



**Wildlife Trust  
Consultancies**



**Adonis Blue**  
ENVIRONMENTAL CONSULTANTS

## Furnace Farm, Cranbrook, TN17 2QZ

### Biodiversity Net Gain (BNG) Assessment



**Adonis Blue Environmental Consultants**

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## Report Verification

<b>Client</b>	Kent Wildlife Trust
<b>Site / job</b>	Furnace Farm, Cranbrook, TN17 2QZ
<b>Central Grid Reference</b>	TQ 66692 36186
<b>Report Title</b>	Biodiversity Net Gain Assessment
<b>Report Reference</b>	LM-126

## Quality Assurance

<b>Report Version</b>	<b>Date</b>	<b>Prepared By</b>	<b>Technical Review By</b>	<b>Final Review By</b>
Draft	15 May 2025	Sylvia Harmer BSc, QCIEEM  Senior Ecologist (BNG), Adonis Blue Environmental Consultants	Steve Weeks  Area Manager, Estates, Kent Wildlife Trust	#

This report has been prepared in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development” and British Standard 8683:2021 “Process for designing and implementing Biodiversity Net Gain – Specification”.

This report has been prepared by Adonis Blue Environmental Consultants for the sole use of the client.

All opinions expressed are the true and professional bona fide opinions of Adonis Blue Environmental Consultants. They do not constitute professional advice, and the client may wish to seek professional legal interpretation of the relevant wildlife legislation referenced in this report.

Any information provided by third parties and referred to within this report has not been checked or verified by Adonis Blue Environmental Consultants unless otherwise expressly stated within this document.

## EXECUTIVE SUMMARY

Adonis Blue Environmental Consultants (ABEC) was commissioned by Kent Wildlife Trust to undertake a Biodiversity Net Gain (BNG) Assessment at Furnace Farm, Cranbrook, TN3 8NA (central grid reference TQ 66692 36186).

The site has been chosen as the receptor site for offsite mitigation so that Biodiversity Net Gain (BNG) can be achieved for planning application developments that are unable to achieve on-site BNG. In these instances, the provision of a receptor site is required to generate biodiversity units to meet / exceed the requirement for delivering net gains in habitats impacted by development.

The site extends to approximately 19.10ha, comprising 6.332ha of cereal crops, 0.042ha of modified grassland, 12.394ha of other neutral grassland, 0.032ha of developed land, sealed surface, 0.06ha of lowland mixed deciduous woodland and 4 individual rural trees (1 very large, 1 large and 2 small) .

The site includes 0.127km of lines of trees, 0.136km of lines of trees with associated ditch, 0.411km of native hedgerows, 0.086km of species-rich native hedgerows, 0.051km of species-rich native hedgerows with trees, 0.106km of species-rich native hedgerows with trees and associated ditch, and 0.635km of priority river habitat.

The objectives of the BNG Assessment are to:

- Determine the baseline biodiversity unit score for the receptor site; and
- Calculate the potential increase in biodiversity units that could be achieved by implementation of appropriate landscaping proposals documented within this report.

The details of the landscaping proposals and above assumptions, together with expected after-use of the site (Section 5) result in a Biodiversity Net Gain of **65.25 habitat units (+51.81%)**.

**Please note:** The above figures are based on the likely maximum generation of biodiversity units based on the habitat creation and enhancement measures proposed within the report. The successful attainment of the Biodiversity Net Gain described is dependent on appropriate long-term management of the site, and management requirements will be included within a BNG Offset Site Management Plan.

# Contents

**EXECUTIVE SUMMARY ..... i**

**1. INTRODUCTION ..... 1**

1.1 Background..... 1

1.2 Site Context ..... 1

1.3 Planning Applications..... 1

1.4 Scope of Work ..... 1

1.5 Relevant Policy & Legislation ..... 2

1.5.1 National Planning Policy Framework 2025 ..... 2

1.5.2 Environment Act 2021 ..... 3

**2. METHODOLOGY ..... 5**

2.1 Desk Study ..... 5

2.1.1 Field Survey Methods ..... 6

2.1.2 Mapping Methods..... 6

2.1.3 Approach to Biodiversity Net Gain..... 8

2.1.4 Strategic Significance..... 8

2.1.5 Evidence of Technical Competence and Experience..... 8

2.2 Limitations..... 9

2.2.1 Field Survey ..... 9

2.2.2 The Statutory Biodiversity Metric..... 9

2.2.3 Rivers and Streams..... 9

**3. BASELINE CONDITIONS.....10**

3.1 Important Ecological Features.....10

3.2 Evidence of Baseline Data .....11

3.3 Baseline Metric Calculations .....13

3.4 Strategic Significance .....17

**4. BNG GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT .....21**

**5. PROPOSED DESIGNS.....22**

**6. BIODIVERSITY NET GAIN / LOSS .....25**

**7. MANAGEMENT AND LEGAL ARRANGEMENTS FOR SECURING THE PROJECT .....26**

**8. PROJECT IMPLEMENTATION PLAN.....26**

**9. REFERENCES .....27**



**APPENDIX A – CALCULATING CONDITION SCORES.....28**

Grassland Condition.....28

Hedgerow Condition.....31

Individual Trees Condition .....37

Line of Trees Condition .....39

Woodland Condition .....42

**APPENDIX B – RIVER CONDITION SCORES .....43**

## 1. INTRODUCTION

Adonis Blue Environmental Consultants (ABEC) was commissioned by Kent Wildlife Trust to undertake a Biodiversity Net Gain (BNG) Assessment at Furnace Farm, Cranbrook, TN3 8NA (central grid reference TQ 66692 36186) - herein termed as 'the site' - using the DEFRA Statutory Biodiversity Metric (Gov.uk, 2023).

The purpose of the report is to demonstrate how the project will deliver a measurable net gain for biodiversity in accordance with planning policy and legislation.

### 1.1 BACKGROUND

The site has been chosen as a receptor site for offsite mitigation so that Biodiversity Net Gain (BNG) can be achieved for planning application developments that are unable to achieve on-site BNG. Provision of a receptor site is required to deliver biodiversity units in order to meet / exceed the requirement for delivering net gains in habitats impacted by development.

### 1.2 SITE CONTEXT

The site is located within the Tunbridge Wells Local Planning Authority (LPA). The site lies approximately 3.7km to the west of Cranbrook and 16.3km to the west of Royal Tunbridge Wells. The site is located at postcode TN17 2QZ and central OS grid reference TQ 66692 36186 (Figure 1).

The site comprises cereal crops, modified grassland, other neutral grassland, developed land, sealed surface, lowland mixed deciduous woodland, individual rural trees, lines of trees, lines of trees with associated ditch, native hedgerows, species-rich native hedgerows, species-rich native hedgerows with trees, species-rich native hedgerows with trees and associated ditch, and priority river habitat.

### 1.3 PLANNING APPLICATIONS

There are no planning applications associated with this site.

### 1.4 SCOPE OF WORK

The objectives of the BNG Assessment are to:

- Determine the baseline biodiversity unit score for the receptor site; and
- Calculate the potential increase in biodiversity units that could be achieved by implementation of appropriate landscaping proposals documented within this report.

The information and data provided have been prepared in accordance with current best-practice guidance (BS 42020:2013, BS 8683:2021; CIEEM et al., 2016; CIRIA, 2019).

## 1.5 RELEVANT POLICY & LEGISLATION

### 1.5.1 National Planning Policy Framework 2025

The National Planning Policy Framework sets out how sustainable development can be achieved in England. Within the framework are specific policies that refer to securing measurable net gains for biodiversity. Of particular relevance are the following paragraphs:

**Paragraph 187.** Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- 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;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

**Paragraph 192.** To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- 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.

**Paragraph 193.** When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

### **1.5.2 Environment Act 2021**

The Environment Act 2021 includes provision for biodiversity net gain to be applied to every planning permission.

Schedule 14 of the Environment Act sets out amendments to the Town and Country Planning Act 1990 for the inclusion of biodiversity net gain as follows:

“Biodiversity gain objective

(1) The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.

