Biodiversity Net Gain

Lancashire Central

ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

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1. INTRODUCTION

1.1 Purpose of this Report

1.1.1 In September 2021 Envirotech NW Ltd were commissioned to carry out an Ecological Appraisal of land at Lancashire Central, Cuerden, central grid reference SD553246, Figure 1. This was to include a Biodiversity Net Gain assessment (BNG). The aim was for an ecologist with botanical expertise to carry out a site visit to map the habitat types present at the site in order to establish the biodiversity baseline.

1.1.2 Following consultation with the local authority, due to an existing planning permission 07/2017/0211/ORM being partially implemented, baseline conditions were to be assessed as per pre-development conditions.

1.1.3 Simply Ecology (2012) undertook numerous field surveys between May and July 2012. From this a Phase 1 habitat map was prepared and presented in the reports submitted with planning application 07/2017/0211/ORM. This was the last time habitats were mapped prior to part implementation of planning consent 07/2017/0211/ORM.

1.1.4 Simply Ecology (2012) mapped each habitat type using the standard habitat mapping convention using Phase 1 habitat survey (JNCC, 2010).

1.1.5 This survey data was subsequently converted into the UK Habitat Classification (Butcher et al., 2020) by Envirotech in June 2022 for the purposes of using the Defra metric.

1.1.6 Using the findings of the baseline surveys by Simply Ecology (2012) and follow-up surveys by Envirotech in April and May 2022, the pre-construction ecological value of the site was measured. This was then assessed against proposed habitat changes arising from the proposed development based on the site layout (post-construction) provided by the client.

1.1.7 The scheme comprises a full planning application for Phase 1 Infrastructure for which a detailed landscape scheme has been prepared. The scheme also comprises an outline planning application with the layout and landscaping reserved. An indicative layout has been prepared for the outline application showing one of many potential development scenarios along with landscaping. This has been used to show one potential BNG outcome but cannot be taken as the final scheme.

1.1.8 This report presents the results of this desk-based study to assess net change in biodiversity 'units' in connection with the loss/ enhancement and creation of habitats for the proposed development at the site for both the Phase 1 Infrastructure and outline application areas combined.

1.2 Ecological Context

1.2.1 The area mapped for BNG onsite is 46.16Ha and *Figure 1* shows the site location.

Boundary

Figure 1

Site Location

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1.3 Policy context

1.3.1 Biodiversity net gain (BNG) is an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand Local Government Association (2022).

1.3.2 The National Planning Policy Framework (NPPF) paragraphs 174, 179 and 180 makes provision for the delivery of biodiversity net gain. Additionally, there is a proposed 10% net gain requirement in the Environment Bill. There is currently no statutory requirement to deliver mandatory 10% biodiversity net gain as the secondary legislation to do so has not yet been brought in.

2. METHODS

2.1 Introduction

2.1.1 The biodiversity metric 3.1 is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Panks et al., 2022).

2.1.2 This study has been carried out as a desk-based exercise, using the results of field surveys carried out at the site by Simply Ecology and Envirotech between 2012 and 2022 and a Landscape Plan for infrastructure works provided by the client.

2.1.3 Maps of the pre-construction habitats from the ecological appraisal in 2022 are shown in Appendix A. These are referenced Figure 7a-f.

2.1.4 The Phase 1 habitat map from Simply Ecology (2012) is also shown in Appendix A.

2.1.5 An indicative masterplan and landscape plan have also been prepared for the wider site which will form an outline planning application. Whilst the outline scheme is not fixed, calculations have been made based upon it. Landscaping plans SF 3236 LM01 Rev F, SF 3236 LM02 Rev F, SF 3236 LM03 Rev E and SF 3236 LM04 Rev E and SF 3236 LM05 Rev F are used for this assessment. These are included in Appendix B.

2.1.6 Full calculations for the Phase 1 Infrastructure works are based on the current plan for a full planning application which is 21017-FRA-Z1-XX-DR-A-90-1003 which is cross referenced with landscaping plans SF 3236 LM01 Rev F, SF 3236 LM02 Rev F and SF 3236 LM04 Rev E. These are included in Appendix B.

2.2 Biodiversity Assessment Methods

2.2.1 To calculate biodiversity units for the site and assess any changes arising from the proposed development this study uses methods set out the latest Biodiversity Metric 3.1 user guide (Panks et al., 2022).

2.2.2 The biodiversity metric uses three core measurements:
- Habitat area

- Length of linear terrestrial habitats
- Length of linear aquatic habitats.

2.2.3 Consequently, a site can have three biodiversity unit values, which are assessed using the same metric, but cannot be summed together.

2.2.4 Habitat area is multiplied by several factors that indicate its quality: distinctiveness, condition, strategic location and connectivity, and this gives its biodiversity unit value. This can be used for existing and future created habitats. In addition, when habitats are to be enhanced or newly-created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).

Habitat Distinctiveness

2.2.5 Habitats are classified using the phase 1 habitat survey methodology (JNCC 2010) or the UK habitat classification system (Butcher et al., 2020).

2.2.6 The metric pre-assigns each habitat type to a distinctiveness band according to its distinguishing features, i.e. species richness, rarity (at local, regional, national and international scales), and the degree to which it supports species rarely found in other habitats. Under exceptional circumstances, professional judgement can be used, and the habitat distinctiveness of a habitat can be altered up or down from the preassigned value. Any alterations must then be fully explained using evidence relevant to the site, e.g. an increase in distinctiveness because of rare flora or fauna or a decrease in distinctiveness because of significant damage to the habitat.

Habitat Condition

2.2.7 Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The biodiversity metric 3.1 technical supplement (Panks et al., 2022) contains condition sheets for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate or poor condition.

Strategic Location

2.2.8 Strategic location - sometimes called 'strategic significance' – works at a landscape scale, allowing additional value to be added to habitats in 'priority' or 'biodiversity target areas'. They include statutory and non-statutory sites and other areas with biodiversity value or potential, and they are mainly identified from local plans and objectives. If a habitat is within such a target area, a multiplier is applied to increase its value.

Difficulty of Creation and Restoration

2.2.9 The risks associated with creating new or enhancing existing habitats, are known as difficulty factors; for example, where habitats fail to establish owing to natural changes in local conditions, incorrect management or for unknown reasons. The biodiversity metric 3.1 contains default values for each habitat based on the average difficulty of

creating or enhancing a habitat. Under exceptional circumstances, these can be modified, but any deviation from the default value must be fully justified.

Time to Target Condition

2.2.10 There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity value for a time. The biodiversity metric 3.1 preassigns the time to target condition based on good practice and typical conditions, and assigns a multiplier based on the number of years required to achieve it.

2.2.11 Using bespoke techniques under unique conditions, or creating compensation habitats prior to impacts taking place, the time to target condition can be adjusted. Any changes must again be fully justified.

Off-site Risk

2.2.12 Sometimes it is not possible to compensate adequately for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is a significant distance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation.

3. BIODIVERSITY ASSESSMENT

3.1 Biodiversity Baseline

3.1.1 The entire site was overflown with a drone in April 2022. This provided up to date, high resolution imagery of the site. An orthomosaic spatially referenced map was created from this imagery and the redline development boundary plotted to it.

3.1.2 Simply Ecology (2012) mapped habitats on the site at a low resolution and not onto a spatially referenced map. Google earth imagery from 2017, the last imagery taken before site development commenced, was therefore georeferenced against the orthomosaic spatially referenced map created in 2022. Due to the 2022 imagery being taken at a 90 degree angle directly downwards, and google earth being taken at an oblique angle, there is a slight discrepancy in the georeferencing to the site boundaries. The redline boundary was taken to be that plotted on the 2022 imagery.

