

Frodsham SolarBiodiversity Net Gain Report

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Frodsham Solar

on behalf of Axis PED

EN010153/DR/7.12: Biodiversity Net Gain Report





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CONTENTS

1.	INTRODUCTION	5
1.1	Background and Scope	5
1.2	Site Overview	5
1.3	BNG Statement	6
1.4	Legislative and Planning Framework	7
2	METHODOLOGY	9
2.1	Habitat Survey and Condition Assessment	9
2.2	The Modular River Physical Module Survey	.10
2.3	Biodiversity Metric	.11
3	BASELINE	13
3.1	Baseline BNG Assessment	.13
5	POST DEVELOPMENT	14
5.1	Post-development BNG Assessment	.14
6	DISCUSSION	19
TABL	ES	
Table	2 1.1: Biodiversity metric rules (from the Metric User Guide)	8
Table	5.1: Summary of Post Development Objectives – Habitats	. 15
Table	5.2: Summary of Post Development Objectives – Hedgerows	. 17
Table	25.3: Summary of Post Development Objectives – Watercourses	. 18
Table	e 6.1: Breakdown of Baseline, Post Intervention and Net Change of Units for the	ne
Site, I	NBBMA and Site Excluding NBBMA	. 19
Table	e 6.2: Breakdown demonstrate least 10% of biodiversity units	. 19

FIGURES

Figure 1a-e: Habitat Plan

Figure 2: Proposed Retained Habitats

Figure 3: Proposed Lost Habitats

Figure 4: Proposed Post-Development Created Habitats

Figure 5: Proposed Hedge Plan

Figure 6: Proposed Watercourse Plan

Figure 7: Modular River Physical Survey Location Plan

1. INTRODUCTION

1.1 Background and Scope

- 1.1.1 This Technical Appendix has been prepared to accompany the DCO Application for Frodsham Solar, and has been prepared with reference to Environmental Statement (ES) **Chapter 7: Terrestrial Ecology**.
- 1.1.2 This report shows how the DEFRA Statutory Biodiversity Metric has been utilised in order to calculate the number of biodiversity units that the Site represents at baseline, and how this is predicted to change under the proposed landscape plan, **ES Vol 3 Figure 2-3:** (a-e) Illustrative Environmental Masterplan [EN010153/DR/6.3].

1.2 Site Overview

- 1.2.1 The Proposed Development comprises a new solar energy generating station and an associated on-site Battery Energy Storage System (BESS) on land at Frodsham Marsh, Frodsham, Cheshire West and Chester ('the Site'). ES Vol 1 Chapter 1: Introduction [EN010153/DR/6.1] and ES Vol 1 Chapter 2: The Proposed Development [EN010153/DR/6.1] provide a detailed description of the Site and the Proposed Development.
- 1.2.2 For the avoidance of doubt, the following areas are defined, as shown in ES Vol 3 Figure 1-2:
 - the 'Solar Array Development Area (SADA)' comprising the area that would include solar
 photovoltaic (PV) modules and support frames, internal access tracks, cabling, inverters,
 transformers, the solar array substation (known as the 'Frodsham Solar Substation) and the BESS;
 - the 'Non-Breeding Bird Mitigation Area (NBBMA)' comprising land primarily within Cell 3, which
 currently forms part of the Frodsham Wind Farm mitigation. This area of land would be used as a
 mitigation area for the anticipated displacement of wetland birds associated with the Mersey
 Estuary;
 - the 'SPEN/National Grid Substation and Access' comprising the existing SPEN/National Grid Substation and access road;
 - the 'Skylark Mitigation Area' comprising land where neutral grassland would be created during the operational lifetime of the Proposed Development for the benefit of skylarks;
 - the 'Main Site Access with Private Wire Connection' comprising the access road with Protos private wire connection to the west of the SADA; and,
 - the 'Main Site Access without Private Wire Connection' comprising the access road without private wire connection to the west of the SADA.
- 1.2.3 The Site encompasses all of the above areas, and totals approximately 336 ha.
- 1.2.4 The Site overlaps with Mersey Estuary SSSI. Two internationally designated sites, Mersey Estuary Special Protection Area (SPA) and Mersey Estuary Ramsar, are located 115 m northwest of the Site.

