	E-2 Tree health	Condition
H1	Native Hedgerow	Fail	Pass	Pass	Pass	Pass	Pass	Fail	Pass	N/a	N/a	Moderate
H2	Native Hedgerow	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Pass	N/a	N/a	Moderate
H3	Species Rich Native Hedgerow	Pass	Pass	Pass	Pass	Pass	Fail	Fail	Pass	N/a	N/a	Moderate
H4	Native Hedgerow	Fail	Fail	Pass	Fail	Pass	Pass	Pass	Pass	N/a	N/a	Moderate
H5	Species Rich Native Hedgerow	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass	N/a	N/a	Good

Grassland – Low distinctiveness.

Condition Criteria	M1
There are 6-8 vascular plant species per m2 present, including at least 2 forbs . Note - this criterion is essential for achieving Moderate or Good condition.	Fail
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.	Fail
Some scattered scrub (including bramble Rubus fruticosus agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass
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.	Pass
Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)2.	Pass
Cover of bracken Pteridium aquilinum is less than 20%.	Pass
There is an absence of invasive non-native plant species3 (as listed on Schedule 9 of WCA4).	Pass
Total Passes	5
Condition	Poor

Scrub

Condition Criteria	SC1	SC2
The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range).1 - At least 80% of scrub is native, - There are at least three native woody species2, - No single species comprises more than 75% of the cover (except hazel Corylus avellana, common juniper Juniperus communis, sea buckthorn Hippophae rhamnoides or box Buxus sempervirens, which can be up to 100% cover).	Fail	Fail
Seedlings, saplings, young shrubs and mature (or ancient or veteran2) shrubs are all present.	Fail all mature	Fail
There is an absence of invasive non-native plant species3 (as listed on Schedule 9 of WCA4) and species indicative of sub-optimal condition5 make up less than 5% of ground cover.	Fail him bal	Pass
The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Fail	Pass
There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail	Fail
Total Passes	0	2
Condition	Poor	Poor

Woodland

Condition Criteria	W1	W2	W3
Age Distribution of Trees 3 - three age classes 2 - two age classes 1 - one age class	1 all old	1	2
Herbivore Damage 3 - no significant browsing 2 - significant browsing pressure <40% 1 - significant browsing pressure >40%	1	2	3
Invasive Plant Species 3 - No invasive species 2 - invasive species <10% cover AND NO rhododendron or Cherry Laurel Present 1 - invasive species >10% cover or/and Rhododendron or cherry laurel present.	1	1	1
Number of Native Species 3 - 5+ native trees and/or shrubs 2 - 3-4 native trees and/or shrubs 1 - 2- native trees and/or shrubs	2	2	2
Cover of Native Species 3 - >80% of canopy & understorey native 2 - 50-80% of canopy & understorey native 1 - <50% of canopy & understorey native	3	3	3
Open Space 3 - 10-20% temporary open space If woodland area <10ha 0-20% temporary open space = Good 2 - 21-40% temporary open space 1 - <10% or >40% temporary open space	3	3	3
Woodland Regeneration 3 - 3 age classes 2 - 1-2 age classes 1 - No classes or coppice regrowth	1	1	2
Tree Health 3 - <10% mortality, no pests/disease, no dieback 2 - 11-25% mortality, low risk pest or disease present 1 - >25% mortality, high risk pest or disease present	2	2	2
Vegetation & Ground Flora 3 - Recognisable NVC community including ancient flora specialists 2 - Recognisable NVC community at ground level 1 - No recognisable NVC community	2	2	3
Woodland Vertical Structure 3 - Three or more storeys or a complex woodland 2 - Two storeys 1 - One or no defined storeys	1	2	2
Veteran Trees 3 - 2+ veteran trees per ha 2 - 1 veteran tree per ha 1 - no veterans	2	1	1

Condition Criteria	W1	W2	W3
Amount of Deadwood 3 - 50%+ of plots have deadwood 2 - 25-50% of plots have deadwood 1 - <25% of plots have deadwood	2	2	1
Disturbance and enrichment 3 - No nutrient enrichment or damaged ground 2 - <1ha of nutrient enrichment and /or less than 20% of woodland has damaged ground 1 - >1ha of nutrient enrichment and/or >20% of woodland has damaged ground	3	3	3
Total Score	24	25	28
Condition	Poor	Poor	Moderate