3.1.3 The redline boundary is plotted to the inside edge of hedgerows to the site boundary, this is inside the redline planning boundary. This is undertaken so as not to account for the "area" taken by boundary hedgerows which is a linear rather than area habitat so subject to a differing treatment in the metric. Hedgerows on the redline boundary were included in the BNG calculations for linear habitats.

3.1.4 The habitats mapped by Simply Ecology (2012) were then plotted over the habitat areas visible on the 2017 imagery with the higher resolution 2022 imagery used for clarification of habitat areas where they appeared similar in 2022 as 2017.

3.1.5 Simply Ecology (2012) did not undertake habitat condition assessments. Habitat condition assessment for BNG were therefore based upon the habitat condition found in 2022, where the habitats were the same type and in the same location. Where they differed, the descriptions used by Simply Ecology (2012) were used to evaluate likely habitat conditions pre-development in 2017. Notably a number of hedges, ponds and woodland had been removed between 2017 and 2022 and retrospective condition assessments have been made.

3.1.6 Grassland areas were split between those inside and those outside the Lancashire Grassland Network.

3.1.7 Grassland habitat has been split into two categories.

3.1.8 Marshy grassland has been classified as "other neutral grassland" being wet meadow with frequent rush but not waterlogged, G3C8.

3.1.9 Improved and semi-improved grassland has been classified as "modified grassland"

"Palatable grasses dominate mainly Rye grasses Lolium spp., Timothy Phleum pratense, Cock's-foot Dactylis glomerata, Crested Dog's-tail Cynosurus cristatus, Yorkshire Fog Holcus lanatus. Grass cover usually over 75%. Broadleaved species restricted mainly to White Clover Trifolium repens, Creeping Buttercup Ranunculus repens, Greater Plantain Plantago major, Dandelion Taraxacum officinale, Broad-leaved Dock Rumex obtusifolius and Chickweed Stellaria media. Fertile but wetter situations may support occasional Soft Rush Juncus effusus or Hard Rush Juncus inflexus, Floating Sweet Grass Glyceria

fluitans, Creeping Bent Agrostis stolonifera and Rough Meadow-grass Poa trivialis, but accompanying species will always indicate high fertility. Species poor <9 species m-2.", G4

3.1.10 A number of hedges occur on the site, some of which have and or will be lost. Hedges are classified as linear habitats and measured by their length. The area hedges take up, once lost, must however be accounted for in the metric in order to ensure the pre and post area habitats match. To account for this area habitats were measured to the edge of hedge canopies. Bare ground, in poor condition, was then used as a proxy for the area hedges occur on. This bare ground would be converted to another habitat type as part of the metric calculations post development.

3.1.11 Pre-development 2017 habitats have been input into the Defra Biodiversity Metric 3.1 calculator and indicate a total of 128.99 Habitat units, 48.30 Hedgerow units and 0.72 River units. The full biodiversity assessment calculation can be found in the Excel document 'Biodiversity Metric 3.1 Lancashire Central Full Site 2017 R6'.

3.1.12 The condition assessments for each of the area, linear and river habitats are presented in Appendix C. No deviations have been made from the default methods for baseline habitats assessment

3.2 Post-development Habitat Creation and Enhancement

3.2.1 For the entire site, based on the 2017 habitats, the Illustrative layout has been used to identify that there will be one retained habitat area and 10 new habitat areas.

3.2.2 The habitat which is retained is scrub to the banks of the M65. This is outside the development area but within the redline boundary.

3.2.3 Whilst grassland and ponds will feature within the proposed scheme, it is likely these areas will be lost through ground works, then re-created. No habitats are therefore classified as "enhanced".

3.2.4 It is likely that some habitat areas could be retained and enhanced, which would generate a higher final net gain. A worst-case scenario of loss and recreation is however used in these calculations.

3.2.5 2.31km of hedge is lost, 3.22km retained, 3.64km of hedge is created. Whilst retained hedges, principally to the site boundary and footpaths could be enhanced, highways safety may not allow them to be grown taller or wider than existing. No hedgerows are therefore classified as "enhanced". Should retained hedgerows be enhanced this would generate a higher final net gain. A worst-case scenario of loss, retention and or creation is however used in these calculations

3.2.6 0.422km of ditch is lost and 0.68km of ditch is created. All of the ditches on site are liable to be re-aligned/ modified but overall lengths will increase. No ditches will be "enhanced".

3.2.7 All area habitats have been put into "moderate" condition where it is possible to condition score other than a default level. This is judged appropriate given the final layout is unknown and a management plan not yet prepared. It is likely that some areas

could achieve a "good" condition which would result in a higher net gain but also some isolated pockets may be on "poor" condition.

3.2.8 All new native hedgerows have been put into "moderate" condition and all ornamental hedges "poor" condition. This is judged appropriate given the final layout is unknown and a management plan not yet prepared. It is likely that some hedges could achieve a "good" condition which would result in a higher net gain.

3.2.9 All ditches have been put into "poor" condition given that they are associated with SUDS and built infrastructure. It is unlikely ditches could achieve a "moderate" or "good" condition due to encroachment.

3.2.10 The post development grassland areas are all recorded as outside the Lancashire grassland network, even though some grassland is likely to be within it. This lowers the final grassland habitat unit values but takes a worst-case scenario based on the final landscape scheme not being known.

3.2.11 These figures have been put in to the Biodiversity Metric 3.1 and would comprise a total of 158.06 Habitat units, 46.15 Hedgerow units and 0.98 River units (Table 1). This results in a small loss in hedgerow units and does not meet trading rules due to an overall loss of woodland and scrub habitat.

3.2.12 Based on the indicative layout, in order to show that a gain is possible in hedgerow units and trading rules are satisfied, offsite compensation may be required and or additional planting provided in the later, outline, phases of development.

3.2.13 This would involve the creation of 1ha of broadleaf woodland in moderate condition and 0.6ha of mixed scrub in moderate condition. 400m of native hedgerow with trees would be planted to its boundary. This will be undertaken in the later phases of development and or offsite.

3.3 Change in Biodiversity Value

3.3.1 Under the current proposals set out in the Illustrative Masterplan for the entire site, which is not currently fixed and indicative only, as well as the provision of 1.6ha of offsite area, there will be a GAIN of 34.57 (26.80%) biodiversity area units, and a GAIN of 0.09 (0.19%) hedgerow units and a GAIN of 0.27 (+37.2%) River Units. This is shown in Table 1. Trading rules are satisfied.

3.3.2 Trading rules are satisfied for Low and High distinctiveness habitat areas. Trading rules are not satisfied for moderate distinctiveness habitat areas. There is a deficit for scrub and for woodland.

3.3.3 This is equivalent to 1Ha of broadleaf woodland in moderate condition or 0.6Ha of mixed scrub in moderate condition.

3.3.4 Only one phase of development has been submitted with a full landscaping plan. Later phases of development are outline only. The later phases of development are in excess of 1Ha and as such additional landscaping including woodland and scrub can be provided within them, if required, as each phase is brought forward.

3.3.5 The calculations presented at this stage of the application do not account for habitat banking. That is to say that the significant infrastructure landscaping which is proposed, will result in a surplus in units over the initial phase of development and will also appreciate in value before the later phases are brought forward. Calculations presented are based on the habitat value at Year 0, rather than at a higher value, when later phases of development are brought forward.