The NBBMA will provide a mitigation area for the anticipated displacement of wetland birds associated with the Mersey Estuary.

1.2.5 Three Local Wildlife Sites (LWS) overlap with the Site. The Frodsham, Helsby and Ince Marshes LWS extends across the majority of the SADA, the whole of the Skylark Mitigation Area, and sections of the Main Access Route. Frodsham Field Studies Centre LWS overlaps with the SPEN/National Grid Substation, whereas Easton Clifton Tip LWS overlaps with the access track to the SPEN/National Grid Substation.

1.3 BNG Statement

- 1.3.1 The Proposed Development is not subject to statutory BNG requirements. The Government's target date for the application of mandatory BNG to DCOs for NSIPs is November 2025¹, at which point DCO applications would be required to demonstrate a quantifiable BNG of at least 10 % under the Environment Act 2021. However, the Proposed Development has committed to delivering a measurable increase in both habitat and hedgerow units (a minimum increase of 10 % in habitat and hedgerow units and no net loss in watercourse units).
- 1.3.2 A BNG assessment has been undertaken utilising DEFRA's Statutory Biodiversity Metric Calculator², to provide evidence of achievable on-site increase in habitat, hedgerow and watercourse units associated with the Proposed Development.
- 1.3.3 This document (and accompanying Biodiversity Metric Spreadsheet) outlines the pre-development and project post-development biodiversity value. The BNG assessment has been largely based on ES Volume 3 Figure 2-3 Illustrative Environmental Masterplan. Figures 2 to 5 show additional details of the proposed post-development proposals for the Site, as follows:
 - Figure 1 (a-e): Habitat Plan: shows the baseline habitats
 - Figure 2 Proposed Retained Habitats: shows the area habitats to be retained;
 - Figure 3 Proposed Lost Habitats: shows the area habitats to be lost;
 - **Figure 4 Proposed Post-Development Created Habitats**: shows the post-development area habitats to be created;
 - Figure 5 Proposed Hedge Plan: shows the hedgerows to be retained, lost and created;
 - **Figure 6 Proposed Watercourse Plan**: shows the watercourses to be retained, lost and created; and,
 - **Figure 7:** Modular River Physical Survey Location Plan.

20/03/2025].

https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-nsip-reforms-action-plan/nationally-significant-infrastructure-action-plan-for-reforms-to-the-planning-process
 https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides
 Last Accessed:

- 1.3.4 There has been no known degradation of the Site, and as such baseline habitats are taken to be those recorded during baseline habitat surveys.
- 1.3.5 No irreplaceable habitats are present within the Site.
- 1.3.6 As described above, the NBBMA will provide mitigation for impacts upon the Mersey Estuary. SSSI, SPA and Ramsar. In accordance with DEFRA Guidance 'What you can count towards a development's biodiversity net gain' (DEFRA, 2023³), mitigation or compensation to a special area of conservation, special protection area, or protected species can only count 'in part' towards BNG. For mitigation and compensation actions, at least 10% of the developer's biodiversity units must come from additional activities other than mitigation and compensation. As such, at least 10% of the Proposed Development's habitat, hedgerow and watercourse units must come from habitat/hedgerow creation/enhancement measures which are located outside of the NBBMA. However, as detailed above the Proposed Development is not subject to statutory BNG requirements.

1.4 Legislative and Planning Framework

- 1.4.1 Biodiversity Net Gain is a government strategy which requires developers to include habitat creation and enhancement in plans for new building and infrastructure projects. In order to demonstrate BNG, developments must be designed to increase the level of biodiversity compared to what existed predevelopment; in most cases by creating and enhancing natural features within the boundary of the specific development, or else by contributing to the creation and management of biodiversity areas locally or nationally. The application must be show how habitats can be created or enhanced so that there will be an overall unit value of ≥10% than the value calculated from the ecological baseline surveys (pre-development).
- 1.4.2 As stated above, although the Proposed Development is not subject to statutory BNG requirements, the Proposed Development has committed to delivering a measurable increase in both habitat and hedgerow units. In order to demonstrate a measurable increase in both habitat and hedgerow units, DEFRA's Statutory Biodiversity Metric ('the Metric') has been used to calculate numerical values (units) for defined habitat, hedgerow and watercourse features. The metric utilises a range of factors to calculate these values; the area measured in hectares, the distinctiveness of the habitat (intrinsic value and rarity), the condition (quality), and strategic significance (ecological value based on location).⁴
- 1.4.3 In order to claim a biodiversity net gain, as detailed within The Statutory Biodiversity Metric User Guide (DEFRA, 2024)⁵, a new development must adhere to certain rules which relate to the use of the Metric, as detailed within **Table 1.1**. The trading rules in the Metric set out requirements for the type