Tall Forbs

Condition Criteria	Tall forbs
A. Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Fail
B. The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Fail
C, Invasive non-native plant species (listed on Schedule 9 of WCA1) and others which are to the detriment of native wildlife (using professional judgement)2 cover less than 5% of the total vegetated area3.	Pass
Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Pass
Total Passes	1
Condition	Poor

Line of trees

Condition Criteria	Lot 1
At least 70% of trees are native species.	Pass
Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass
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.	Pass
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.	Fail

Condition Criteria	Lot 1
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.	Pass
Total Passes	4
Condition	Moderate

APPENDIX C: RIVER CONDITION ASSESSMENT RESULTS

Watercourse R1

Condition Assessment Criteria		Sub Reach A RCA Index Values	Sub Reach B RCA Index Values
RCA Index ID	RCA Index Name Green = Positive and Red = Negative scoring indices	Baseline Score	Baseline Score
Bank Top			
B1	Bank top vegetation structure	2	3
B2	Bank top tree feature richness	0	0
B3	Bank top water-related features	0	0
B4	*Bank top NNIPS cover*	-2	-2
B5	*Bank top managed ground cover*	-2	-2
Bank face			
C1	Bank face riparian vegetation structure	2	4
C2	Bank face tree feature richness	0	1
C3	Bank face natural bank profile extent	2	2
C4	Bank face natural bank profile richness	2	3
C5	Bank face natural bank material	1	1
C6	Bank face bare sediment extent	4	3
C7	*Bank face artificial bank profile extent*	-3	-2
C8	*Bank face reinforcement extent*	0	0
C9	*Bank face reinforcement material*	0	0
C10	*Bank face NNIPS* cover*	0	-3
Channel Margin			
D1	Channel margin aquatic vegetation	0	3
D2	Channel margin aquatic morphotype	0	1
D3	Channel margin physical feature extent	1	1
D4	Channel margin physical feature	1	2
D5	*Channel Margin artificial features*	0	0
Channel Bed			
E1	Channel aquatic Morphotype richness	0	1
E2	Channel bed tree features richness	0	2
E3	Channel bed hydraulic features richness	2	2
E4	Channel bed nature features richness	1	3
E5	Channel bed natural features richness	1	1

Condition Assessment Criteria		Sub Reach A RCA Index Values	Sub Reach B RCA Index Values
E6	Channel bed material richness	2	3
E7	*Channel bed siltation*	0	0
E8	*Channel bed reinforcement extent*	0	0
E9	*Channel bed reinforcement severity*	0	0
E10	*Channel bed artificial features severity*	-3	0
E11	*Channel bed NNIPS extent*	0	0
E12	*Channel bed filamentous algae extent*	0	0
Is the Watercourse Over Deep?		Yes	Yes
Final Condition Score (including over deepness assessment)		Poor	Fairly Poor