(2) The biodiversity value attributable to the development is the total of—

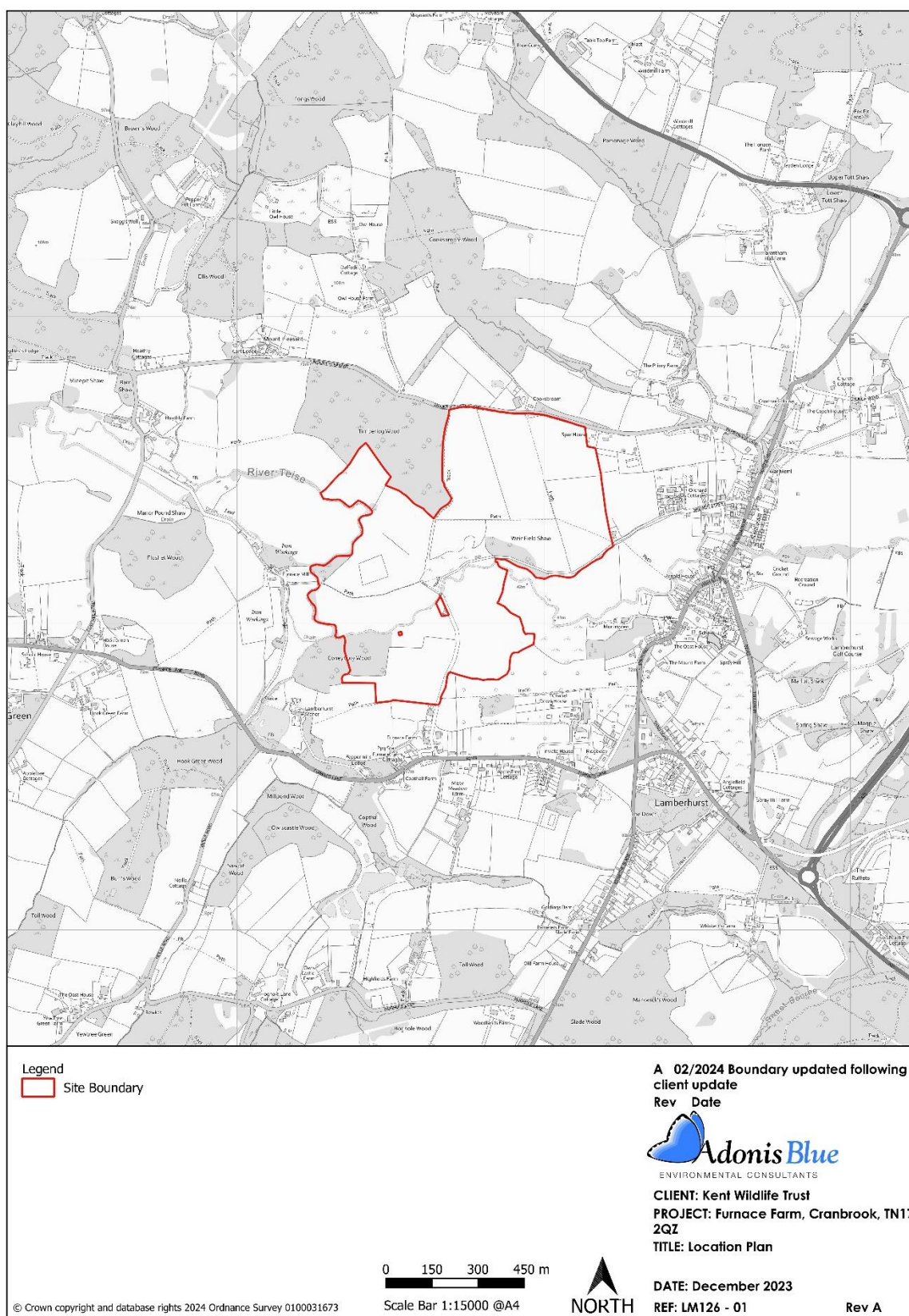
- (a) the post-development biodiversity value of the onsite habitat,
- (b) the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and
- (c) the biodiversity value of any biodiversity credits purchased for the development.

(3) The relevant percentage is 10%.”

The Environment Act received Royal Assent in November 2021, and it became a legal requirement on 12th February 2024 for all planning permissions to include a biodiversity net gain of at least 10%.



**Figure 1: Site Location Map.**



## 2. METHODOLOGY

### 2.1 DESK STUDY

An ecological desktop study was carried out prior to the site visit. Collation of such information can identify the presence of any statutory or non-statutory designated ecological sites and highlight the presence of protected or notable species occurring on the site or within the local area, which may have the potential to be affected by the proposals.

The consultees for the desktop study together with the relevant information they have provided are shown in Table 1.

**Table 1:** Desktop Study Consultees.

Consultee	Data Provided
Kent & Medway Biological Records Centre (KMBRC) <sup>1</sup>	<ul style="list-style-type: none"> <li>• Statutory designated sites – 1km radius from site centre</li> <li>• Protected Species Inventory</li> <li>• Conservation Concern Species Inventory</li> <li>• Invasive Non-native Species Inventory</li> <li>• Kent Rare &amp; Scarce Species Inventory</li> <li>• Bat records from Kent Bat Group – 5km radius from site centre</li> <li>• Bird records from Kent Ornithological Society</li> </ul>
Kent Landscape Information System (KLIS) <sup>2</sup>	<ul style="list-style-type: none"> <li>• Local Wildlife Sites -1km radius from site centre</li> </ul>
Natural England Priority Habitats Inventory <sup>3</sup>	<ul style="list-style-type: none"> <li>• Priority habitats within 500m radius from site centre</li> </ul>
Magic Website <sup>4</sup>	<ul style="list-style-type: none"> <li>• Statutory designated sites – 2km radius from site centre</li> <li>• International sites – 15km radius from site centre</li> <li>• SSSI Impact Risk Zones (to assess planning applications for likely impacts on SSSIs/SACs/SPAs &amp; Ramsar sites within area of interest)</li> <li>• Priority Habitats - 500m radius from site centre</li> <li>• Granted European Protected Species Licencing - 1km (bats 5km)</li> </ul>
Land App <sup>5</sup>	<ul style="list-style-type: none"> <li>• EWCO<sup>6</sup> Biodiversity – Priority Habitat Network</li> <li>• Habitat Networks (England)</li> <li>• Priority Habitat Inventory (England)</li> </ul>

<sup>1</sup> <https://www.kmbrc.org.uk>

<sup>2</sup> <http://www.archnature.eu/mapping-tools.html>

<sup>3</sup> <https://www.data.gov.uk/dataset/4b6ddab7-6c0f-4407-946e-d6499f19fcde/priority-habitats-inventory-england>

<sup>4</sup> [www.magic.gov.uk](http://www.magic.gov.uk)

<sup>5</sup> <https://go.thelandapp.com>

<sup>6</sup> England Woodland Creation Offer (<https://thelandapp.com/>)

### 2.1.1 Field Survey Methods

The site (Figure 1) was visited on 13<sup>th</sup> to 15<sup>th</sup> May 2024 inclusive by James Madden BSc MSc ACIEEM, Associate Ecological Advisor for Adonis Blue Environmental Consultants (ABEC).

The site visit comprised a walkover survey to assess the habitats present within the survey area for their importance and likelihood of supporting protected species using standard best practice survey methods (CIEEM, 2018; UKHab Ltd, 2023). The survey did not include a specific search for the presence of Schedule 9 invasive non-native plant species; however, the presence of any such species was noted if observed.

### Rivers and Streams

Modular River Surveys are required for the Priority River habitat and 'other rivers and streams' watercourse types in the Statutory Biodiversity Metric. It combines information gathered from three river units of different size (module, sub-reach, reach) in the form of Modular River Physical Surveys (MoRPh). The field survey undertaken on 13<sup>th</sup> May 2024 uses the methodology in the guidance document 'How to Conduct a MoRPh Survey 2022 v13' (Modular River Survey, 2022) and was led by Sylvie Harmer who holds River Condition Assessment accreditation. The River Condition Assessment survey extent is shown in Figure 2.

Each MoRPh survey centres on a single watercourse and its immediate environs including bank sides and bank tops and land within 10m of the bank edges and consists of 5 contiguous 'modules'. The module length is determined by the river width. As the River Teise that runs through the site is more than 5m in width but less than 10m wide, each module length was 20m. Therefore, each MoRPh survey covered a total river length of 100m. The results were entered into the River Modular Tool, 'Cartographer'<sup>7</sup> which includes a desktop assessment for River Type. The Surveys and River Type were combined to produce a River Condition Assessment, which was then input into the Statutory Biodiversity Metric.

For the Metric, the number of MoRPh Surveys required depends on the site and the character of the river. The Surveys should capture a minimum of 20% of the river length within the larger survey area. There is only one Reach present on-site at a length of approximately 611m. In order to satisfy the requirement of 20% coverage, 2 surveys were undertaken at SR1 (Modules 1-5) and SR2 (Modules 6-10) of 5 contiguous 'modules' each (total of 10 modules) (see Figure 2 overleaf).

### 2.1.2 Mapping Methods

Mapping of the habitats within the site followed the UK Habitat Classification methodology V2 (UKHab Ltd, 2023). This follows a standardised system which can be easily interpreted, with habitats and boundary features correlating to one of around ninety set definitions.

A habitat map showing the baseline habitats is provided in Figure 3 and the target habitats for BNG at 30 years can be seen in Figure 5.

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<sup>7</sup> <https://app.cartographer.io/signin?go=%2Fws%2Fadonisblue>



**Figure 2:** MoRPh River Assessment Survey Extent.



### 2.1.3 Approach to Biodiversity Net Gain

This report is based on calculations using The Statutory Biodiversity Metric released on 29th November 2023 (Gov.uk, 2023). The Metric provides a way of measuring and accounting for baseline biodiversity as well as biodiversity losses and gains resulting from development or land management change. It uses habitat as a proxy for wider biodiversity with different habitat types scored according to their relative biodiversity value. This value is then adjusted, depending on the condition and location of the habitat, to calculate 'biodiversity units' for that specific project or development. The Statutory Biodiversity Metric incorporates separate calculations for area habitats and linear habitats, which comprise hedgerows and watercourses.