3.3.6 It should be noted that woodland and scrub which has been previously cleared, and calculated in the BNG scores retrospectively, for the current proposal, was lost prior to 30th January 2020. When BNG becomes mandatory under the Environment Act, the loss of woodland and scrub prior this date would not be factored into the score. The client has however decided to try and use pre-clearance values as a target for the current scheme, these being higher than those which occur should post 2020 habitat values be used.

3.3.7 Overall we consider the later phases of development which remain in outline, more than provide sufficient scope for provision of the required BNG and habitat types.

Table 1. *Change in Biodiversity Units Calculation entire site- landscape scheme and layout not fixed*

On-site baseline	Habitat units	128.99
	Hedgerow units	48.30
	River units	0.72
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	158.06
	Hedgerow units	46.15
	River units	0.98
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units	22.53%
	Hedgerow units	-4.45%
	River units	37.20%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	2.24
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	29.06
	Hedgerow units	0.09
	River units	0.27
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	22.53%
	Hedgerow units	0.19%
	River units	37.20%
Trading rules Satisfied?	**No - Check Trading Summary ▲**	

3.4 Monitoring

3.4.1 Baseline values for the area of the site subject to a detailed application will be as per the current assessment. Additional assessment of later phases of work will be required to assess their baseline condition at the time each phase of development is brought forward. The condition of each habitat subject to BNG should be as at the time planning permission for each phase is determined.

3.4.2 During the construction phase, management of habitat areas will be the responsibility of the developer. Once handover has been achieved habitat areas will be the responsibility of a management company, setup and run by the site users. This management company will be ultimately responsible for management and funding of the habitat areas via a service charge. Monitoring of the habitat areas will be undertaken by a third-party ecological contractor to be appointed by the management company. It is envisaged monitoring will be undertaken in Yr1, Yr2, Yr3, Yr5, Yr10 and every 5 years thereafter. Habitat areas will be assessed against the pre-development target condition scores.

3.4.3 Reports on habitat condition and actions required to achieve target condition will be provided to the Local Authority.

4. REFERENCES

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020), UK Habitat Classification – Habitat Definitions V1.1 at http://ukhab.org

Local Government Association (2022). Biodiversity Net Gain FAQs - Frequently Asked Questions

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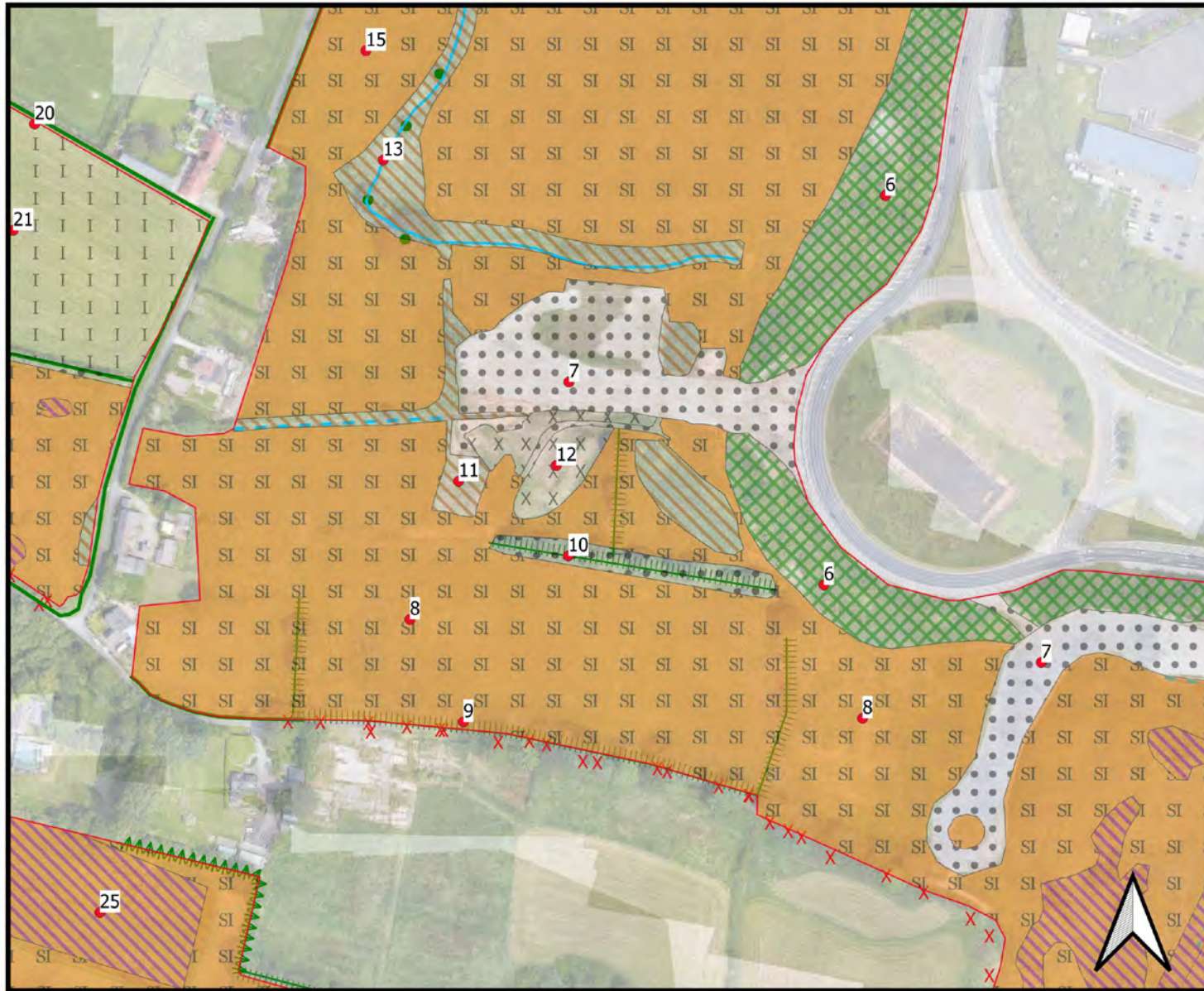
APPENDIX A – BASELINE HABITATS

Legend

- Boundary
- Target Note
- Marsh/Marshy Grassland
- Tall Ruderal
- Bare Ground
- Scrub - Dense/continuous
- Standing Water
- Neutral Grassland - Semi-improved
- Marginal and inundation - Inundation vegetation
- Intact Hedge - Species-poor
- Dry Ditch
- Himalayan balsam

Figure 7a

Phase 1 Habitat Map

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Figure 7b

Phase 1 Habitat Map

Legend:

- Boundary
- Target Note
- Improved Grassland
- Marsh/Marshy Grassland
- Tall Ruderal
- Bare Ground
- Cultivated/Disturbed Land - Ephemeral/short perennial
- Scrub - Dense/continuous
- Neutral Grassland - Semi-improved
- Hedge and Trees - Native Species-rich
- Hedge and Trees - Species-poor
- Intact Hedge - Species-poor
- Dry Ditch
- Running Water
- Himalayan balsam
- Himalayan balsam

envirotech

Figure 7c

Phase 1 Habitat Map

Legend:
- Boundary
- Target Note
- Improved Grassland
- Marsh/Marshy Grassland
- Tall Ruderal
- Bare Ground
- Cultivated/Disturbed Land - Ephemeral/short perennial
- Scrub - Dense/continuous
- Neutral Grassland - Semi-improved
- Hedge and Trees - Species-poor
- Intact Hedge - Species-poor
- Dry Ditch
- Running Water
- (Parkland/scattered Trees - Broad-leaved)