³ DEFRA (2023). What you can count towards a development's biodiversity net gain. Available at: https://www.gov.uk/guidance/what-you-can-count-towards-a-developments-biodiversity-net-gain-bng [Last Accessed 21/03/2025].

⁴ DEFRA (2023). Calculate biodiversity value using the biodiversity metric. Available at: https://www.gov.uk/guidance/biodiversity-metric-calculate-the-biodiversity-net-gain-of-a-project-or-development [Last Accessed: 20/03/2025].

⁵ DEFRA (2024). The Statutory Biodiversity Metric User Guide. Available at: https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The Statutory Biodiversity Metric - User Guide 23.07.24 .pdf [Last Accessed: 20/03/2025].

of new habitat which is acceptable as compensation for the loss of another habitat; broadly, habitats must be replaced like-for-like or better.

Table 1.1: Biodiversity metric rules (from the Metric User Guide)

Rule	Detail
Rule 1	The trading rules of this biodiversity metric must be followed.
Rule 2	Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.
Rule 3	To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites.
Rule 4	In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

2 METHODOLOGY

2.1 Habitat Survey and Condition Assessment

- 2.1.1 Habitat data collected from the extended habitat survey (gathered using the UK Habitat Classification (UKHab)⁶; see **Appendix 7.1: Habitats and Vegetation Baseline Report** for further details), was used to assign a habitat type to each habitat parcel within the Metric. Where no direct habitat translation between UKHab and the Metric exists, professional judgement was used.
- 2.1.2 An assessment of habitat condition was undertaken by A. Hulme BSc (Hons) between February 2023 and September 2024. Habitats were assessed in accordance with the relevant habitat condition criteria for the specific habitat type contained within condition assessment criteria⁷ published alongside the Metric.
- 2.1.3 Proposed landscaping detailed within Figure 2-3 Illustrative Environmental Masterplan has been directly assigned a UKHab category, with reference to the UKHab resources and using professional judgement. The target condition of these habitats was assigned based on the likely achievable condition of the proposed habitat type, taking into account local conditions (e.g., soil nutrient levels) and proposed management. An Outline Landscape and Ecological Management Plan [EN010153/DR/7.13] has been prepared to support the application, and this sets out how the habitats within the site would be created, managed and monitored to deliver the target conditions.

Limitations

- 2.1.4 Following guidance within the Metric User Guide, a precautionary approach was taken to assessing baseline conditions, whereby any condition criteria that could not be measured (e.g., due to the time of year or recent mowing) were assumed to have been passed.
- 2.1.5 Access to the Skylark Mitigation Area was limited to public right of ways located within and surrounding this area. As such, the habitats within this area were surveyed from available vantage points. Habitats within this area comprise modified grassland and associated neutral grassland field margins, together with boundary ditches; the modified grassland is of low ecological value. Furthermore, the Skylark Mitigation Area would not be directly impacted by the Proposed Development, with the exception of the creation of neutral grassland, as such, this is not considered a significant limitation to the assessment.
- 2.1.6 Habitat condition assessments were undertaken between February 2023 and September 2024. Where condition assessments were undertaken outside of the optimal botanical survey window a precautionary approach to assessment was applied.

⁶ www.ukhab.org

⁷ DEFRA (2024). Statutory Biodiversity Metric Condition Assessments. Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides?fbclid=lwAR3t_S8djN97HZzsb8H9ISdfVqDiUZJcSR7pp4Kz5zHRFK5KW0LjPBlmRcw_[Last Accessed 21/03/2025].