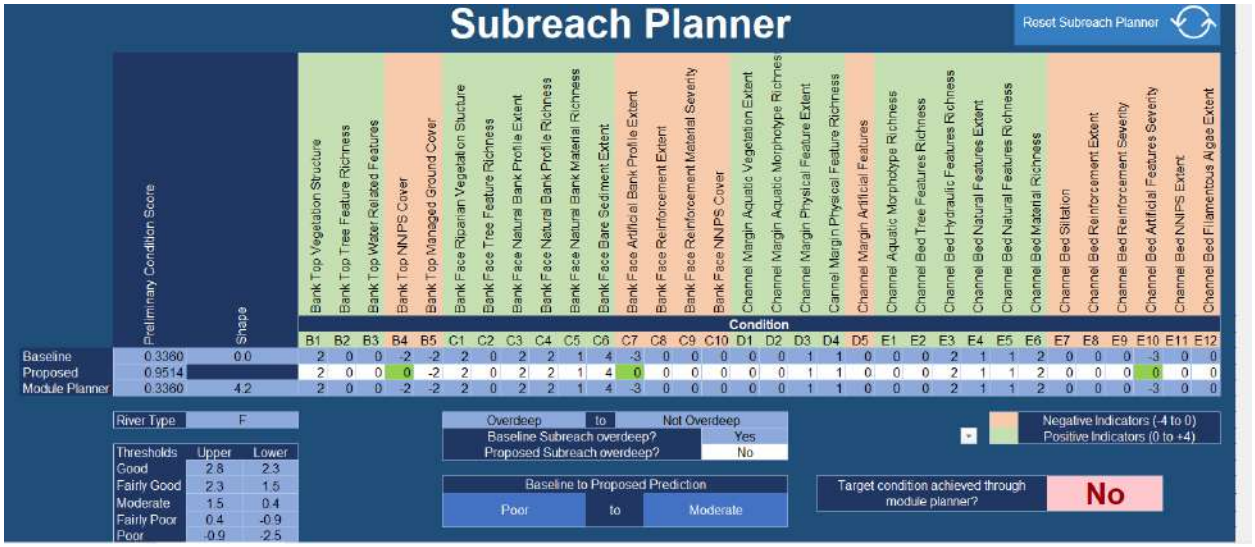
Watercourse R2

Condition Assessment Criteria		Sub Reach B RCA Index Values	Sub Reach A RCA Index Values
RCA Index ID	RCA Index Name Green = Positive and Red = Negative scoring indices	Baseline Score	Baseline Score
Bank Top			
B1	Bank top vegetation structure	2	2
B2	Bank top tree feature richness	2	0
B3	Bank top water-related features	0	0
B4	*Bank top NNIPS cover*	-3	-2
B5	*Bank top managed ground cover*	0	0
Bank face			
C1	Bank face riparian vegetation structure	2	3
C2	Bank face tree feature richness	1	0
C3	Bank face natural bank profile extent	3	2
C4	Bank face natural bank profile richness	2	3
C5	Bank face natural bank material	1	1
C6	Bank face bare sediment extent	1	2
C7	*Bank face artificial bank profile extent*	0	0
C8	*Bank face reinforcement extent*	0	0
C9	*Bank face reinforcement material*	0	0
C10	*Bank face NNIPS* cover*	-3	-3
Channel Margin			
D1	Channel margin aquatic vegetation	1	1

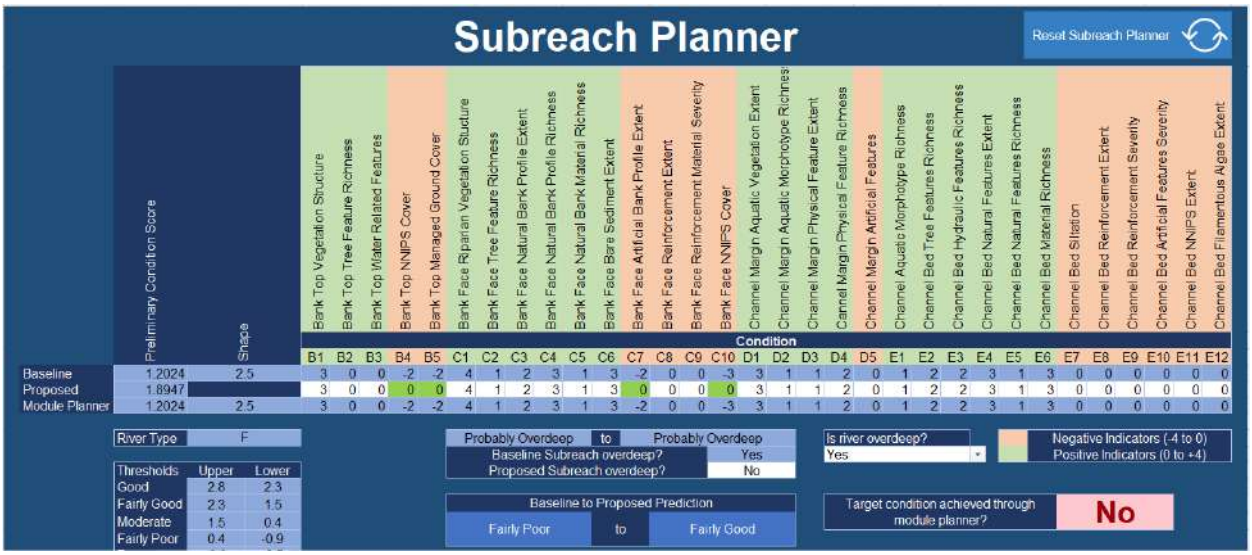
Condition Assessment Criteria		Sub Reach B RCA Index Values	Sub Reach A RCA Index Values
D2	Channel margin aquatic morphotype	0	0
D3	Channel margin physical feature extent	0	1
D4	Channel margin physical feature	0	1
D5	*Channel Margin artificial features*	0	0
Channel Bed			
E1	Channel aquatic Morphotype richness	0	0
E2	Channel bed tree features richness	2	0
E3	Channel bed hydraulic features richness	2	2
E4	Channel bed nature features richness	3	2
E5	Channel bed natural features richness	3	2
E6	Channel bed material richness	3	3
E7	*Channel bed siltation*	0	0
E8	*Channel bed reinforcement extent*	0	0
E9	*Channel bed reinforcement severity*	0	0
E10	*Channel bed artificial features severity*	0	0
E11	*Channel bed NNIPS extent*	-3	-1
E12	*Channel bed filamentous algae extent*	0	0
Is the Watercourse Over Deep?		Yes	Yes
Final Condition Score (including over deepness assessment)		Fairly Poor	Fairly Poor