When providing recommendations for habitat retention, enhancement and/or creation, ABEC follows a set of core principles with regard to BNG assessments, whereby our proposals for achieving Biodiversity Net Gain aim to:

- Align with the targets of the Nature Recovery Network and Biodiversity Opportunity Areas targets, incorporating a site's landscape setting and promoting connectivity;
- Extend and connect areas of Priority habitats, incorporating regional habitat and species priorities;
- Adhere to CIEEM Best Practice for BNG;
- Create a mosaic of habitat types within each site; and
- Follow an open precautionary principal approach to baseline habitat classification – where habitats are between values, the highest value is given.

### 2.1.4 Strategic Significance

Strategic significance relates to the spatial location of a habitat parcel at a landscape scale. It is based on the habitat type and its location, depending on their status in a local plan, strategy or policy related to biodiversity.

Adonis Blue Environmental Consultants (ABEC) examined the local strategic context of the site to identify any biodiversity plans or strategies to which a habitat bank at the site could contribute. Existing information was analysed to create a baseline of the habitats on site. Statutory and non-statutory designated wildlife sites were identified.

Strategic significance in the Metric is determined based on the Interim Strategic Significance Guidance for Biodiversity Net Gain in Kent and Medway (KCC, 2024), which sets out how strategic significance should be assigned for area-based habitats, hedgerow units and watercourse units for Kent and Medway. The document states that 'it is intended that this interim guidance will be superseded by a Local Nature Recovery Strategy for Kent and Medway (expected publication date spring/summer 2025)' (KCC, 2024).

### 2.1.5 Evidence of Technical Competence and Experience

The Statutory Biodiversity Metric calculations and the BNG Assessment report were undertaken by Sylvie Harmer BSc, Ecologist of Adonis Blue Environmental Consultants (ABEC). Sylvie has 3 years of experience of using and reporting on the Biodiversity Metrics



2.0, 3.0, 3.1, 4.0 and the Statutory Metric. These were reviewed by James Madden BSc (Hons) MSc ACIEEM, Associate Ecological Advisor for ABEC who has been undertaking BNG assessment since 2019.

## **2.2 LIMITATIONS**

### **2.2.1 Field Survey**

The habitat areas and linear features recorded during the UK Habitat Classification survey have been used for mapping and measuring the baseline conditions. The boundaries between these habitat parcels have clear boundary changes, which increases the accuracy of the calculations and there is not considered to be any limitation with regard to the measurements taken.

The habitat surveys were carried out in May which is within the optimal period for undertaking habitat surveys for Biodiversity Net Gain (April to September inclusive).

### **2.2.2 The Statutory Biodiversity Metric**

The Statutory Biodiversity Metric values are unique and cannot be compared to values from the original DEFRA Metric or any other Metric that may be in use. The three distinct modules of the Metric (area habitats, hedgerows and watercourses) are unique and cannot be summed or considered together. They must be kept as separate values.

The Metric uses habitats as a proxy for biodiversity. The scoring of habitats is informed by ecological reasoning and the available evidence - the outputs of biodiversity unit calculations are not scientifically precise or absolute values. The generated biodiversity unit scores are a proxy for the relative biodiversity worth of a habitat or site. Outputs should therefore be interpreted alongside ecological expertise and common sense, as an element of the evidence that informs plans and decisions.

The Metric is not a total solution to biodiversity decisions – for example, it helps calculate the amount of new or restored habitat needed to compensate for a loss of habitat, but it does not provide information relating to the appropriate composition of plant species to use. Assessing the impact of changes in land use through using The Statutory Biodiversity Metric must follow the set of key principles and rules (Gov.uk, 2023).

Biodiversity Net Gain calculation scores can only ever be a prediction when they are calculated prior to habitat creation and management completion. The final biodiversity net gain calculations would need to be repeated post-management to confirm that the predicted biodiversity net gain has been met.

### **2.2.3 Rivers and Streams**

Although MoRPh Surveys can be undertaken at any time of year, the most optimal time of year for these surveys is between May and September inclusive when aquatic vegetation is clearly apparent. Ideal months are May, June and September when all vegetation is visible but not so much as to obstruct access and/or views. The survey was carried out in May which is within one of the prescribed 'best' months for survey.

### 3. BASELINE CONDITIONS

#### 3.1 IMPORTANT ECOLOGICAL FEATURES

The habitat types identified, in relation to areas that will be used for offsite biodiversity net gains, are listed below. The relevant UKHab codes are given in brackets (UKHab Ltd, 2023); parcel numbers are noted in Figure 3; and all habitats were conditioned assessed against a standard set of criteria in the Defra Standard Biodiversity Metric and were assigned a rating accordingly (See Appendices A & B, and Section 2.2.3).

**Table 2:** Habitat Condition Assessment results.

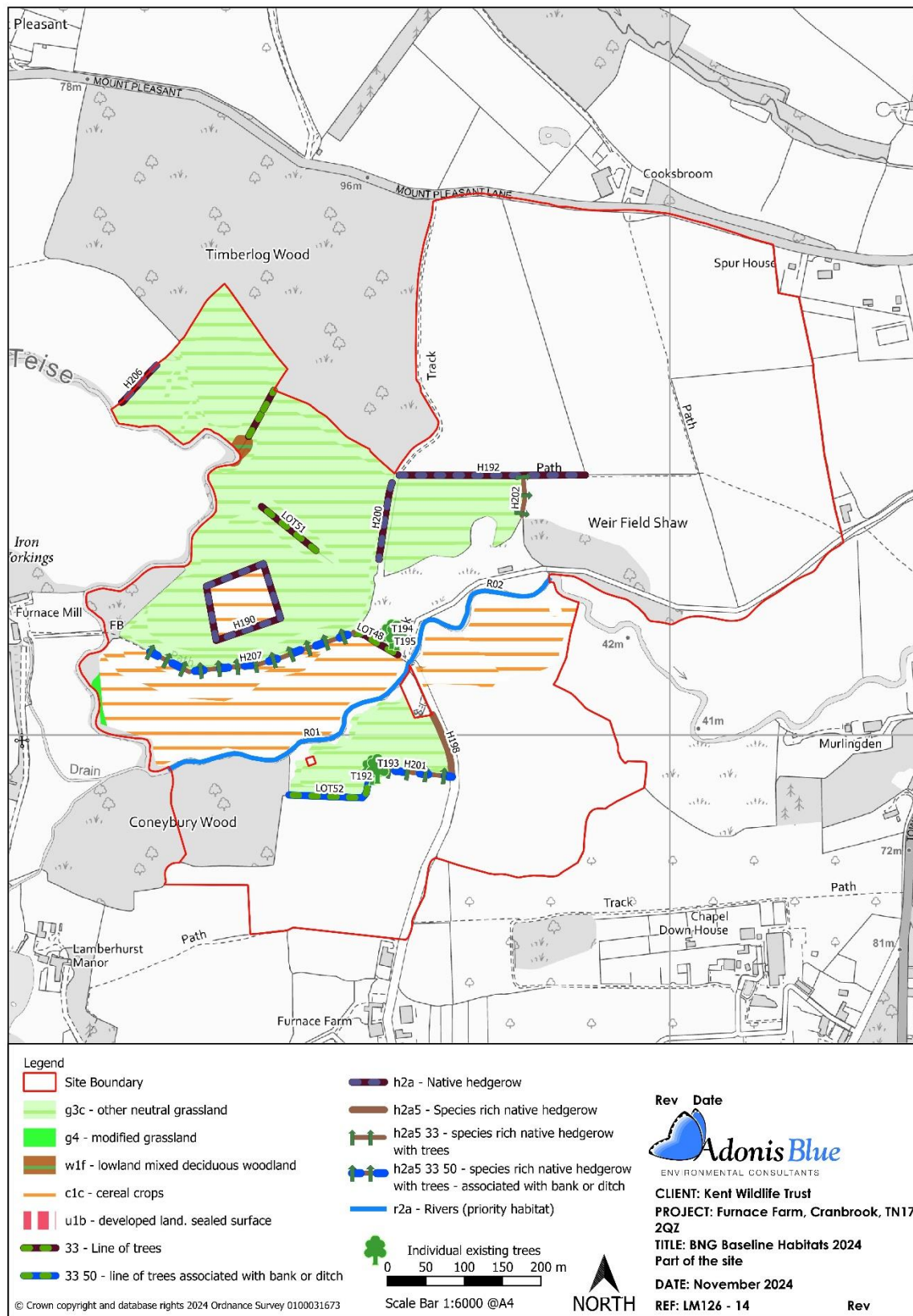
Broad habitat type	Habitat type (code)	Area / length	Habitat condition (Habitat IDs)		
			Poor	Moderate	Good
Cropland	Cereal crops (c1c)	6.332 ha	N/A		
Grassland	Modified grassland (g4)	0.042 ha	-	877	-
	Other neutral grassland (g3c)	12.639 ha	873	-	878, 881, 912
Urban	Developed land, sealed surface (u1b)	0.032 ha	N/A		
Woodland and forest	Lowland mixed deciduous woodland (w1f)	0.060 ha	-	900	-
Individual trees	Rural trees (Very Large)	0.0765 ha	-	-	T192
	Rural trees (Large)	0.0366 ha	-	-	T193
	Rural trees (Small)	0.0081 ha	-	T194, T195	-
Linear features: Hedgerows	Line of trees (33)	0.127km	-	LOT48-LOT50	-
	Line of trees with associated ditch (33 50)	0.136 km	-	LOT52	-