2.2 The Modular River Physical Module Survey

- 2.2.1 A Modular River Physical (MoRPh) survey was undertaken of The River Weaver, Hoolpool Gutter and an unnamed tributary to the River Weaver (see **Figure 7**: Modular River Physical Survey Location Plan).
- 2.2.2 The MoRPh survey⁸ is a hydro-morphological assessment method that includes many of the Environment Agency's River Habitat Survey's⁹ components and so provides compatible information. However, it provides a number of modifications and additions that allow it to deliver a more detailed local picture of a river and its margins than the River Habitat Survey method.
- 2.2.3 The MoRPh survey was undertaken on the 20th and 21st January 2025 by K. Love MSc and A. Hulme BSc (Hons), both of whom are certified to undertake Modular River Survey River Condition Assessments and to interpret River Corridor Assessment Indicators and Scores for baseline and post-intervention River Metric scenarios.
- 2.2.4 During a MoRPh survey, information is gathered from three river units of different sizes (module, subreach, reach) based upon both primary field survey and secondary sources, e.g., map data. Module (MoRPh) and sub-reach (MultiMoRPh) surveys are conducted in the field using the MoRPh survey method, focusing on a single river channel and its immediate margins. The length of the MoRPh module is approximately double the width of the river channel up to a maximum 40 m length. The survey module extends 10 m back from the bank tops on both sides of the river to characterise the riparian zone.
- 2.2.5 For the purpose of surveying the Site, the MultiMoRPh5 methodology was chosen, this methodology allows entire reaches to be surveyed using sub-reaches covering a minimum of 20% of the reach's total length, effectively balancing local sub-reach MoRPh detail with overall reach coverage. The MultiMoRPh5 survey locations are shown in Figure 7: Modular River Physical Survey Location Plan. Watercourses assessed as being culverts or ditches are not subject to MoRPh survey. Watercourses within the Proposed Development subject to MoRPh survey were determined on the basis of being a river or canal, as per the guidance on watercourse type within the Metric User Guide.
- 2.2.6 On completion of the survey, all information was entered into the Cartographer online platform10, which determined the river type, and provided indicators of the condition of the sub-reach and an overall condition score for the MoRPh5 sub-reach surveyed.
- 2.2.7 In order to appropriately assess the post-works impacts of the Proposed Development (positive or negative) upon riverine habitats where impacts would occur to the watercourse (e.g. areas requiring new or updated vehicular crossing points and areas of proposed river corridor habitat enhancements), these changes were modelled as a scenario within the Cartographer platform and the condition forecasted input to the Metric.

Limitations

⁸ https://modularriversurvey.org/wp-content/uploads/MoRPh-Manual-ver-14 Oct22.pdf [Last Accessed 21/03/2025].

⁹ http://www.riverhabitatsurvey.org/ [Accessed 20/03/2025].

¹⁰ https://cartographer.io/ [Accessed 06/08/2024].

2.2.8 As detailed in The MoRPh Survey Technical Reference Manual (2022)¹¹, MoRPh surveys can be undertaken at any time of year, although they are best completed between May and September inclusive when aquatic vegetation is clearly apparent. As detailed in 'A Guide to Assessing River Condition' (Gurnell *et al.*, 2024¹²), if surveys have to be conducted in Winter, observations of remnant and decaying vegetation from the previous summer should be used to estimate the potential presence and likely typical abundance (during the late spring- 6 early summer) of short and tall herbs/grasses on the bank top and bank face, and aquatic vegetation morphotypes along the water-channel margin and on the river bed. As the surveys were undertaken during the winter, observations of remnant and decaying vegetation from the previous summer were taken into consideration during the survey.