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Legend

- Boundary
- Target Note
- Improved Grassland
- Marsh/Marshy Grassland
- Tall Ruderal
- Bare Ground
- Cultivated/Disturbed Land - Ephemeral/short perennial
- Neutral Grassland - Semi-improved
- Hedge and Trees - Species-poor
- Intact Hedge - Species-poor
- Dry Ditch
- Running Water
- (Parkland/scattered Trees - Broad-leaved)
- Himalayan balsam

Figure 7d

Phase 1 Habitat Map

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Legend

- Boundary
- Target Note
- Marsh/Marshy Grassland
- Bare Ground
- Standing Water
- Neutral Grassland - Semi-improved
- Woodland - Broad-leaved Semi-Natural
- Marginal and inundation - Inundation vegetation
- Hedge and Trees - Native Species-rich
- Hedge and Trees - Species-poor
- Intact Hedge - Species-poor
- Dry Ditch
- Himalayan balsam

Figure 7e

Phase 1 Habitat Map

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Figure 7f

Phase 1 Habitat Survey

Legend:

- Boundary
- Target Note
- Improved Grassland
- Marsh/Marshy Grassland
- Tall Ruderal
- Bare Ground
- Cultivated/Disturbed Land - Ephemeral/short perennial
- Scrub - Dense/continuous
- Standing Water
- Neutral Grassland - Semi-improved
- Woodland - Broad-leaved Semi-Natural
- Marginal and inundation - Inundation vegetation
- Hedge and Trees - Native Species-rich
- Hedge and Trees - Species-poor
- Intact Hedge - Species-poor
- Dry Ditch
- Running Water
- (Parkland/scattered Trees - Broad-leaved)
- Himalayan balsam

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Cuerden Strategic Site

Plan 2: Phase 1 Habitat map and Target Notes.

Legend

Target Note
Site Boundary
Semi-improved Neutral Grassland   SI
Improved Neutral Grassland   I
Arable   A
Marshy Grassland
Scrub
Mixed Woodland Plantation
Hedgerow
Defunct Hedge
Scattered Trees
Standing Water
Running Water
Bare Ground
Fence
Himalayan Balsam   Ig
Quarry   Q
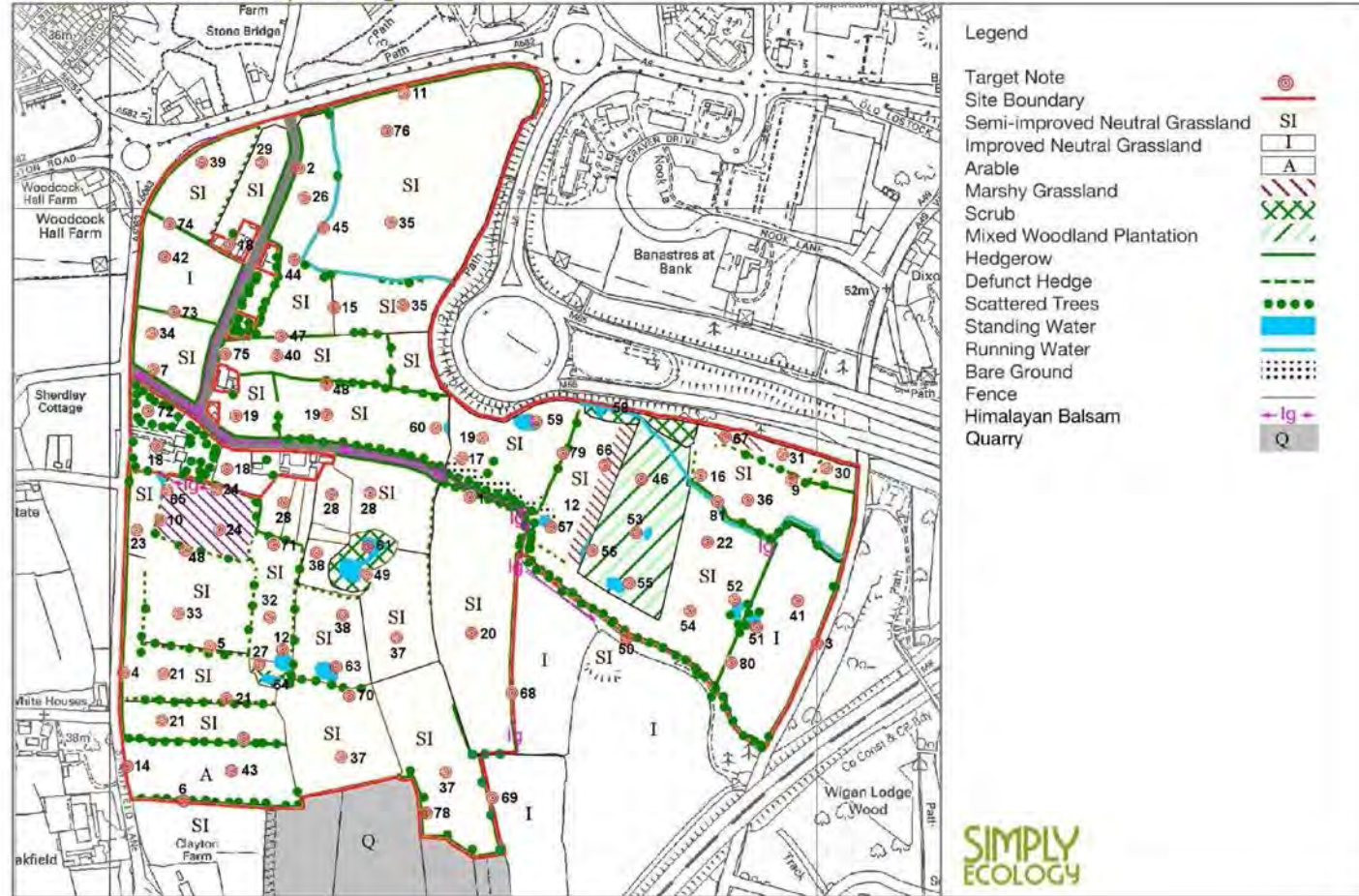
Simply Ecology Limited – Ecological Surveys - December 2012
Root://lLancscc/Simply Ecology Cuerden Ecology Surveys Dec 12 final.doc

Boundary
Improved Grassland
Marsh/Marshy Grassland
Bare Ground
Scrub - Dense/continuous
Standing Water
Neutral Grassland - Semi-improved
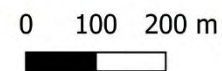Woodland - Mixed Plantation