Broad habitat type	Habitat type (code)	Area / length	Habitat condition (Habitat IDs)		
			Poor	Moderate	Good
Linear features: Hedgerows	Native hedgerows (h2a)	0.411 km	-	H192, H200, H206	-
	Species-rich native hedgerows (h2a5)	0.086 km	-	H198	-
	Species-rich native hedgerows with trees (h2a5 33)	0.051 km	-	H202	-
	Species-rich native hedgerows with trees and associated ditch (h2a5 33 50)	0.106 km	-	H201	-
Linear features: Watercourses	Rivers (priority habitat) (r2a)	0.635 km	-	R01, R02	-

### 3.2 EVIDENCE OF BASELINE DATA

The Statutory Biodiversity Metric uses the UK Habitat Classification definitions for terrestrial habitats (UKHab Ltd, 2023). Therefore, the site survey and subsequent mapping (Figure 3) followed the UK Habitat Classification methodology V2 (UKHab Ltd, 2023). This ensured that the closest equivalent habitat type, if not the exact match, could be made to the Habitat and Linear options as available in the Statutory Biodiversity Metric.

**Figure 3:** Map showing location of existing habitats within the site.



### 3.3 BASELINE METRIC CALCULATIONS

The baseline data entered into the metric calculation for area and linear habitat types is presented below in Tables 3 and 4. Baseline habitats are shown in Figure 3.

**Table 3:** Area habitats biodiversity baseline calculation data.

Broad habitat type	Habitat type	Area (ha)	Habitat IDs	Habitat condition	Distinctiveness	Strategic significance	Suggested action to address habitat loss	Total habitat units	Lost, retained or enhanced
Cropland	Cereal crops (c1c)	6.332	867, 870, 907	N/A	Low	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	12.66	Lost
Grassland	Modified grassland (g4)	0.042	877	Moderate	Low	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.17	Enhanced
Grassland	Other neutral grassland (g3c)	1.615	873	Poor	Medium	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	7.43	Lost
		1.198	878, 881, 912	Good				16.53	Lost
		5.292	873	Poor				24.34	Enhanced
		4.534	878, 881, 912	Poor				62.57	Retained



Broad habitat type	Habitat type	Area (ha)	Habitat IDs	Habitat condition	Distinctiveness	Strategic significance	Suggested action to address habitat loss	Total habitat units	Lost, retained or enhanced
Urban	Developed land, sealed surface (u1b)	0.032	883	N/A	V. Low	Area/compensation not in local strategy/ no local strategy	Compensation not required	0.00	Retained
Woodland and forest	Lowland mixed deciduous woodland (w1f)	0.060	900	Moderate	High	Formally identified in local strategy	Same habitat required	0.83	Retained
Individual trees	Rural trees (Very Large)	0.0765	T192	Good	Medium	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.92	Retained
	Rural trees (Large)	0.0366	T193	Good				0.44	Retained
	Rural trees (Small)	0.0081	T194, T195	Moderate				0.06	Retained

**Table 4:** Linear features biodiversity baseline calculation data.

Broad habitat type	Habitat type	Area (ha)	Habitat IDs	Habitat condition	Distinctiveness	Strategic significance	Suggested action to address habitat loss	Total habitat units	Lost, retained or enhanced
Linear features: Hedgerows	Line of trees (33)	0.127	LOT48- LOT50	Moderate	Low	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	<b>0.51</b>	<b>Retained</b>
	Line of trees with associated ditch (33 50)	0.136	LOT52	Moderate				<b>0.54</b>	<b>Retained</b>
	Native hedgerows (h2a)	0.411	H192, H200, H206	Moderate	Low			<b>1.64</b>	<b>Retained</b>
	Species-rich native hedgerows (h2a5)	0.086	H198	Moderate	Medium	Location ecologically desirable but not in local strategy	Like for like or better	<b>0.76</b>	<b>Retained</b>
	Species-rich native hedgerows with trees (h2a5 33)	0.051	H202	Moderate	High	Formally identified in local strategy		<b>0.70</b>	<b>Retained</b>

Broad habitat type	Habitat type	Area (ha)	Habitat IDs	Habitat condition	Distinctiveness	Strategic significance	Suggested action to address habitat loss	Total habitat units	Lost, retained or enhanced
Linear features: Hedgerows	Species-rich native hedgerows with trees and associated ditch (h2a5 33 50)	0.106	H201	Moderate	V. High	Formally identified in local strategy	Like for like	<b>1.95</b>	<b>Retained</b>
Linear features: Watercourses	Rivers (priority habitat) (r2a)	0.635	R01, R02	Moderate	V. High	Formally identified in local strategy	Same habitat required – bespoke compensation option	<b>11.68</b>	<b>Retained</b>

### 3.4 STRATEGIC SIGNIFICANCE

The site is not subject to any statutory nature.

**Table 5.** Table of statutory and non-statutory designated sites within 1km of the site.

Designation	Name	Distance and bearing
<b>Statutory Designations</b>		
RAMSAR <sup>8</sup>	None	-
Site of Special Scientific Interest (SSSI) <sup>9</sup>	None	-
Special Area of Conservation (SAC) <sup>10</sup>	None	-
Special Protection Area (SPA) <sup>11</sup>	None	-
<b>Non-Statutory Designations</b>		
Local Nature Reserve (LNR) <sup>12</sup>	None	-
Local Wildlife Site (LWS) <sup>13</sup>	Woods and Pasture near River Teise above Lamberhurst	Site sits partially within LWS
	The Down, Lamberhurst	433m southeast
National Nature Reserve (NNR) <sup>14</sup>	None	-
<b>Other Designations</b>		
Biodiversity Opportunity Area (BOA) <sup>15</sup>	High Weald	Site sits within BOA
National Character Area (NCA) <sup>16</sup>	High Weald	Site sits within NCA

<sup>8</sup> Ramsar Sites are wetlands of international importance designated under the Ramsar Convention. <https://jncc.gov.uk/jncc-assets/RIS/UK11071.pdf>

<sup>9</sup> SSSIs are areas notified under the Wildlife and Countryside Act, 1981 as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats, and natural features. Each site is of national significance for its nature conservation value. There are approximately 4,100 SSSIs in England of which 102 are in Kent.

<sup>10</sup> SACs are areas of land designated under the Habitats Directive (92/43/EEC) for habitats and species selected as being of EC importance. Member states are required to take measures to maintain and restore these natural and semi-natural habitats and wild species at a favourable conservation status.

<sup>11</sup> SPAs are protected areas for birds. <https://jncc.gov.uk/our-work/special-protection-areas/>

<sup>12</sup> LNRs are protected areas of land designated by a local authority because of their local special natural interest and, where possible, educational and community value.

<sup>13</sup> LWSs are areas of land that are especially important for their wildlife. They are some of our most valuable wildlife areas. Local Wildlife Sites are identified and selected locally using scientifically determined criteria and surveys. They are corridors for wildlife, forming key components of ecological networks. In Kent, there are over 460 Local Wildlife Sites, covering a total area of over 27,500 hectares, (roughly 7% of the county).

<sup>14</sup> NNRs were established to protect some of our most important habitats, species and geology, and to provide 'outdoor laboratories' for research. Kent's NNRs can be found here: <https://www.gov.uk/government/publications/kents-national-nature-reserves>

<sup>15</sup> Biodiversity Opportunity Areas show the spatial image of where the Kent Biodiversity Strategy targets should be focused. They show where the most biodiversity benefits can be gained either through habitat enhancement, restoration or recreation.

<sup>16</sup> <https://publications.naturalengland.org.uk/publication/12332031?category=587130>

Other Designations		
National Landscape <sup>17</sup>	High Weald	Site sites within the National Landscape
Irreplaceable Habitats		
Ancient Semi-Natural Woodland (ASNW)	15 ASNW including Cooksbroom Wood, Furnace Wood, Flosket Wood, Hookgreen Wood, Pepper Mill Wood	Within, adjacent to and within 1km of site
Plantation on Ancient Woodland Site (PAWS)	None	-

The other neutral grassland and lowland mixed deciduous woodland are habitats identified within the description of the High Weald BOA (KCC, 2024) and therefore, are considered as 'formally identified in the local plan'.

The species-rich native hedgerows are medium distinctiveness linear features identified within the Interim Strategic Significance Guidance for Biodiversity Net Gain in Kent and Medway and, therefore, are considered as 'location ecologically desirable but not in local strategy' within the Statutory Biodiversity Metric (KCC, 2024).

The species-rich native hedgerows with trees; those with associated ditch; those with trees and associated ditch and the priority river habitat are high and very high distinctiveness linear features identified within the Interim Strategic Significance Guidance for Biodiversity Net Gain in Kent and Medway and, therefore, are considered as 'formally identified in the local plan' within the Statutory Biodiversity Metric (KCC, 2024).