2.3 Biodiversity Metric

- 2.3.1 A BNG Assessment has been undertaken using DEFRA's Statutory Biodiversity Metric². The Metric provides a way of measuring and accounting for changes in the biodiversity value of a site by using habitats as a proxy for biodiversity.
- 2.3.2 The BNG assessment has been undertaken by C. Scott *MRes ACIEEM*, a suitably experienced ecologist with experience utilising biodiversity metrics.
- 2.3.3 The Metric takes into account a range of factors when calculating the value of a habitat (measured as biodiversity units), including the habitats area/length (measured in hectares/km), it's distinctiveness (it's intrinsic value and rarity), condition (the quality of the habitat being assessed), and strategic significance (how ecologically valuable is the location). The distinctiveness of a habitat is pre-set within the Metric and cannot be changed.
- 2.3.4 For created habitats additional risk multipliers are assigned to account for the difficulty of creating a particular habitat type, time required to achieve the target condition, and where habitat creation is off site, spatial risk.
- 2.3.5 Units for area habitats (e.g., fields), hedgerows and ditches are accounted for separately in the Metric.
 Units are not directly interchangeable between habitat types.
- 2.3.6 Habitat areas were calculated using GIS software.
- 2.3.7 Where the value of habitats following works is greater than those at the baseline, a net gain will be predicted, or a net loss predicted where the post-works habitat value is lower than the baseline. In addition, the Metric promotes a 'no down-trading' policy within the Metric, whereby habitat loss must be compensated by habitat of the same value or higher; loss of high distinctiveness habitats such as lowland meadow and broad-leaved woodland must be compensated for on a like-for-like basis.

Strategic Significance

2.3.8 No Local Nature Recovery strategy has been published covering the Cheshire West and Chester region.

As such, the strategic significance of baseline and created habitats has been classified in line with

¹¹ The Modular River Survey (2022). The MoRPh Survey Technical Reference Manual 2022 version V14.

¹² A. M. Gurnell, J. England, S. J. Scott and L. J. Shuker (2024). A Guide to Assessing River Condition. Part of the Rivers and Streams Component of the Biodiversity Metric Watercourse Module for calculating Biodiversity Net Gain.

- interim guidance for assessing strategic significance in the Cheshire West and Chester Council: Interim Biodiversity Net Gain and Ecological Networks guidance note March 2024¹³ and in accordance with Table 8 of the Metric User Guide.
- 2.3.9 In accordance with the interim guidance, as the whole Site is located within the Ecological Network (in this case, the whole Site is located within a 'Core Area'), the strategic significance of each habitat feature, both baseline and post-development, has been categorised as 'high' (Formally identified in local strategy). High strategic significance gives the habitat unit weighting a x 1.15 multiplayer to account for the more ecologically valuable location

Limitations

Biodiversity Metric Calculation

2.3.10 It should be noted that the Metric uses habitats as a proxy for biodiversity and calculates only the relative biodiversity value of a site, and therefore cannot quantify impacts absolutely. The Metric accounts only for direct impacts to habitats, and as such cannot fully quantify all negative or positive impacts resulting from a development.

¹³ Cheshire West and Chester Council (2024). Interim Biodiversity Net Gain and Ecological Networks guidance note - March 2024. Available at: https://consult.cheshirewestandchester.gov.uk/resources/portal/supportingfiles/787326 [Last accessed 21/03/2025].

3 BASELINE

3.1 Baseline BNG Assessment

3.1.1 Full results of the BNG Assessment can be seen in the Metric spreadsheet for the application, submitted as a separate document.

Summary of BNG Unit Baseline

- 3.1.2 Baseline habitats with the Site generate a total of 1692.01 habitat units (379.48 units from the NBBMA and 1314.28 units from the remainder of the Site). Baseline hedgerow units generate a total of 54.25 hedgerow units (0.82 units from the NBBMA and 53.44 units from the remainder of the Site). Watercourse units generate a baseline of 109.71 watercourse units (8.51 units from the NBBMA and 101.19 units from the remainder of the Site).
- 3.1.3 A breakdown of the individual habitats present, including their condition, is summarised in the corresponding shapefiles (provided separately). Baseline habitats are shown in **Figures 1 (a-e).**