APPENDIX D: WATERCOURSE ENHANCEMENT MODULE PLANNER.

River R1 – Sub-reach A



River R1 – Sub-reach B



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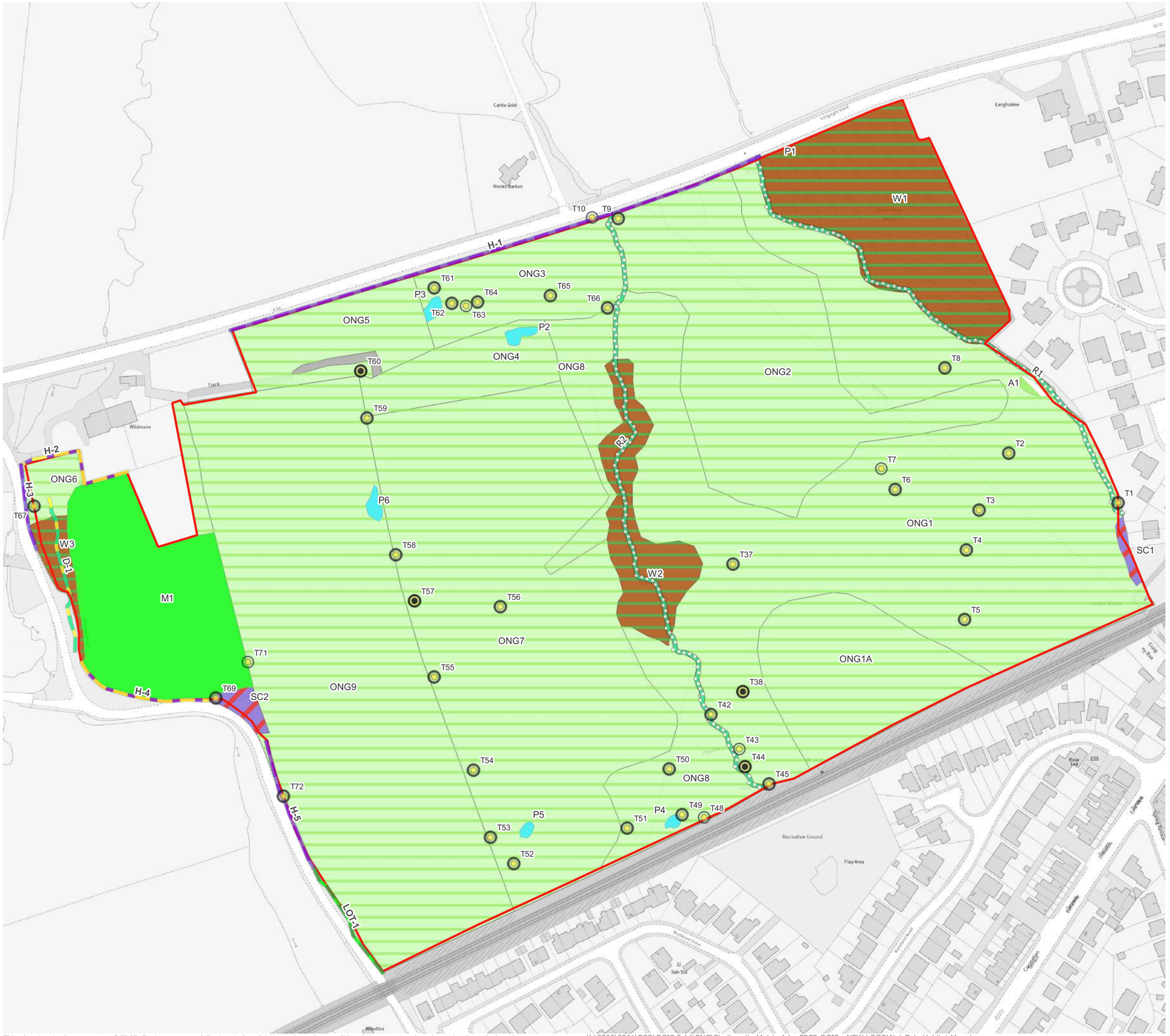