The remaining habitats are not formally identified in the Tunbridge Wells Borough Council Core Strategy or Local Plan. The site's location within a LWS, BOA, and National Landscape and its proximity to another LWS and ancient woodland means it is situated in an advantageous location for the enhancement of biodiversity (Figure 4).

The site will serve as a 'stepping stone' in a local landscape that has a lack of other areas of ecological importance and, as such, habitat creation within the site will help connect other isolated areas of ecological importance.

As well as complimenting the local designated sites, this site could support a number of species known to occur within the local area. Species recorded within a 1km radius of the site<sup>18 19</sup> include:

- Bats including Serotine *Eptesicus serotinus*, Brandt's *Myotis brandtii*, Daubenton's *M. daubentonii*, Natterer's *M. nattereri*, Leislers *Nyctalus leisleri*, Noctule *N. noctula*, Nathusius' Pipistrelle *Pipistrellus nathusii*, Common Pipistrelle *P. pipistrellus*, Soprano Pipistrelle *P. pygmaeus*, and Long-eared Brown Bat *Plecotus auratus*.

<sup>17</sup> Formerly Area of Outstanding Natural Beauty (AONB); is land protected by the Countryside and Rights of Way Act 2000 (CROW Act). It protects the land to conserve and enhance its natural beauty. The CROW Act sets out the roles and responsibilities that different organisations must follow to manage AONBs. There are 34 AONBs in England. Further information about the Kent Downs AONB is available at <https://highweald.org/>

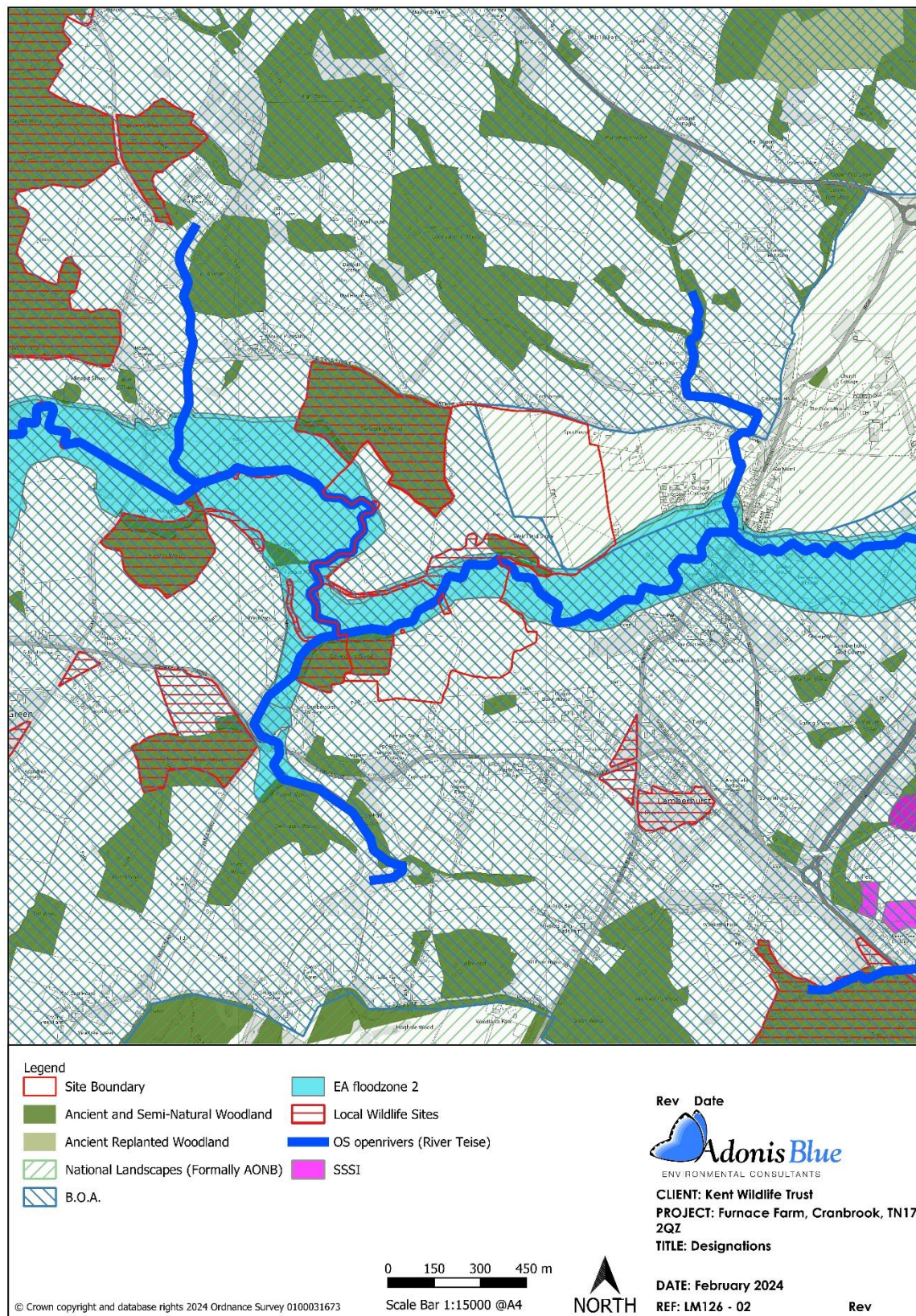
<sup>18</sup> Kent Rare & Scarce Species Inventory (KMBRC).

<sup>19</sup> Protected Species Inventory (KMBRC).



- The proposed creation of hedgerows, grassland and woodland will provide improved foraging, commuting and roosting habitats for bats.
- There are records of five bat roosts of unknown type and one record of a hibernating bat within a 1km radius of the site. One roost lies to the north, two to the east, two to the south and one to the southwest.
  - The post-intervention design provides some connectivity between these roosts and others beyond 1km of the site.
- Birds including Grey Partridge *Perdix perdix*, Lapwing *Vanellus vanellus*, Herring Gull *Laur argentatus*, Turtle Dove *streptopelia turtur*, Cuckoo *Cuculus canorus*, Swift *Apus apus*, Skylark *Alauda arvensis*, House Martin *Delichon urbica*, Yellow Wagtail *Motacilla flava*, Nightingale *Luscinia megarhynchos*, Fieldfare *Turdus pilaris*, Mistle Thrush *Turdus viscivorus*, Spotted Flycatcher *Muscicapa striata*, Marsh Tit *Poecile palustris*, Starling *Sturnus vulgaris*, House Sparrow *Passer domesticus*, Tree Sparrow *P. montanus*, Greenfinch *Carduelis chloris*, Linnet *Carduelis cannabina*, Lesser Redpoll, *Carduelis cabaret*, Hawfinch *Coccothraustes coccothraustes* and Yellowhammer *Emberiza citrinella*.
  - The proposed post-intervention will greatly enhance the site for many of the bird assemblages, species for which have been recorded in the area.
- Invertebrates including species of dragonfly, bee and other pollinators.
- Reptiles and amphibians including Great Crested Newt *Triturus cristatus*, Common Frog *Rana temporaria*, Palmate Newt *Lissotriton helveticus*, Smooth Newt *L. vulgaris*, Slow-worm *Anguis fragilis*, Viviparous Lizard *Zootoca vivipara*, and Grass Snake *Natrix helvetica*.
  - The replacing of arable land with grassland greatly improves the foraging, dispersal and hibernation habitats for all reptiles and amphibians recorded in the local area.
- Large mammals including Eurasian Otter *Lutra lutra*, European Rabbit *Oryctolagus cuniculus*, Fallow Deer *Dama dama*, and Eurasian Badger *Meles meles*.
- Small mammals including West European Hedgehog *Erinaceus europeaus*, Eurasian Water Shrew *Neomys fodiens*, European Water Vole *Arvicola amphibius*, and Stoat *Mustela erminea*.
  - The inclusion of hedgerows, scrub and woodland will provide improved nesting and foraging opportunities for small mammal species.

**Figure 4. Statutory and Non-statutory Designations.**





#### 4. BNG GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT

Table 6 demonstrates how the Biodiversity Net Gain Principles for Development (CIEEM et al., 2016) have been considered in relation to this site.

**Table 6.**

Principle	Application to project
1. Apply the mitigation hierarchy	The loss of medium and high distinctiveness habitats will be avoided. Habitat will be retained where possible and enhancements to the retained habitats will be made.
2. Avoid losing biodiversity that cannot be offset by gains elsewhere	No irreplaceable habitats will be lost.
3. Be inclusive and equitable	Recommendations will respond to the habitats on site. In general, aims are to achieve high biodiversity.
4. Address risk	The habitats proposed on site have a low difficulty of creation or enhancement. Monitoring will detect any deviation from the proposed habitats and allow for corrective management.
5. Make a measurable net gain	This report sets out how a measurable net gain of biodiversity will be achieved.
6. Achieve the best outcomes for biodiversity	The habitats have been designed to deliver better habitats that are relatively easy to manage in a low intervention manner.
7. Be additional	This scheme delivers biodiversity enhancements that would not otherwise have been carried out.
8. Create a net gain legacy	The scheme will provide a biodiversity net gain over a period of 30 years at least therefore ensuring the land cannot be used for development, infrastructure, etc. The scheme overall demonstrates a way of protecting nature for future generations.
9. Optimise sustainability	The proposed habitats are relatively low maintenance, easily achieved by future occupiers of the scheme. Developments overall will be designed to be low impact and sustainable.
10. Be transparent	This report provides a transparent record of the BNG design.

