Biodiversity Assessment

Land at Foots Farm, Thorpe Road, Clacton-on-Sea, Essex, CO15 4TN.

April 2024

Project: Land at Foots Farm, Thorpe Road, Clacton-on-Sea, Essex, CO15 4TN.

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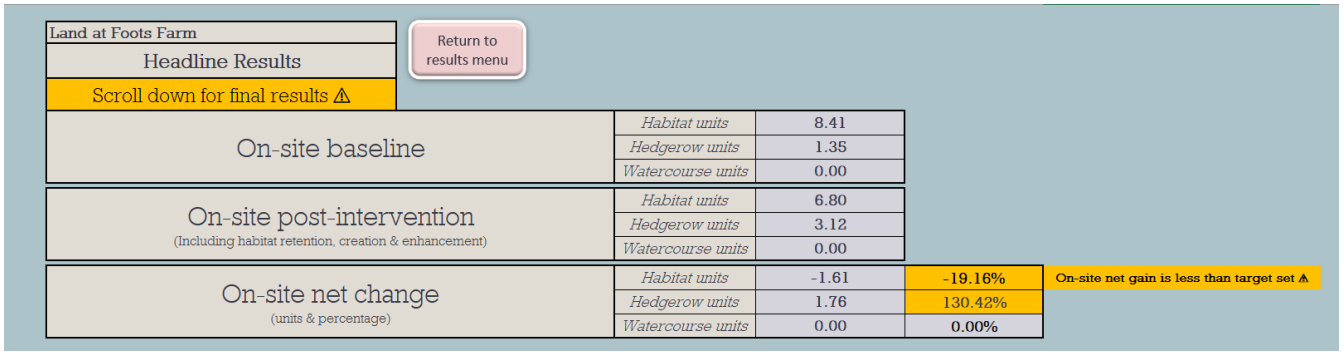
1.0 Executive summary

1.1 Biodiversity Net Gain is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation.

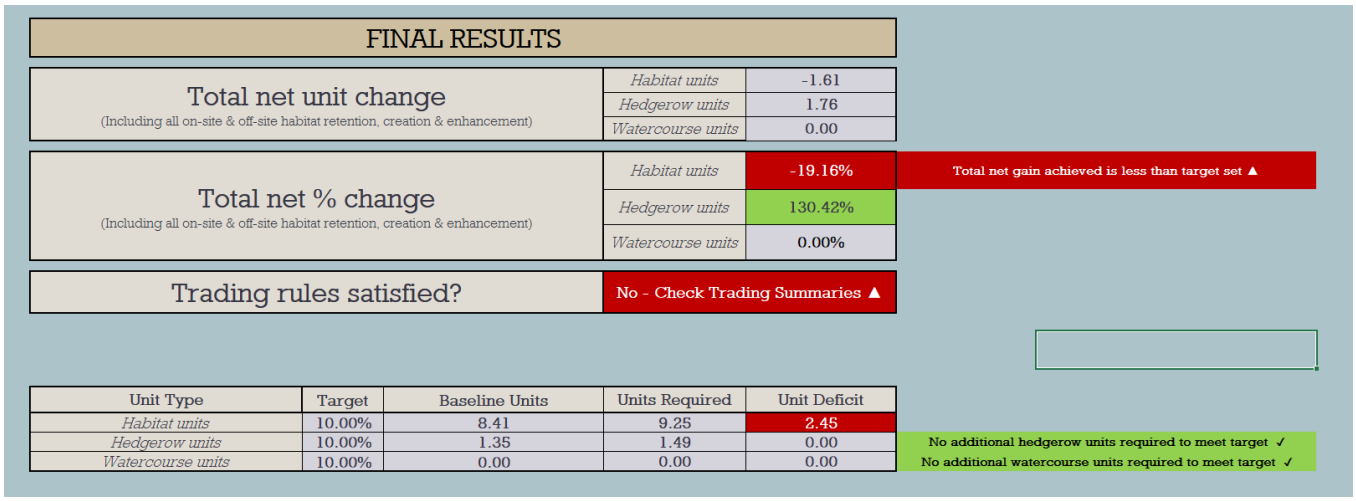
1.2 The project's net gain target was to deliver a +10% increase in biodiversity units above the baseline measured by Defra's Statutory Biodiversity Metric (draft).

1.3 The proposed post-intervention biodiversity score will deliver a predictive and net biodiversity loss of -19.16% in Habitat Units (Table 1). Habitat units will be purchased to ensure a 10% net biodiversity gain is achieved and the trading rules are satisfied.

Table 1: Defra's Statutory Biodiversity Metric (draft) Headline Results



Land at Foots Farm				
Headline Results	Return to results menu			
Scroll down for final results ⚠				
On-site baseline	*Habitat units*	8.41		
	Hedgerow units	1.35		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	6.80		
	Hedgerow units	3.12		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	-1.61	-19.16%	On-site net gain is less than target set ⚠
	Hedgerow units	1.76	130.42%	
	Watercourse units	0.00	0.00%	



FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-1.61	
	Hedgerow units	1.76	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-19.16%	Total net gain achieved is less than target set ▲
	Hedgerow units	130.42%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	8.41	9.25	2.45	
Hedgerow units	10.00%	1.35	1.49	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

2.0 Introduction

Purpose of the report

2.1 The report aims to provide a clear and consistent document with which the developer can demonstrate their net biodiversity gain, and the planning authority can check whether the proposals meet the biodiversity gain objective.