N

0 100

Red Line Boundary

Baseline Habitats

- Blackthorn scrub
- Hawthorn scrub
- Lowland dry acid grassland
- Lowland mixed deciduous woodland
- Modified grassland
- Other neutral grassland
- Ponds (non-priority habitat)
- Tall forbs

Baseline Hedgerow

- Ecologically valuable line of trees
- Native hedgerow
- Species-rich native hedgerow

Baseline Watercourse

- Ditches
- Other rivers and streams

Baseline Individual Trees

- Existing very large rural tree
- Existing large rural tree
- Existing medium rural tree

date 27/02/25

drwn/chkd IH

client
Hallam Land Management Limited

project
Land south of Longsight Road
Langho

title
BASELINE HABITAT PLAN

scale
1:2,300 @ A3

number
FIGURE 1

rev
-

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N

0 50 100 m

Red Line Boundary

Proposed Habitats

- Artificial unvegetated, unsealed surface
- Blackthorn scrub
- Built linear features
- Developed land; sealed surface
- Hawthorn scrub
- Lowland meadows
- Lowland mixed deciduous woodland
- Modified grassland
- Other lowland acid grassland
- Other neutral grassland
- Ponds (non-priority habitat)
- Vegetated garden

Proposed Hedgerows

- Ecologically valuable line of trees
- Species-rich native hedgerow

Proposed Trees

- Proposed Small Urban Tree
- Retained Very Large Rural Tree
- Retained Large Rural Tree
- Retained Medium Rural Tree