## 5. PROPOSED DESIGNS

There are no planning applications associated with this site and, therefore, no proposed designs for this land.

Recommendations have been made on how to achieve Biodiversity Net Gain through the enhancement of existing habitats (Table 7) and creation of new habitats (Table 8).

**Table 7.** Enhanced Habitat Areas.

Habitat type	Area (ha)	Baseline condition	Proposed habitat type	Proposed condition
Grassland: Modified grassland	0.042	Moderate	Grassland: Other neutral grassland	Good
Grassland: Other neutral grassland	5.292	Poor	Grassland: Other neutral grassland	Good

**Table 8.** Created Habitat Areas

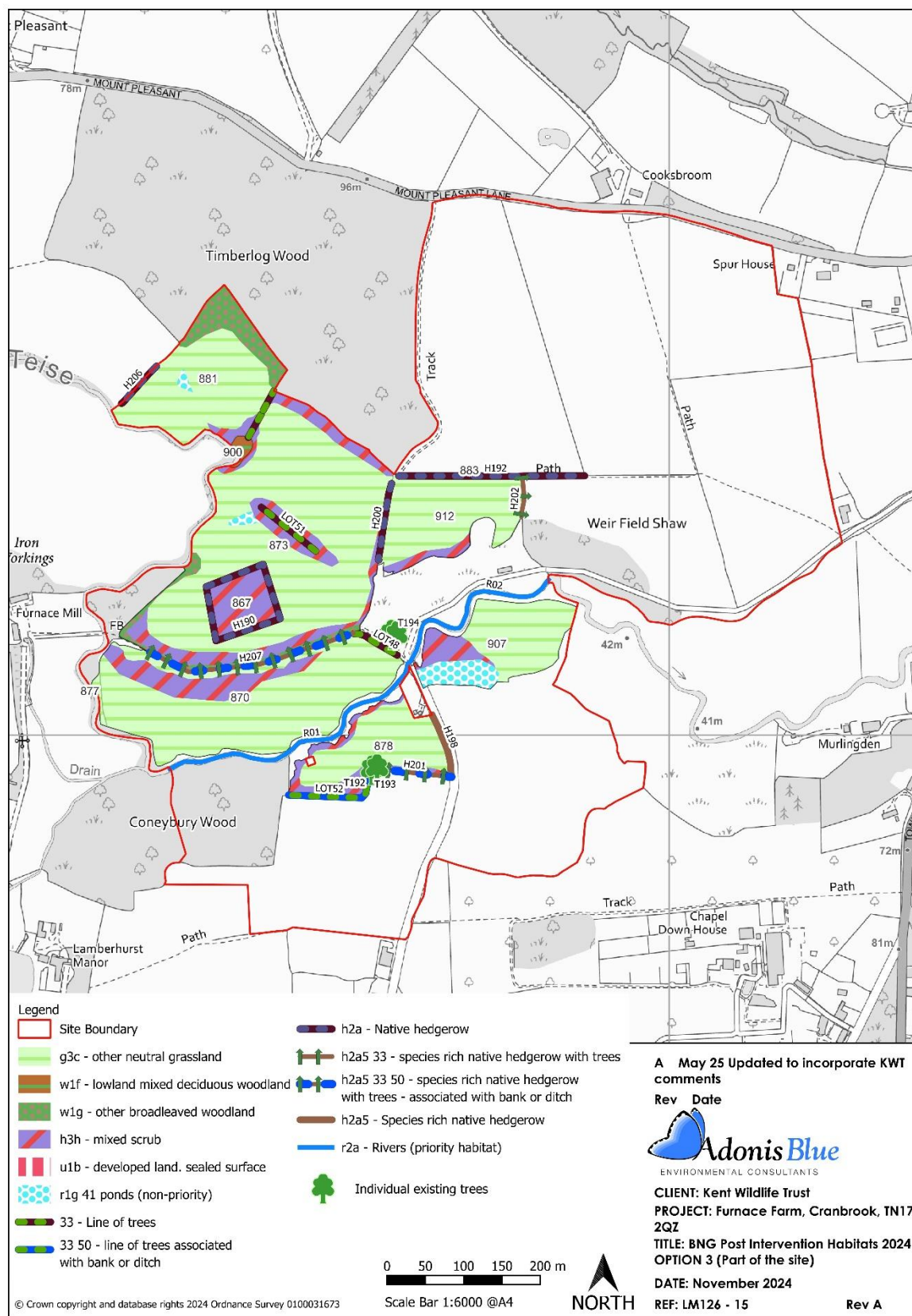
Habitat type	Area (ha)	Baseline condition	Proposed habitat type	Proposed condition
Cropland: Cereal crops	1.543	N/A	Heathland and shrub: Mixed scrub	Moderate
	4.212		Grassland: Other neutral grassland	Good
	0.270		Grassland: Other neutral grassland	Moderate
	0.307		Lakes: Ponds (non-priority)	Moderate
Grassland: Other neutral grassland	0.519	Good	Woodland and forest: Other woodland; broadleaved	Moderate
	0.648	Good	Heathland and shrub: Mixed scrub	Moderate
	0.031	Good	Lakes: Ponds (non-priority)	Moderate
	0.320	Poor	Woodland and forest: Other woodland; broadleaved	Moderate
	1.250	Poor	Heathland and shrub: Mixed scrub	Moderate
	0.045	Poor	Lakes: Ponds (non-priority)	Moderate

Recommendations are for the proposed condition of the habitats and linear features to be enhanced to be increased by at least one level only from that of the baseline level, for example, from moderate to good, through management. This will be achieved through management interventions such as grazing, dredging, seeding, planting, felling, pruning, natural regeneration, etc.

Mixed scrub, other neutral grassland, non-priority ponds, other broadleaved woodland, temporary water bodies, and species-rich native hedgerows will be created in areas as shown in Figure 5 overleaf.

Details of management requirements to achieve the BNG results described above will be included in a Habitat Management and Monitoring Plan (HMMP) as required.



**Figure 5.** Proposed enhancements for the site.

## 6. BIODIVERSITY NET GAIN / LOSS

Based on the proposals for habitat creation within this report (Figure 5), the expected level of Biodiversity Net Gain to be achieved is summarised in Table 13. Trading Standards for Area Habitats (Table 10), Hedgerows (Table 11) Watercourses (Table 12) have been met.

**Table 10.** Trading Summary of Area Habitats

Distinctiveness	Trading Rule	Trading Satisfied?
Very High	Same habitat required – bespoke compensation option	Yes
High	Same habitat required	Yes
Medium	Same broad habitat or a higher distinctiveness habitat required	Yes
Low	Same distinctiveness or better habitat required	Yes

**Table 11.** Trading Summary of Hedgerows

Distinctiveness	Trading Rule	Trading Satisfied?
Very High	Same habitat required	Yes
High	Like for like or better	Yes
Medium	Same distinctiveness or better habitat required	Yes
Low	Same distinctiveness or better habitat required	Yes

**Table 12.** Trading Summary of Watercourses

Distinctiveness	Trading Rule	Trading Satisfied?
Very High	Same habitat required – bespoke compensation option	Yes
High	Same habitat required	Yes
Medium	Same habitat required	Yes
Low	Better distinctiveness habitat required	Yes

A detailed breakdown of these results can be found in the accompanying Statutory Biodiversity Metric Calculation spreadsheet.

**Table 13.** Results of Biodiversity Net Gain Calculation.

Habitat	Total Baseline biodiversity units	Post-work biodiversity units	Net unit change	% BNG
Area features	125.96	191.21	65.25	51.81

The details of the landscaping proposals, together with assumptions made about the after-use of the site currently result in a Biodiversity Net Gain of **65.25 habitat units (+51.81%)**.

## 7. MANAGEMENT AND LEGAL ARRANGEMENTS FOR SECURING THE PROJECT

Kent Wildlife Trust will retain possession of the site for the duration of the project. The project will be secured through a Section 106 agreement and a conservation covenant. It is anticipated that both the landowner and ABEC will be party to these agreements. The landowner will be responsible for undertaking practical management, and ABEC will be responsible for overseeing the project and undertaking monitoring throughout the project duration to ensure that biodiversity objectives are being met.

## 8. PROJECT IMPLEMENTATION PLAN

Details of the implementation and continuing management and monitoring of the site will be included in a Habitat Management and Monitoring Plan (HMMP) as required.