Habitats mapped onto 2017 imagery

0   100   200 m

envirotech
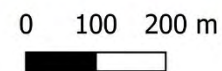
Boundary

Hedge and Trees - Species-poor

Intact Hedge - Species-poor

Running Water

Hedge and Trees - Native Species-rich

Hedges and ditched mapped onto 2017 imagery

0   100   200 m

envirotech
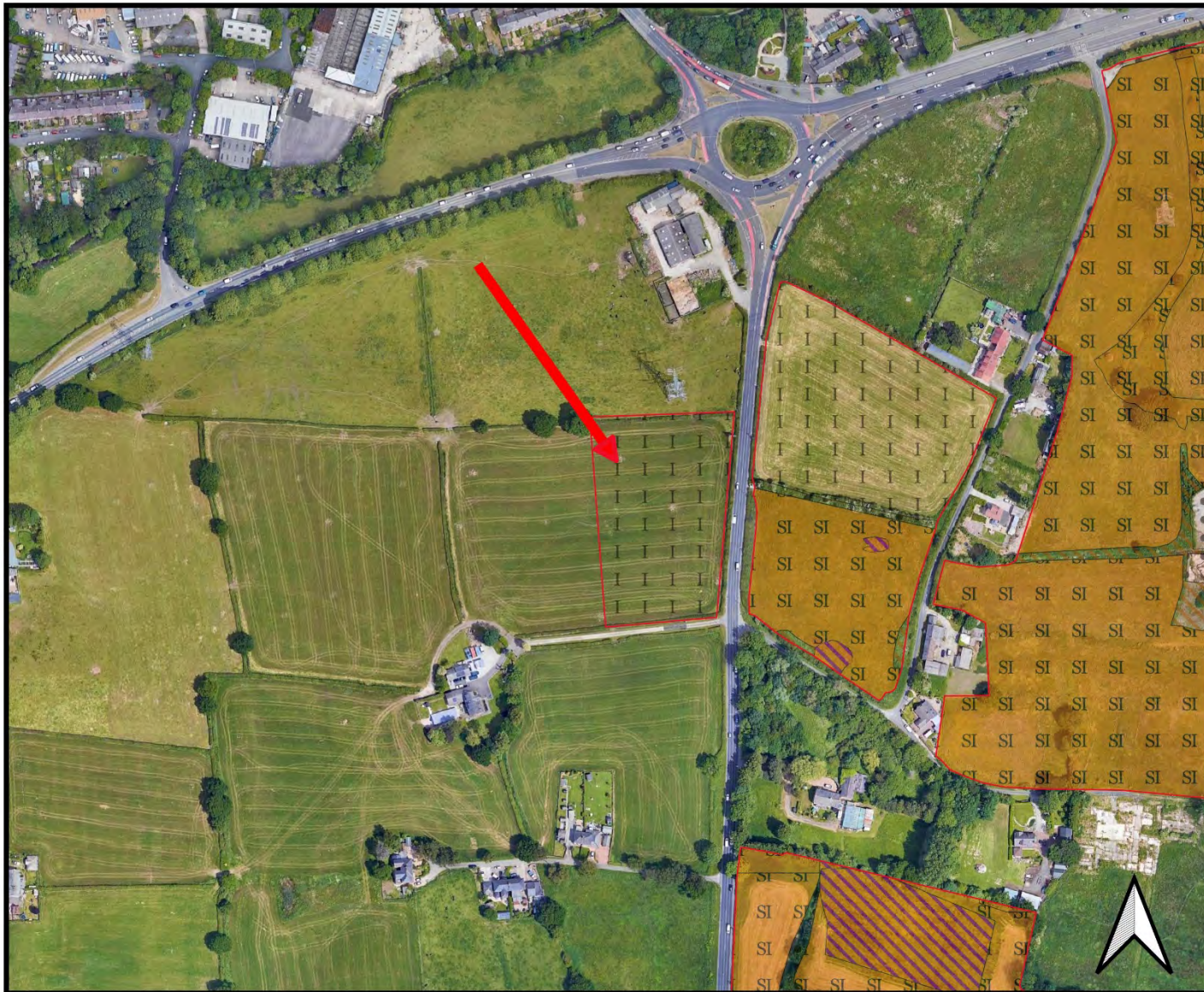
Offsite
Mitigation area

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APPENDIX B – LANDSCAPE PLANS

A582 Lostock Ln

A6 Lostock Ln

Old School Ln

M65

M65

A5083 Stanifield Lane

A6 Wigan Rd

M6 Preston Bypass

Site Boundary Key:

——— Application Site Boundary

– – – Future Development Plot
        Boundary

MAPLE GROVE
DEVELOPMENTS

Lancashire
County
Council

fletcher rae

Architects | Master Planners | Designers

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N

REFER TO GREEN INFRASTRUCTURE PHASE A LM01

REFER TO GREEN INFRASTRUCTURE PHASE A LM01

REFER TO PHASE B LM06

Planting Schedule

DESIGN RISK: PROJECT-SPECIFIC SIGNIFICANT RISKS

Key
SL Soft Landscape

FOR INFORMATION

SMEEDEN FOREMAN

Project: Lancaster Central

Landscape Proposals - Phase A

DESIGN RISK: PROJECT-SPECIFIC SIGNIFICANT RISKS

Key
SF Soft Landscape

Planting Schedule

REFER TO PHASE A LM02

Planting Schedule

A6093 STANFIELD LANE

Existing hedge retained
On success to maintain hedge

Future Phase

Key
SF Soft Landscape

DESIGN RISK PROJECT-SPECIFIC SIGNIFICANT RISKS

SMEEDEN FOREMAN

Lancashire Central

Landscape Proposals - Phase D

SF 3235   LMDS

APPENDIX C - CONDITION ASSESSMENT TABLES

Hedge Number	Phase 1 Habitat	UK Hab Equivalent	Hedgerow Criteria Score based on 2022 assessment										Condition Assessment
			A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*	
A	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
B	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
F	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
G	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
H	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
H1	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
K	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
L	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	F	P			Good
M	Intact Species-poor hedgerow	Native Hedgerow	F	F	P	F	P	P	F	P			Poor
N	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	F	P	P	P	P	P	P	P	Good
O	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
P	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	F	F	P	P	F	P	P	F	Poor
R	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good

Hedge Number	Phase 1 Habitat	UK Hab Equivalent											Condition Assessment
Y	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P			Good
ZA	Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	F	P			Good
ZB	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	F	F	P	P	P	P	P	P	Poor
ZC	Intact species-rich hedgerow with trees	Native Species Rich Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
ZD	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
ZE	Intact species-rich hedgerow with trees	Native Species Rich Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
ZF	Intact species-rich hedgerow with trees	Native Species Rich Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
ZG	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
ZH	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	F	P	P	Good
ZJ	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	P	P	P	Good
ZK	Intact species-poor hedgerow with trees	Native Hedgerow with trees	P	P	P	P	P	P	P	F	P	P	Good

Hedge Number	Phase 1 Habitat	UK Hab Equivalent	Hedgerow Criteria Score based on 2012 assessment Hedges removed prior to 2022	Condition Assessment
Q	Intact species-poor hedgerow	Native Hedgerow	Description and photos suggest relic gappy hedge.	Poor
S	Intact species-poor hedgerow with trees	Native Hedgerow with trees	"The hedge was no longer functional and post and wire fence maintained the boundary between the fields. The ground flora was denuded and sparse with many areas of bare ground. The hedge was very narrow at its base due to the tall and leggy nature of the hawthorn and the hard grazing right up to and around the stems"	Poor

T	Intact species-poor hedgerow with trees	Native Hedgerow with trees	No information available assumed moderate	Moderate
U	Intact species-poor hedgerow with trees	Native Hedgerow with trees	Gappy hedgerow in the NE part of the site with dominant hawthorn and blackthorn and some occasional elder with rare holly, honeysuckle and dog rose. Mature trees scattered along the hedge were sycamore and Pedunculate oak	Moderate
V	Intact species-poor hedgerow with trees	Native Hedgerow with trees	Managed hawthorn hedge approximately 2m high with a scattering of pedunculate oak and mature sycamore. Here the hedge was not cut due to the presence of the trees, so the hawthorn had grown approx 4 metres high. The hedge had multi-layered stems showing signs of historical hedge-laying management. Ground flora was poor. very occasional common male fern, red campion and foxglove in the more protected areas away from grazing	Good
W	Intact species-poor hedgerow	Native Hedgerow	No information available assumed moderate	Moderate
X	Intact species-poor hedgerow	Native Hedgerow	Managed hedge approximately, 1.8m high dominated by hawthorn with a handful of elder and sycamore (cut so forming part of the hedge not over-storey).	Moderate