5 POST DEVELOPMENT

5.1 Post-development BNG Assessment

Post-works BNG Summary

- 5.1.1 The development footprint results in the loss of 131.24 ha of habitats, equating to 477.23 habitat units (79.53 units from the NBBMA and 401.51 units from the remainder of the Site). The development footprint results in a loss of 0.18 km of hedgerows, equating to 1.49 hedgerow units (0.05 units from the NBBMA and 1.45 units from the remainder of the Site. The development footprint results in a loss of 0.16 km of watercourse, equating to 0.78 watercourse units (0.78 units from the remainder of the Site).
- 5.1.2 Created habitats generate a total of 669.93 habitat units (92.56 units from the NBBMA and 577.37 from the remainder of the Site). Enhanced habitats generate a total of 4.73 habitat units (4.73 units from the remainder of the Site).
- 5.1.3 Created hedgerows generate a total of 49.74 hedgerow units (49.74 units from the remainder of the Site).
- 5.1.4 Created watercourses generate a total of 1.10 watercourse units (1.10 units from the remainder of the Site). Enhanced watercourses generate a total of 83.34 watercourse units (9.45 units from the NBBMA and 73.89 units from the remainder of the Site). Although D57 will be removed during habitat creation works within the NBBMA, the ditch will be reinstated within two years of initial removal, and is anticipated to achieve baseline condition, furthermore, following its reinstatement and due to the proposed habitat management measures to be implemented, the condition of this ditch is expected to be enhanced (from poor to moderate). As such, and in accordance with The Statutory Biodiversity Metric User Guide (DEFRA, 2024), this ditch has been assigned as being enhanced within the Metric, with a one-year delay in starting the habitat enhancement. A series of ditches will also be enhanced through the reduction in riparian zone encroachment. These ditches are shown on Figure 5 and identified on the corresponding shapefiles (provided separately).
- 5.1.5 A breakdown of the habitats proposed to be created and enhanced, including their target condition is summarised in **Tables 5.1 to 5.3** below. Post-development scenario is shown on **Figure 2-3 Illustrative Environmental Masterplan** and also **Figures 3 to 5.**

Table 5.1: Summary of Post Development Objectives – Habitats

Landscape Habitat Type	BNG Habitat Type	Condition Sheet	Target Condition	Targeted Criteria	Time to Target Condition (Years)	
Habitat Creation						
Proposed native woodland	Other woodland; broadleaved	Woodland	Poor	N/A – poor condition targeted	5	
Proposed native woodland	Lowland mixed deciduous woodland	Woodland	Poor	N/A – poor condition targeted	10	
Neutral grassland (NBBMA)						
Marshy grassland (NBBMA)		Grassland (Medium, high and very high distinctiveness)				
Retained neutral grassland/grazing within solar array security fence line ¹⁴	Other neutral grassland		Moderate	A, B, C, D	5	
Skylark Mitigation Area			Good	A, B, C, D, E, F	10	
Retained neutral grassland/grazing	Modified	,	Good	A, B, C, E, F, G	7	
within solar array security fence line ¹⁵	grassland		Moderate	C, E, F, G	4	

¹⁴ 'Retained neutral grassland/grazing within solar array security fence line; Other neutral grassland' comprises areas which have been identified as other neutral grassland during baseline surveys, and will be retained as such during the construction and operation of the Proposed Development.

¹⁵ 'Retained neutral grassland/grazing within solar array security fence line: Modified grassland' comprises areas where grassland would be created within the Solar Array Development Area during habitat creation.

BNG Habitat Type	Condition Sheet	Target Condition	Targeted Criteria	Time to Target Condition (Years)	
Habitat Creation					
Reedbeds	Wetland	Moderate	B, C, D, E, F, I	7	
Mixed scrub	Scrub	Moderate	A, B, C, D	10	
Ponds (non- priority habitat)	Pond	Moderate	A, B C, F, G, H, I or A, C, F, G, H, I	3	
	Reedbeds Mixed scrub Ponds (non-	Reedbeds Wetland Mixed scrub Scrub Ponds (non-	Type Condition Sheet Target Condition Reedbeds Wetland Moderate Mixed scrub Scrub Moderate Ponds (non-Pond Moderate	Type Condition Sheet Target Condition Targeted Criteria Reedbeds Wetland Moderate B, C, D, E, F, I Mixed scrub Scrub Moderate A, B, C, D Ponds (non-priority habitat) Pond Moderate A, B C, F, G, H, I or	

Table 5.2: Summary of Post Development Objectives – Hedgerows

Landscape Habitat Type	BNG Habitat Type	Condition Sheet	Target Condition	Targeted Criteria	Time to Target Condition (Years)		
Hedgerow Creation							
Proposed native hedgerow	Native hedgerow (species rich)	Hedgerow	Moderate	A1, A2, B1, B2, C2, D1, D2	5		
Proposed native hedgerow (maintained at a low height)	Native hedgerow (species rich)	Hedgerow	Poor	B1, B2, C2, D1, D2	5		
Proposed native trees and shrubs	Native hedgerow with trees (species rich)	Hedgerow	Poor	A1, A2, , C2, D1, D2, E2	10		