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## APPENDIX A – CALCULATING CONDITION SCORES

### Grassland Condition

#### Modified grassland

Habitat ID = 877

Condition = Moderate

Criteria	Scores	Result
A*	1	PASS - 6-8 vascular plant species with $\geq 1$ forb species present. Average vascular count = 6.8; Average forb count = 1
B	1	PASS - condition met; 20% swards are $< 7\text{cm}$ and 20% of swards are $> 7\text{cm}$ . 66.67% under 7cm; 33.33% over 7cm
C	1	PASS - condition met; scrub covers $< 20\%$ of the total grassland area. Scrub cover = 0%
D	1	PASS - physical damage covers $< 5\%$ of the total grassland area. Damage = 0%
E	0	FAIL - bare ground cover is not between 1-10% of the total grassland area. Bare ground cover = 0%
F	0	FAIL - bracken covers $> 20\%$ of the total grassland area. Bracken cover = 53%
G	0	FAIL - invasive non-native plant species present

\* Essential criteria for achieving Moderate or Good.



## Other neutral grassland

Habitat ID = 873

Condition = Poor

Criteria	Scores	Result
A*	0	FAIL - either <6 vascular species or <1 forb species, or both not present. Average vascular count = 8.8; Average forb count = 7
B	1	PASS - condition met; 20% swards are <7cm and 20% of swards are >7cm. 66.67% under 7cm; 33.33% over 7cm
C	1	PASS - condition met; scrub covers <20% of the total grassland area. Scrub cover = 0%
D	1	PASS - physical damage covers <5% of the total grassland area. Damage = 0%
E	0	FAIL - bare ground cover is not between 1-10% of the total grassland area. Bare ground cover = 0%
F	1	PASS - bracken covers <20% of the total grassland area. Bracken cover = 0%
G	1	PASS - no invasive non-native plant species recorded

\* Essential criteria for achieving Moderate or Good.

Habitat ID = 878

Condition = Good

Criteria	Scores	Result
A*	1	PASS - 6-8 vascular plant species with ≥1 forb species present. Average vascular count = 6.4; Average forb count = 4
B	1	PASS - condition met; 20% swards are <7cm and 20% of swards are >7cm. 63.33% under 7cm; 36.67% over 7cm
C	1	PASS - condition met; scrub covers <20% of the total grassland area. Scrub cover = 0%
D	1	PASS - physical damage covers <5% of the total grassland area. Damage = 0%
E	0	FAIL - bare ground cover is not between 1-10% of the total grassland area. Bare ground cover = 0%
F	1	PASS - bracken covers <20% of the total grassland area. Bracken cover = 0%
G	1	PASS - no invasive non-native plant species recorded

\* Essential criteria for achieving Moderate or Good.

## Habitat ID = 881

Condition = Good

Criteria	Scores	Result
A*	1	PASS - 6-8 vascular plant species with $\geq 1$ forb species present. Average vascular count = 7.6; Average forb count = 5
B	1	PASS - condition met; 20% swards are $< 7\text{cm}$ and 20% of swards are $> 7\text{cm}$ . 66.67% under 7cm; 33.33% over 7cm
C	1	PASS - condition met; scrub covers $< 20\%$ of the total grassland area. Scrub cover = 0%
D	1	PASS - physical damage covers $< 5\%$ of the total grassland area. Damage = 0%
E	0	FAIL - bare ground cover is not between 1-10% of the total grassland area. Bare ground cover = 0.5%
F	1	PASS - bracken covers $< 20\%$ of the total grassland area. Bracken cover = 0%
G	1	PASS - no invasive non-native plant species recorded

\* Essential criteria for achieving Moderate or Good.

## Habitat ID = 912

Condition = Good

Criteria	Scores	Result
A*	1	PASS - 6-8 vascular plant species with $\geq 1$ forb species present. Average vascular count = 7; Average forb count = 4
B	1	PASS - condition met; 20% swards are $< 7\text{cm}$ and 20% of swards are $> 7\text{cm}$ . 66.67% under 7cm; 33.33% over 7cm
C	1	PASS - condition met; scrub covers $< 20\%$ of the total grassland area. Scrub cover = 0%
D	1	PASS - physical damage covers $< 5\%$ of the total grassland area. Damage = 0%
E	0	FAIL - bare ground cover is not between 1-10% of the total grassland area. Bare ground cover = 0%
F	1	PASS - bracken covers $< 20\%$ of the total grassland area. Bracken cover = 0%
G	1	PASS - no invasive non-native plant species recorded

\* Essential criteria for achieving Moderate or Good.

## Hedgerow Condition

### Native hedgerows

Habitat ID = H192

Condition = Moderate

Criteria	Scores	Result
A1	1	PASS - average height >1.5m. Average = 4m
A2	1	PASS - average width >1.5m. Average = 2.25m
B1	0	FAIL - average gap between ground and base of canopy >0.5m for >90% of length
B2	1	PASS - gaps <10% of total length and average canopy gap <5m
C1	1	PASS - >1m width of undisturbed ground with perennial herbaceous vegetation >90%. Undisturbed ground = 100%
C2	0	FAIL - cover of plant species indicative of nutrient enrichment >20%
D1	1	PASS - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. INNS/neophyte cover = 0%
D2	1	PASS - damage caused by humans covers <10% of the ground. Damage = 0%
E1	0	FAIL - There is not more than one age-class (or morphology) of tree present, and there is not, on average, at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow
E2	1	PASS - At least 95% of hedgerow trees are in a healthy condition. Damaged = 0%

## Habitat ID = H200

Condition = Moderate

Criteria	Scores	Result
A1	1	PASS - average height >1.5m. Average = 4.5m
A2	1	PASS - average width >1.5m. Average = 2m
B1	0	FAIL - average gap between ground and base of canopy >0.5m for >90% of length
B2	1	PASS - gaps <10% of total length and average canopy gap <5m
C1	1	PASS - >1m width of undisturbed ground with perennial herbaceous vegetation >90%. Undisturbed ground = 100%
C2	1	PASS - cover of plant species indicative of nutrient enrichment <20%
D1	1	PASS - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. INNS/neophyte cover = 0%
D2	1	PASS - damage caused by humans covers <10% of the ground. Damage = 0%
E1	0	FAIL - There is not more than one age-class (or morphology) of tree present, and there is not, on average, at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow
E2	1	PASS - At least 95% of hedgerow trees are in a healthy condition. Damaged = 0%

## Habitat ID = H206

Condition = Moderate

Criteria	Scores	Result
A1	1	PASS - average height >1.5m. Average = 1.8m
A2	1	PASS - average width >1.5m. Average = 2m
B1	0	FAIL - average gap between ground and base of canopy >0.5m for >90% of length
B2	1	PASS - gaps <10% of total length and average canopy gap <5m
C1	1	PASS - >1m width of undisturbed ground with perennial herbaceous vegetation >90%. Undisturbed ground = 100%
C2	0	FAIL - cover of plant species indicative of nutrient enrichment >20%
D1	1	PASS - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. INNS/neophyte cover = 0%
D2	1	PASS - damage caused by humans covers <10% of the ground. Damage = 0%
E1	0	FAIL - There is not more than one age-class (or morphology) of tree present, and there is not, on average, at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow
E2	1	PASS - At least 95% of hedgerow trees are in a healthy condition. Damaged = 0%



## Species-rich native hedgerows

Habitat ID = H198

Condition = Moderate

Criteria	Scores	Result
A1	0	FAIL - average height <1.5m. Average = 1.4m
A2	1	PASS - average width >1.5m. Average = 2.5m
B1	1	PASS - average gap between ground and base of canopy <0.5m for >90% of length
B2	1	PASS - gaps <10% of total length and average canopy gap <5m
C1	1	PASS - >1m width of undisturbed ground with perennial herbaceous vegetation >90%. Undisturbed ground = 100%
C2	0	FAIL - cover of plant species indicative of nutrient enrichment >20%
D1	1	PASS - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. INNS/neophyte cover = 0%
D2	1	PASS - damage caused by humans covers <10% of the ground. Damage = 0%
E1	0	FAIL - There is not more than one age-class (or morphology) of tree present, and there is not, on average, at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow
E2	1	PASS - At least 95% of hedgerow trees are in a healthy condition. Damaged = 0%

## Species-rich native hedgerows with trees

Habitat ID = H202

Condition = Moderate

Criteria	Scores	Result
A1	1	PASS - average height >1.5m. Average = 3m
A2	1	PASS - average width >1.5m. Average = 3m
B1	1	PASS - average gap between ground and base of canopy <0.5m for >90% of length
B2	1	PASS - gaps <10% of total length and average canopy gap <5m
C1	0	FAIL - <1m width of undisturbed ground with perennial herbaceous vegetation <90%. Undisturbed ground = 0%
C2	1	PASS - cover of plant species indicative of nutrient enrichment <20%
D1	1	PASS - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. INNS/neophyte cover = 0%
D2	1	PASS - damage caused by humans covers <10% of the ground. Damage = 0%
E1	0	FAIL - There is not more than one age-class (or morphology) of tree present, and there is not, on average, at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow
E2	1	PASS - At least 95% of hedgerow trees are in a healthy condition. Damaged = 0%