UK Hab Equivalent	Condition Sheet	Other Habitat Criteria Score									Total Score	Condition Assessment	Notes
		C1	C2	C3	C4	C5	C6	C7	C8	C9			
Ditch	Ditches	P	F	P	F	P	F	F	F		3	Poor	See appended sheet for details
Modified Grassland	GRASSLAND: Low distinctiveness	F	F	P	P	F	P	F			3	Poor	Improved grassland and poor semi-improved grassland. Regular management/ mowing. Drainage, species diversity poor.
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	P	F	F	P	P	F				3	Moderate	Marshy grassland areas
Pond	Pond (woodland)	P	F	F	P	P	P	P	P	P	7	Moderate	Standing water- TN3
Pond	Pond	P	F	P	F	P	P	P			5	Moderate	Standing water- TN35
Pond	Pond	P	F	P	P	P	P	P			6	Moderate	Standing water- TN53 and 55 (SE)
Pond	Pond	F	F	P	F	P	P	P	F	F	4	Poor	Wet areas no ephemeral- TN32
Pond	Pond	P	F	P	P	P	P	P			6	Moderate	Standing water- TN57 and 59 (SE)
Scrub	Scrub	P	P	P	F	F					3	Moderate	Roadside Scrub – TN6
Vacant/derelict land/bareground	URBAN	F	F	P							1	Poor	Bare ground at access points to fields

Key:
P – Criteria passed
F – Criteria failed

Appendix Table C2: Condition Assessment for Area Habitats

Phase 1 Habitat	UK Hab Equivalent	Condition Sheet	Other Habitat Criteria Score													Total Score	Condition Assessment	Notes
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13			
Semi-natural broadleaved woodland	Lowland mixed deciduous woodland	WOODLAND AND FOREST	2	2	3	2	3	2	2	2	1	2	1	2	3	27	Poor	
Mixed woodland	Other woodland Mixed	WOODLAND AND FOREST	2	2	3	2	3	1	1	2	1	2	1	1	2	23	Poor	

Key to woodland condition assessment:
3 (points) = Good
2 (points) = Moderate
1 (point) = Poor

Total score >32 – Good
Total score 26 – 32 – Moderate
Total score <26 – Poor

Appendix Table C3: Woodland Condition Assessment

Condition Sheet: DITCH Habitat Type

UKHab Habitat Type(s)

Rivers and streams - Ditches

Site name/location	Lancashire Central	Onsite/offsite	Onsite
Central grid reference of habitat	Ditch	Unique polygon reference	
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description

Artificially created, linear water-conveyancing features that are less than 5 m wide and likely to retain water for more than 4 months of the year. Their hydraulic function is primarily for land drainage, and although partially or fully connected to a river system, they would not have been present without human intervention

[Note: some heavily engineered ditches may actually be part of the river system (usually part of the headwater system). If there is uncertainty, consult historic maps, LIDAR data and riverine specialists]

Condition Assessment Criteria		Condition Achieved (Y/N)	Notes/Justification
1	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	Y	Clear water flow
2	A range of emergent, submerged and floating leaved plants are present. As a guide >10 species of emergent, floating or submerged plants in a 20 m ditch length.	N	No emergent vegetation
3	There is less than 10% cover of filamentous algae and/or duckweed (these are signs of eutrophication).	Y	No algae
4	A fringe of marginal vegetation is present along more than 75% of the ditch.	N	No marginal vegetation, ditch steep sided
5	Physical damage evident along less than 5% of the ditch, such as excessive poaching, damage from machinery use or storage, or any other damaging management activities.	Y	No damaged
6	Sufficient water levels are maintained; as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.	N	Water very shallow
7	Less than 10% of the ditch is heavily shaded.	N	Steel sided ditch fully shaded
8	There is an absence of non-native plant and animal species[1].	N	Some Himalayan Balsam

		Number of criteria passed	

Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓	
Passes 8 of 8 criteria	Good (3)		
Passes 6 or 7 of 8 criteria	Moderate (2)		
Passes 0, 1, 2, 3, 4 or 5 of 8 criteria	Poor (1)	X	

Suggested enhancement Interventions to improve condition score

Notes

Footnote 1 - Any species included on the Water Framework Directive UKTAG GB High Impact Species List should be absent.

• Frequently occurring non-native plant species include water fern *Azolla spp.*, Australian swamp stonecrop *Crassula helmsii*, parrot's feather *Myriophyllum aquaticum*, floating pennywort *Hydrocotyle ranunculoides*, Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* (on the bank).

• Frequently occurring non-native animals include signal crayfish *Pacifastacus leniusculus*, zebra mussels *Dreissena polymorpha*, killer shrimp *Dikerogammarus villosus*, demon shrimp *Dikerogammarus haemobaphes*, carp *Cyprinus carpio*.

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)				
UKHab Habitat Type(s)				
Grassland - Modified grassland				
Site name/location	Lancashire Central		Onsite/offsite	Onsite
Central grid reference of habitat			Unique polygon reference	
Limitations (if applicable)			Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description
See UKHab

Condition Assessment Criteria		**Condition Achieved (Y/N)**	**Notes/Justification**
1	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type. **NB - this criterion is essential for achieving moderate condition.**	N	Species poor
2	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.	N	Sward all same length
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	No scrub
4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y	Limited damage
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	N	No bare ground
6	Cover of bracken less than 20%.	Y	No bracken
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	N	Some Himalayn Balsam

			Essential criterion 1 achieved (Y/N)	N
			Number of criteria passed	3

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ✓**	
Passes 6 or 7 of 7 criteria including passing essential criterion 1	Good (3)		
Passes 4 or 5 of 7 criteria including passing essential criterion 1	Moderate (2)		
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria but failing criterion 1	Poor (1)	X	

Suggested enhancement interventions to improve condition score

Notes

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)			
UKHab Habitat Type(s)			

Grassland - Lowland calcareous grassland
Grassland - Lowland dry acid grassland
Grassland - Lowland meadows
Grassland - Other lowland acid grassland
Grassland - Other neutral grassland
Grassland - Tall herb communities (H6430) [Note Tall herb habitat that does not meet the Annex 1 definition should be recorded as "Other neutral grassland"]
Grassland - Upland acid grassland
Grassland - Upland calcareous grassland
Grassland - Upland hay meadows
Sparsely vegetated land - Calaminarian grassland

Site name/location	Marshy Grassland	Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	TN24 (SE) 25 (Env)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description

See UKHab

	Condition Assessment Criteria	Condition Achieved (Y/N)	Notes/Justification
1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. **NB - This criterion is essential for achieving moderate condition for non-acid grassland types only.**	Y	Rushes present
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N	Sward all same length
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	N	No bare ground
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Y	No bracken
5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition1 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.	Y	

Additional Group (Non-acid types only)			
6	There are greater than 9 species per metre squared. **NB - This criterion is essential for achieving good condition (non-acid grassland types only).**		

Criterion 1 Achieved (Essential for good condition for non-acid grassland) (Y/N)			N
		Number of criteria passed	3

Condition Assessment Result	Condition Assessment Score	Score Achieved */ʺ	
Acid Grassland Types			
Passes 5 of 5 criteria	Good (3)		
Passes 3 or 4 of 5 criteria	Moderate (2)		
Passes 0, 1 or 2 of 5 criteria	Poor (1)		
Non-acid grassland Types			
Passes 5 of 6 criteria, including essential criterion 1 and 6.	Good (3)		
Passes 3 or 4 of 6 criteria, including essential criterion 1	Moderate (2)	X	
Passes 0, 1, 2 criteria of 6 criteria; OR Passes 3 or 4 criteria excluding criterion 1 and 6	Poor (1)		

Suggested enhancement interventions to improve condition score			

Notes			

Footnote 1 - Species indicative of sub-optimal condition for this habitat type include:
Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* , cow parsley *Anthriscus sylvestris* .