Proposed Watercourses

- Culvert
- Ditches
- Other rivers and streams

date: 27/02/25

drwn/chkd: LG / ET

client: **Hallam Land Management Limited**

project: **Land south of Longsight Road, Langho**

title: **PROPOSED HABITAT PLAN**

scale: 1:2,500 @ A3

number: **FIGURE 2**

rev: -

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N

0 50 100 m

Red Line Boundary

Habitat Retention

Habitat Enhanced

Habitat Retained

Habitat Lost

Hedgerow Retention

Hedgerow Enhanced

Hedgerow Retained

Hedgerow Lost

Watercourse Retention

Watercourse Enhanced

Watercourse Retained

Watercourse Lost

Tree Retention

Tree Retained

Tree Lost

date: 27/02/25

drwn/chkd: LG / ET

client: **Hallam Land Management Limited**

project: **Land south of Longsight Road, Langho**

title: **HABITAT RETENTION PLAN**

scale: 1:2,500 @ A3

number: **FIGURE 3**

rev: -

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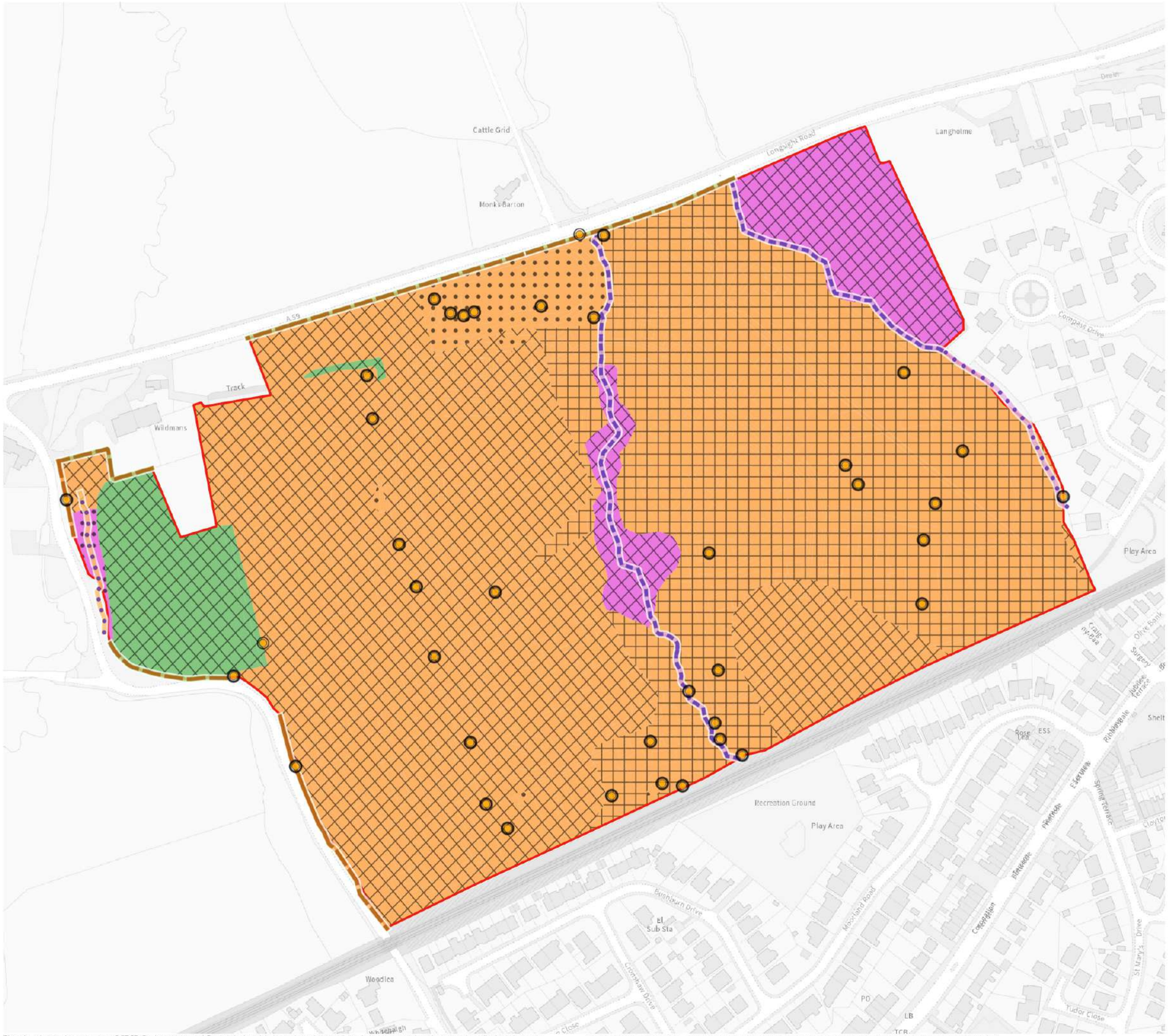