Table 5.3: Summary of Post Development Objectives – Watercourses

Landscape Habitat Type	BNG Habitat Type	Condition Sheet	Target Condition	Targeted Criteria	Time to Target Condition (Years)		
Watercourse Creation	Watercourse Creation						
Proposed ditch	Ditches	Ditch	Poor	N/A – poor condition targeted	1		
Watercourse Enhancement							
Existing drainage ditch (NBBMA) (enhanced)	Ditches	Ditch	Moderate	A, B, C, D, E, F, G	n/a		

6 DISCUSSION

- 6.1.1 The Proposed Development will generate a net change of +194.86 (11.52 %) habitat units, +48.25 (88.92 %) hedgerow units and +14.65 (13.35%) watercourse units.
- 6.1.2 **Tables 6.1** and **6.2** prove a breakdown of the proportion of units that will be created from the NBBMA versus the remainder of the Site.

Table 6.1: Breakdown of Baseline, Post Intervention and Net Change of Units for the Site, NBBMA and Site Excluding NBBMA

Location	Stage	Habitat Units	Hedgerow Units	Watercourse Units
	Baseline	1,692.01	54.25	109.71
Site	Post Intervention	1,868.86	102.50	124.36
	Net Change	194.86	48.25	14.65
NBBMA	Baseline	379.48	0.82	8.51
	Post Intervention	392.51	0.77	14.23
	Net Change	13.03	- 0.05	5.72
Site Excluding NBBMA	Baseline	1,324.28	53.44	101.19
	Post Intervention	1,492.29	101.73	110.13
	Net Change	178.01	48.29	8.93

Table 6.2: Breakdown demonstrate least 10% of biodiversity units.

Feature/Question	Habitats	Hedgerow	Watercourse Units
Site Baseline Units	1,692.01 Units	54.25 Units	109.71 Units
10% of the Site's Baseline Units	169.2	5.425	10.97
Net Change in the Proposed Development's units located outside the NBBMA?	178.01 units	48.29 units	8.93 units
Is 10% of the Proposed Development's units come from measures located outside the NBBMA?	Yes	Yes	No

6.1.3 When taking into account the NBBMA and the remainder of the Site the Proposed Development achieves at least 10% increase in biodiversity units (habitats, hedgerows and watercourses). When excluding the NBBMA 10% is not achieved, however a measurable increase in biodiversity units (habitats and hedgerows) are recorded and the project design commitments (a minimum increase of 10 % in habitat and hedgerow units and no net loss in watercourse units) are met.

- 6.1.4 The Proposed Development meets all trading principles, with the exception of the loss of reedbed. Reedbeds have been classified in strict accordance with UKHab Classification; however, due to the small and isolated nature of the majority of the areas of reedbed within the Main Development Area (i.e., small 'clumps' of reeds which would not logically constitute a reedbed). These clumps, of reeds, are considered unlikely to function in the same way as larger and ecologically connected areas of the reedbed. Furthermore, the areas of reedbed subject to loss are either dry, encroached with scrub/trees or are not located adjacent to/connected to open water. These areas are therefore considered transient in nature and would likely be subject to continued drying and therefore change in the future. As such, in the absence of the Proposed Development, it is considered likely that these areas would be lost in the short to medium term. For photographs of the identified reedbed refer to Annex 1 in Technical Appendix 7.1: Habitats and Vegetation.
- 6.1.5 Measures relating to the creation, management and monitoring of habitats created and enhanced, as well as other biodiversity enhancement measures, are set out within the **Outline Landscape** and **Ecology Management Plan (oLEMP) [EN010153/DR/7.7].**
- 6.1.6 Overall, it is considered that the increase in units generated as part of the Proposed Development are proportionate to the levels of impact, with the Proposed Development providing other qualitative measures to enhance biodiversity, as outlined in **Chapter 7: Ecology** and **Chapter 8: Ornithology**.





