Condition Sheet: POND Habitat Type

Lakes - Ponds (priority habitat)
Lakes - Ponds (non-priority habitat)
Lakes - Temporary lakes, ponds and pools [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes]
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]

Site name/location		Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	Target Note 51/52 (SE) 3 (Env)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description

See UKHab

Other than for non-priority ponds, which are those which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds

Condition Assessment Criteria	Condition Achieved (Y/N)	Notes/Justification
CORE CRITERIA - applicable to all ponds (woodland[1] and non-woodland):		
1 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.	Y	
2 There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	N	
3 Less than 10% of the pond is covered with duckweed or filamentous algae.	N	
4 The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	Y	
5 Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Y	
6 There is an absence of non-native plant and animal species[2].	Y	
7 The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Y	
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:		
8 In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds)[3], should cover at least 50% of the pond area that is less than 3 m deep.	Y	
9 The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.	Y	
	Number of criteria passed	

Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓	
If 8 criteria assessed (woodland ponds):			
Passes 7 of 7 criteria	Good (3)		
Passes 5 or 6 of 7 criteria	Moderate (2)		
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)		
If 10 criteria assessed (non-woodland ponds):			
Passes 9 of 9 criteria	Good (3)		
Passes 6, 7 or 8 of 9	Moderate (2)	X	
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)		

Suggested enhancement interventions to improve condition score

Condition Sheet: POND Habitat Type

Lakes - Ponds (priority habitat)
Lakes - Ponds (non-priority habitat)
Lakes - Temporary lakes, ponds and pools [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes]
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]

Site name/location		Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	Target Note 12 (SE) 35 (Env)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description

See UKHab

Other than for non-priority ponds, which are those which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds

Condition Assessment Criteria	Condition Achieved (Y/N)	Notes/Justification
CORE CRITERIA - applicable to all ponds (woodland[1] and non-woodland):		
1 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.	Y	Clear water
2 There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	N	Pond is next to modified grassland
3 Less than 10% of the pond is covered with duckweed or filamentous algae.	Y	No duckweed
4 The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	N	Connected to another pond
5 Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Y	
6 There is an absence of non-native plant and animal species[2].	Y	
7 The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Y	
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:		
8 In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds)[3], should cover at least 50% of the pond area that is less than 3 m deep.		
9 The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.		
	Number of criteria passed	

Condition Assessment Result	Condition Assessment Score	Score Achieved ✗/✓	
If 8 criteria assessed (woodland ponds):			
Passes 7 of 7 criteria	Good (3)		
Passes 5 or 6 of 7 criteria	Moderate (2)	X	
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)		
If 10 criteria assessed (non-woodland ponds):			
Passes 9 of 9 criteria	Good (3)		
Passes 6, 7 or 8 of 9	Moderate (2)		
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)		

Suggested enhancement interventions to improve condition score

Condition Sheet: POND Habitat Type			
UKHab Habitat Type(s)			
Lakes - Ponds (priority habitat) Lakes - Ponds (non-priority habitat) Lakes - Temporary lakes, ponds and pools [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes] Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]			
Site name/location		Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	Target Note 27 (SE) 32 (Env)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	
Habitat Description			

See UKHab

Other than for non-priority ponds, which are those which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds

Condition Assessment Criteria	**Condition Achieved (Y/N)**	**Notes/Justification**
CORE CRITERIA - applicable to all ponds (woodland[1] and non-woodland):		
1	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.	N	Dry
2	There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	N	Adjacent modified grassland
3	Less than 10% of the pond is covered with duckweed or filamentous algae.	Y	
4	The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	N	Connected to another pond
5	Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Y	
6	There is an absence of non-native plant and animal species[2].	Y	
7	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Y	
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:		
8	In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds)[3], should cover at least 50% of the pond area that is less than 3 m deep.	N	Pond dry
9	The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.	N	Shaded by scrub
		Number of criteria passed	

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved x/✓**	
If 8 criteria assessed (woodland ponds):			
Passes 7 of 7 criteria	Good (3)		
Passes 5 or 6 of 7 criteria	Moderate (2)		
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)		
If 10 criteria assessed (non-woodland ponds):			
Passes 9 of 9 criteria	Good (3)		
Passes 6, 7 or 8 of 9	Moderate (2)		
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)	X	
Suggested enhancement interventions to improve condition score			

Condition Sheet: POND Habitat Type			
UKHab Habitat Type(s)			
Lakes - Ponds (priority habitat)			
Lakes - Ponds (non-priority habitat)			
Lakes - Temporary lakes, ponds and pools [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes]			
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]			
Site name/location		Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	Target Note 53 and 55 (SE)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description
See UKHab
Other than for non-priority ponds, which are those which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds

Condition Assessment Criteria		Condition Achieved (Y/N)	Notes/Justification
CORE CRITERIA - applicable to all ponds (woodland[1] and non-woodland):			
1	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.	Y	
2	There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	N	Within woodland
3	Less than 10% of the pond is covered with duckweed or filamentous algae.	Y	
4	The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	Y	
5	Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Y	
6	There is an absence of non-native plant and animal species[2].	Y	
7	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Y	
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:			
8	In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds)[3], should cover at least 50% of the pond area that is less than 3 m deep.		
9	The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.		
		Number of criteria passed	

Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓	
If 8 criteria assessed (woodland ponds):			
Passes 7 of 7 criteria	Good (3)		
Passes 5 or 6 of 7 criteria	Moderate (2)	X	
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)		
If 10 criteria assessed (non-woodland ponds):			
Passes 9 of 9 criteria	Good (3)		
Passes 6, 7 or 8 of 9	Moderate (2)		
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			

Condition Sheet: POND Habitat Type			
UKHab Habitat Type(s)			
Lakes - Ponds (priority habitat)			
Lakes - Ponds (non-priority habitat)			
Lakes - Temporary lakes, ponds and pools [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes]			
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]			
Site name/location		Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	Target Note 57 and 59 (SE)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	
Habitat Description			
See UKHab			
Other than for non-priority ponds, which are those which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds			

Condition Assessment Criteria	Condition Achieved (Y/N)	Notes/Justification
CORE CRITERIA - applicable to all ponds (woodland[1] and non-woodland):		
1 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.	Y	
2 There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	N	Adjacent modified grassland
3 Less than 10% of the pond is covered with duckweed or filamentous algae.	Y	
4 The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	Y	
5 Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Y	
6 There is an absence of non-native plant and animal species[2].	Y	
7 The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Y	
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:		
8 In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds)[3], should cover at least 50% of the pond area that is less than 3 m deep.		
9 The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.		
	Number of criteria passed	

Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓	
If 8 criteria assessed (woodland ponds):			
Passes 7 of 7 criteria	Good (3)		
Passes 5 or 6 of 7 criteria	Moderate (2)	X	
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)		
If 10 criteria assessed (non-woodland ponds):			
Passes 9 of 9 criteria	Good (3)		
Passes 6, 7 or 8 of 9	Moderate (2)		
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			

Condition Sheet: SCRUB Habitat Type			
UKHab Habitat Type			
Heathland and shrub - Blackthorn scrub			
Heathland and shrub - Gorse scrub			
Heathland and shrub - Hawthorn scrub			
Heathland and shrub - Hazel scrub			
Heathland and shrub - Mixed scrub			
Heathland and shrub - Sea buckthorn scrub (Annex 1)			
Site name/location		Onsite/offsite	Onsite
Central grid reference of habitat		Unique polygon reference	Target Note 6 (Env)
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	
Habitat Description			