N

0 50 100 m

Red Line Boundary

Baseline Habitat Condition

Good

Moderate

Poor

Baseline Habitat Distinctiveness

High

Medium

Low

Baseline Hedgerow Condition

Good

Moderate

Baseline Hedgerow Distinctiveness

Medium

Low

Baseline Watercourse Condition

Fairly Poor

Poor

Baseline Watercourse Distinctiveness

High

Medium

Baseline Tree Condition

Moderate

Good

Baseline Tree Distinctiveness

Medium

date: 27/02/25

drwn/chkd: LG / ET

client: **Hallam Land Management Limited**

project: **Land south of Longsight Road, Langho**

title: **BASELINE HABITAT CONDITION AND DISTINCTIVENESS PLAN**

scale: 1:2,500 @ A3

number: **FIGURE 4**

rev: -

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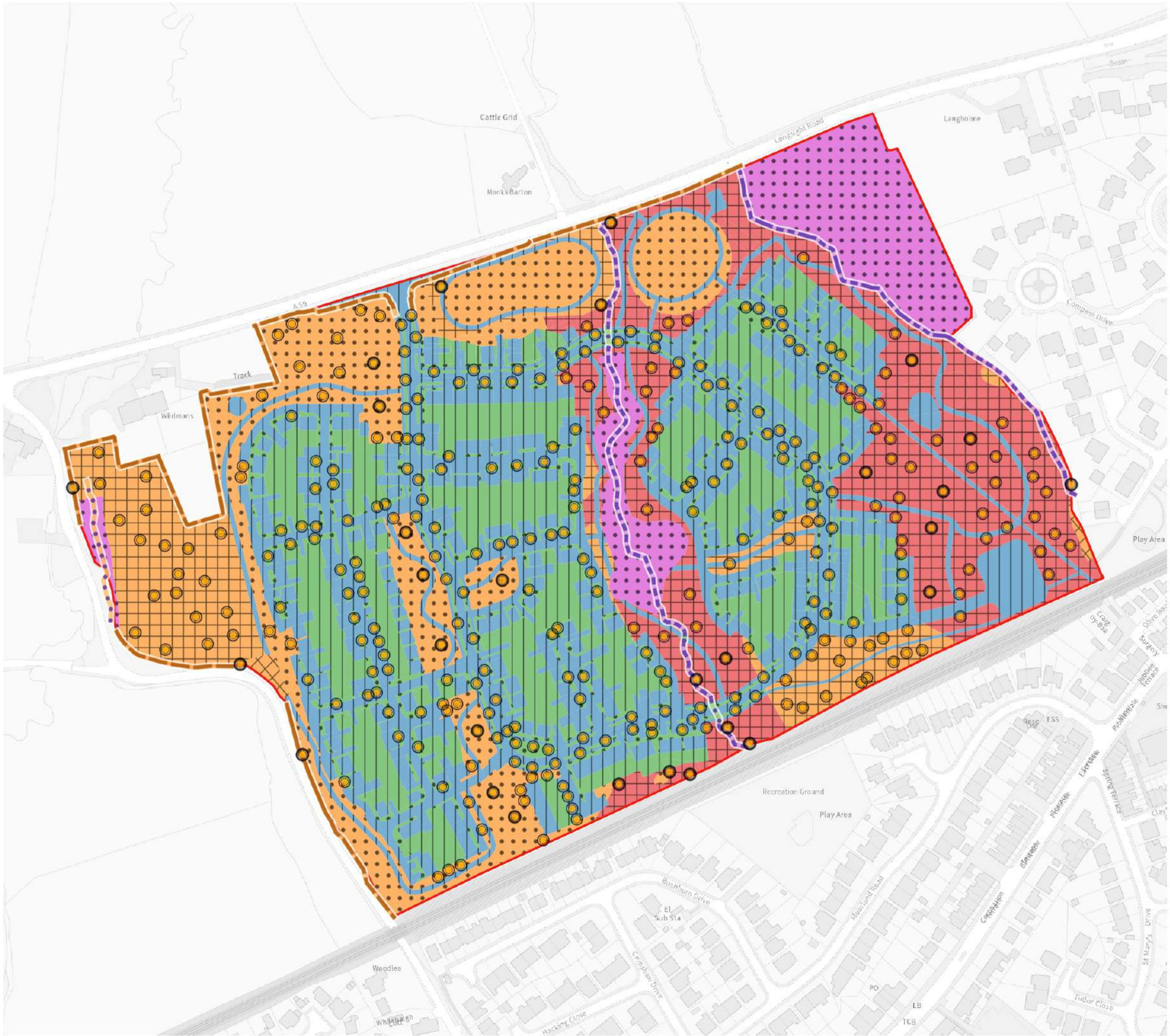

N

0 50 100 m

Red Line Boundary

Proposed Habitat Condition
- Good
- Moderate
- Poor
- N/A - Other
- Condition Assessment N/A

Proposed Habitat Distinctiveness
- V.High
- High
- Medium
- Low
- V.Low

Proposed Hedgerow Condition
- Good
- Moderate

Proposed Hedgerow Distinctiveness
- Medium

Proposed Watercourse Condition
- Moderate
- Fairly Poor
- Poor

Proposed Watercourse Distinctiveness
- High
- Medium
- Low

Proposed Individual Tree Condition
- Moderate
- Good

Proposed Individual Tree Distinctiveness
- Medium

date: 27/02/25

drwn/chkd: LG / ET

client: **Hallam Land Management Limited**

project: **Land south of Longsight Road, Langho**

title: **PROPOSED HABITAT CONDITION AND DISTINCTIVENESS PLAN**

scale: 1:2,500 @ A3

number: **FIGURE 5**

rev: -

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