## Species-rich native hedgerows with trees and associated ditch

Habitat ID = H201

Condition = Moderate

Criteria	Scores	Result
A1	1	PASS - average height >1.5m. Average = 3m
A2	1	PASS - average width >1.5m. Average = 3m
B1	1	PASS - average gap between ground and base of canopy <0.5m for >90% of length
B2	1	PASS - gaps <10% of total length and average canopy gap <5m
C1	1	PASS - >1m width of undisturbed ground with perennial herbaceous vegetation >90%. Undisturbed ground = 100%
C2	0	FAIL - cover of plant species indicative of nutrient enrichment >20%
D1	1	PASS - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species and recently introduced species. INNS/neophyte cover = 0%
D2	1	PASS - damage caused by humans covers <10% of the ground. Damage = 0%
E1	0	FAIL - There is not more than one age-class (or morphology) of tree present, and there is not, on average, at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow
E2	1	PASS - At least 95% of hedgerow trees are in a healthy condition. Damaged = 0%

## Individual Trees Condition

### Rural trees

Habitat ID = T192

Condition = Good

Criteria	Scores	Result
A	1	PASS - native species (Pedunculate Oak)
B	1	PASS - individual trees automatically pass criteria B
C	1	PASS - The tree is mature
D	1	PASS - No damage to tree present
E	0	FAIL - No natural ecological features recorded
F	1	PASS - >20% canopy is oversailing vegetation beneath

Habitat ID = T193

Condition = Good

Criteria	Scores	Result
A	1	PASS - native species (Pedunculate Oak)
B	1	PASS - individual trees automatically pass criteria B
C	1	PASS - The tree is mature
D	1	PASS - No damage to tree present
E	0	FAIL - No natural ecological features recorded
F	1	PASS - >20% canopy is oversailing vegetation beneath

## Habitat ID = T194

Condition = Moderate

Criteria	Scores	Result
A	1	PASS - native species (Ash)
B	1	PASS - individual trees automatically pass criteria B
C	0	FAIL - The tree is not mature
D	0	FAIL - Damage to tree present
E	0	FAIL - No natural ecological features recorded
F	1	PASS - >20% canopy is oversailing vegetation beneath

## Habitat ID = T195

Condition = Moderate

Criteria	Scores	Result
A	1	PASS - native species (Ash)
B	1	PASS - individual trees automatically pass criteria B
C	0	FAIL - The tree is not mature
D	1	PASS - No damage to tree present
E	0	FAIL - No natural ecological features recorded
F	1	PASS - >20% canopy is oversailing vegetation beneath



## Line of Trees Condition

### Line of trees

Habitat ID = LOT48

Condition = Moderate

Criteria	Scores	Result
A	1	PASS - >70% of the trees are native species. Native species = 100%
B	1	PASS - tree canopy gaps <10% of total area
C	0	FAIL - <1 tree with veteran features or natural ecological niches for vertebrates and invertebrates. Total number = 0
D	0	FAIL - no undisturbed naturally vegetated strip >6m surrounding line of trees present
E	1	PASS >= 95% of trees are in healthy condition. Healthy condition = 100%

Habitat ID = LOT49

Condition = Moderate

Criteria	Scores	Result
A	1	PASS - >70% of the trees are native species. Native species = 100%
B	0	FAIL - tree canopy gaps >10% of total area
C	0	FAIL - <1 tree with veteran features or natural ecological niches for vertebrates and invertebrates. Total number = 0
D	1	PASS - undisturbed naturally vegetated strip >6m surrounding line of trees present
E	1	PASS >= 95% of trees are in healthy condition. Healthy condition = 100%

## Habitat ID = LOT50

Condition = Moderate

Criteria	Scores	Result
A	1	PASS - >70% of the trees are native species. Native species = 100%
B	0	FAIL - tree canopy gaps >10% of total area
C	0	FAIL - <1 tree with veteran features or natural ecological niches for vertebrates and invertebrates. Total number = 0
D	1	PASS - undisturbed naturally vegetated strip >6m surrounding line of trees present
E	1	PASS >= 95% of trees are in healthy condition. Healthy condition = 100%

**Line of trees with associated ditch**

Habitat ID = LOT52

Condition = Moderate

Criteria	Scores	Result
A	1	PASS - >70% of the trees are native species. Native species = 100%
B	1	PASS - tree canopy gaps <10% of total area
C	0	FAIL - <1 tree with veteran features or natural ecological niches for vertebrates and invertebrates. Total number = 0
D	0	FAIL - no undisturbed naturally vegetated strip >6m surrounding line of trees present
E	1	PASS >= 95% of trees are in healthy condition. Healthy condition = 100%

## Woodland Condition

### Lowland Mixed Deciduous Woodland

Habitat ID = 900

Condition = Moderate

Criteria	Scores	Result
A	1	POOR - 1 age class present
B	1	POOR - >40% of land has evidence of browsing damage
C	2	MODERATE - no rhododendron or cherry laurel present, and <10% cover of other invasive species
D	2	MODERATE - 3 or 4 native species present. Average = 3
E	3	GOOD - >80% of canopy trees (100%) <b>and</b> >80% of understory shrubs (100%) are native
F	3	GOOD - woodland of size <10ha has 0-20% of woodland as temporary open space. Average = 0%
G	1	POOR - 0 regeneration classes present
H	1	POOR - either tree mortality >25% (mortality = 0%), <b>and/or</b> pest/disease/dieback is present
I	2	MODERATE - recognisable NVC plant community at ground layer present - doesn't qualify as ancient woodland
J	1	POOR - <=1 storey present
K	3	GOOD - >=2 veteran trees per hectare. Mean = 16.6666666666667
L	3	GOOD - >50% of survey plots have stumps and/or deadwood. Survey plots = 100%
M	3	GOOD - no nutrient enrichment or damaged ground

## APPENDIX B – RIVER CONDITION SCORES

**Table 14 - Preliminary Condition Scores**

\*Positive indicators score 0 to +4 and reflect 'natural' elements. Scores 0, 1 or 2 are in bold as these may be susceptible to improvement as a result of project design implementation or may self-adjust following implementation.

\*\*Negative indicators score 0 to -4 and reflect human pressures and interventions. Scores -3 and -4 are in bold, as these are susceptible to changes as a result of project design-implementation.

\*\*\*NNIPS is Non-native invasive plant species.

Subreach		SR1	SR2
Preliminary Condition Score		0.866	0.340
River Shape		1.357	2.314
Average width (m)		4.60	0.81
Average of positive indicators			1.263
Average of negative indicators			-0.923
A6: Bedrock Reaches		No	No
A7: Coarsest Bed Material Size		Gravel / Pebble	Silt
A8: Average alluvial bed material size class		Silt	Silt
Positive indicators*	B1: Bank top vegetation structure	<b>2</b>	3
	B2: Bank top tree feature richness	<b>0</b>	<b>0</b>
	B3: Bank top water related features	<b>0</b>	<b>0</b>
Negative indicators**	B4: Bank top NNIPS Cover	-2	<b>-3</b>
	B5: Bank top managed ground cover	-2	-2
Positive indicators	C1: Bank face riparian vegetation structure	<b>2</b>	3
	C2: Bank face tree feature richness	<b>2</b>	<b>2</b>
	C3: Bank face natural bank profile richness	3	3
	C4: Bank face natural bank profile richness	4	4
	C5: Bank face natural bank material richness	<b>1</b>	<b>1</b>
	C6: Bank face bare sediment extent	<b>1</b>	4



Subreach		SR1	SR2
Negative indicators	C7: Bank face artificial bank profile extent	0	0
	C8: Bank face reinforcement extent	-1	0
	C9: Bank face reinforcement material severity	-2	0
	C10: Bank face NNIPS*** cover	-2	-2
Positive indicators	D1: Channel margin aquatic vegetation extent	1	1
	D2: Channel margin aquatic morphotype richness	0	0
	D3: Channel margin physical feature extent	1	1
	D4: Channel margin physical richness	3	2
Negative indicator	D5: Channel margin artificial features	-1	0
Positive indicators	E1: Channel aquatic morphotype richness	2	1
	E2: Channel bed tree features	2	2
	E3: Channel bed hydraulic features richness	2	2
	E4: Channel bed natural features extent	1	1
	E5: Channel bed natural features richness	1	1
	E6: Channel bed material richness	2	3
Negative indicators	E7: Channel bed siltation	-3	-4
	E8: Channel bed reinforcement extent	0	0
	E9: Channel bed reinforcement severity	0	0
	E10: Channel bed artificial features severity	-3	-1
	E11: Channel bed NNIPs extent	0	0
	E12: Channel bed filamentous algae extent	0	0

**Table 15 - Final Condition Scores**

<b>Subreach</b>	<b>SR1</b>	<b>SR2</b>
River Category	Other	Other
A1: Braiding Index	1	1
A2: Sinuosity Index	1.180	1.180
A3: Anabranching Index	1	1
A4: Level of Confinement	Unconfined	Unconfined
A5: Reach Valley Gradient	0.006	0.006
A6: Bedrock Reach	False	False
A7 Coarsest Bed Material	Gravel / Pebble	Gravel / Pebble
A8: Average Bed Material	Silt	Silt
River Type	K	K
River Shape	1.357	1.296
Average width (m)	4.6	4.6
Preliminary Condition Score	0.866	0.348
<b>Final Condition Class</b>	<b>Moderate</b>	<b>Moderate</b>
Adjusted condition for over deepness	N/A	N/A