See UKHab

For sea buckthorn scrub see: Habitats Directive Annex 1 definition

	Condition Assessment Criteria	**Condition Achieved (Y/N)**	**Notes/Justification**
1	Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).	Y	
2	There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.	Y	
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Y	
4	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	N	Dense, hard edge
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	No glades
		Number of criteria passed	

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**	
Passes 5 of 5 criteria	Good (3)		
Passes 3 or 4 of 5 criteria	Moderate (2)	X	
Passes 0, 1 or 2 of 5 criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			

Condition Sheet: URBAN Habitat Type

UKHab Habitat Types

Sparsely vegetated land - Ruderal/ephemeral
Urban – Allotments
Urban – Biodiverse green roof [Use Urban condition sheet as default. Where there are areas of grassland, scrub or other habitat above the minimum mappable area threshold, record and assess these as the relevant habitat type]
Urban - Bioswale
Urban - Cemeteries and churchyards [Use Urban condition sheet as default. Where there are areas of grassland, woodland or scrub above the minimum mappable area threshold, record and assess these as the relevant habitat type]
Urban - Façade-bound green wall
Urban - Ground based green wall
Urban - Intensive green roof
Urban - Open mosaic habitats on previously developed land
Urban - Rain garden
Urban - Sustainable urban drainage feature [in the context of the Biodiversity Metric, this habitat type refers to open SUDS with vegetation and/or open water]
Urban - Vacant / derelict land / bare ground

Site name/location	Lancashire Central	Onsite/offsite	Onsite
Central grid reference		Unique polygon reference	
Limitations (if applicable)	Access points at field entrances	Metric 3.1 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	

Habitat Description

See UKHab

Condition Assessment Criteria		Condition Achieved (Y/N)	Notes/Justification
CORE CRITERIA - applicable to all urban habitat types:			
1	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	N	No vegetation
2	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife). Note that Biodiverse green roofs are exempt from this requirement, and can include non-native sedums, as set out in footnote 1.	N	No vegetation
3	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Y	No vegetation
ADDITIONAL CRITERION - only applicable to Open mosaic on previously developed land habitat types:			
4a	The site shows spatial variation, forming a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate AND pools. (a) annuals (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.		
ADDITIONAL CRITERION - only applicable to Bioswale and SUDS habitat types:			
4b	The water table is at or near the surface throughout the year. This could be open		
ADDITIONAL CRITERION - only applicable to green roof habitat types (select as necessary):			
4c1	Intensive green roofs – have a minimum of 50% native and non-native wildflowers - 70% of the roof area is soil and vegetation (including water features)		
4c2	Biodiverse green roofs - have a varied depth of 80 - 150mm at least 50% is at 150mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. To achieve Good condition some additional habitat, such as sand piles, logs etc should be present.		

Essential criterion 2+3 achieved? (must be achieved to score a good condition for non biodiverse green roofs)	(Y/N)	
	Number of criteria passed	

Condition Assessment Result	Condition Assessment Score	Score Achieved ++	
If 3 criteria assessed:			
- Passes 3 of 3 core criteria; AND - Meets the requirements for good condition within criteria 2 and 3	Good (3)		
- Passes 2 of 3 core criteria; OR - Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)		
- Passes 0 or 1 of 3 core criteria	Poor (1)	X	
If 4 criteria assessed			
- Passes 3 of 3 core criteria; AND - Meets the requirements for good condition within criteria 2 and 3; AND - Passes additional criterion 4a or 4b	Good (3)		
- Passes 2 of 3 of 4 criteria; OR - Passes 4 of 4 criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)		
- Passes 0 or 1 of 4 criteria	Poor (1)		

Suggested enhancement interventions to improve condition score +

Notes

Footnote 1: For Biodiverse green roofs only- experience has shown that a range of sedums species (native, naturalised, and non-native) support wildflowers during hot periods. Therefore, for Criteria 2 a Biodiverse green roof can have non-native sedums and still achieve Good condition.

Footnote 2: For Criteria 3 – For green roof habitat types only- Buddleja davidii should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not be planted and seeded correctly in sub-sequent years.

Condition Sheet: WOODLAND Habitat Type

UKHab Habitat Type(s)

Woodland and forest - Lowland beech and yew woodland
Woodland and forest - Lowland mixed deciduous woodland
Woodland and forest - Native pine woodlands
Woodland and forest - Other coniferous woodland
Woodland and forest - Other Scot's pine woodland
Woodland and forest - Other woodland; broadleaved
Woodland and forest - Other woodland; mixed
Woodland and forest - Upland birchwoods
Woodland and forest - Upland mixed ashwoods
Woodland and forest - Upland oakwood
Woodland and forest - Wet woodland

Site name/location	Lancashire Central	Onsite/offsite	Onsite
Habitat's Central Grid		Unique polygon	TN27 (SE) 32 (Env)
Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)		Limitations (if applicable)	

Habitat Description

See UKHab

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

Woodland Wildlife Toolkit (sylva.org.uk)

Condition Assessment Criteria

	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes/Justification
1	Age distribution of trees[1]	Three age classes present	Two age classes present	One age class present	2	
2	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland[2]	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	2	
3	Invasive plant species[3]	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	3	
4	Number of native tree species	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	2	
5	Cover of native tree and shrub species	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	3	

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6	Open space within woodland[4]	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	2	
7	Woodland regeneration[5]	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	2	
8	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high risk pest or disease present	2	
9	Vegetation and ground flora	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1	
10	Woodland vertical structure[6]	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	2	
11	Veteran trees[7]	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	1	
12	Amount of deadwood	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	2	
13	Woodland disturbance[8]	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	3	

			Total Score	27
Condition Assessment Result			**Condition Assessment Score**	**Result Achieved**
Total score >32 (33 to 39)			Good (3)	Poor
Total score 26 to 32			Moderate (2)	
Total score <26 (13 to 25)			Poor (1)	

Suggested enhancement interventions to improve condition score

Condition Sheet: WOODLAND Habitat Type

UKHab Habitat Type(s)

Woodland and forest - Lowland beech and yew woodland
Woodland and forest - Lowland mixed deciduous woodland
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Woodland and forest - Other woodland; broadleaved
Woodland and forest - Other woodland; mixed
Woodland and forest - Upland birchwoods
Woodland and forest - Upland mixed ashwoods
Woodland and forest - Upland oakwood
Woodland and forest - Wet woodland

Site name/location	Lancashire Central	Onsite/offsite	Onsite
Habitat's Central Grid		Unique polygon	Felled Woodland
Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)		Limitations (if applicable)	

Habitat Description

See UKHab

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

Woodland Wildlife Toolkit (sylva.org.uk)

Condition Assessment Criteria

	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes/Justification
1	Age distribution of trees[1]	Three age classes present	Two age classes present	One age class present	2	
2	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland[2]	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	2	
3	Invasive plant species[3]	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	3	
4	Number of native tree species	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	2	
5	Cover of native tree and shrub species	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	3	

#	Criterion	Good (green)	Moderate (yellow)	Poor (orange)	Score		
6	Open space within woodland[4]	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	1		
7	Woodland regeneration[5]	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	1		
8	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high risk pest or disease present	2		
9	Vegetation and ground flora	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1		
10	Woodland vertical structure[6]	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	2		
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13	Woodland disturbance[8]	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	2		

Total Score	23

Condition Assessment Result	Condition Assessment Score	Result Achieved
Total score >32 (33 to 39)	Good (3)	Poor
Total score 26 to 32	Moderate (2)	
Total score <26 (13 to 25)	Poor (1)	

Suggested enhancement interventions to improve condition score