2.2 The report's scope addresses the feasibility of demonstrating Biodiversity Gain by calculating the predicted changes in biodiversity value with the proposed development. A Biodiversity Assessment is required to provide a measurable calculation of the biodiversity units on the site before and after the proposed development. In addition, the report audits the land's biodiversity value and calculates the losses and gains in biodiversity value from changes and actions that affect biodiversity.

2.3 In preparing the biodiversity assessments, the approach has been consistent with the guidance published by:

- Defra's Statutory Biodiversity Metric (draft)
- Defra: Technical paper – The metric for the biodiversity offsetting pilot in England
- Good Practice Principles[1]
- Natural England Rules and Principles[2]

2.5 As the British Standard BS 42020:2013 advised,[3] a suitably qualified professional ecologist is appraised to ensure a rigorous and thorough independent review. In addition, Defra has aligned the biodiversity metric definition of a competent person with the British Standard on 'A process for designing and implementing biodiversity net gain' (BS: 8683). A competent person can demonstrate they have acquired, through training, qualifications or experience, or a combination of these, the knowledge and skills enabling that person to perform specified tasks.

2.6 Defra's Statutory Biodiversity Metric (draft) represents best practices for auditing the impact of development schemes upon habitats that may have a biodiversity interest. To ensure

[1] Good Practice Principles

[2] Defra's Statutory Biodiversity Metric (draft) User Guide.

[3] Biodiversity – Code of practice for planning and development, BS 42020:2013.

the proposed compensatory and enhancement measures are 'adequate' and help demonstrate 'no-net-loss' of biodiversity due to the proposed development. This approach is consistent with the National Planning Policy Framework.

2.7 Biodiversity Net Gain is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. The Defra's Statutory Biodiversity Metric (draft) uses habitats to proxy for the broader biodiversity types scored according to their relative biodiversity potential.

2.8 The project's net gain target was to increase biodiversity units above the baseline Defra's Statutory Biodiversity Metric (draft) measured. To achieve a Biodiversity Net Gain, the project must demonstrate that it has followed the Rules and Principles of Biodiversity Net Gain.

2.9 The Defra's Statutory Biodiversity Metric (draft) does not include species explicitly and uses habitat as a proxy for wider biodiversity, with different habitats scored according to their relative biodiversity potential. As a result, the metric remains the same levels of species protection.

Site Location and General Description

2.10 The site is dominated by dense scrub and surrounded by hedges.

Development Proposal

2.11 The proposal is to redevelop the site with new dwellings.

Planning Status

2.12 The proposed development is applied for planning.

3.0 Methodology

Desk study

3.1 A desk study was conducted to collect relevant data on the statutory and non-statutory designated sites, local strategic plans and Nature England's Nature Recovery Networks.

Habitat Survey

3.2 The vegetation and habitat types were classified according to the UK Habitat Classification.[4] The Biodiversity Metric 4.0 operates on the UK Habitat Classification system.

[4] Preliminary Ecological Assessment

The UK Habitat Classification (UKHab) is a comprehensive habitat classification system for the UK to provide outputs suitable for ecological impact assessment, habitat metrics and better data integration between organisations.[5] The UKHab translates easily into Priority Habitat Types and Annex 1 Habitat Types.

Condition Assessment

3.3 The condition of discrete habitat parcels was assessed to specific criteria from the latest metric from Defra.[6]

Calculating Biodiversity Units

3.4 Data was populated into Defra's Statutory Biodiversity Metric (draft).

Survey Constraints

3.5 The survey was undertaken during the optimal survey season. However, given the nature of the site, an accurate record of the habitats and species present was recorded. It may be that additional plant species were present, which were not visible at the time of the survey. Notably, species diversity and dominant plant assemblages may increase or change throughout the season.

3.6 Whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. However, the survey provides a general assessment of the potential nature conservation value of the site and needs to include a definitive list of plant species.

4.0 Results

4.1 The site's baseline assessment has been measured from the preliminary ecological assessment information provided by the client, in line with the development proposal. The habitats have been divided into calculable areas for a more precise delineation of habitat loss through development. Marginal variations have been assumed for habitats to be retained and enhanced. However, this does not have any overall impact on biodiversity net gain.

[5] Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020) The UK Habitat Bank Classification User Manual Version 1.1.

[6] Panks, et al., 2021b, Biodiversity Metric 3.0: Auditing and accounting for biodiversity – User Guide Technical Supplement, Peterborough, Natural England.

Baseline Assessment

Habitat Units

4.2 Two broad habitat types were recorded on the proposed development site (Table 2). The Habitat Condition Assessment categorised the functionality of these habitats. The on-site baseline biodiversity assessment calculated the biodiversity value as +8.41 Area-based Habitat Units.

Table 2: Baseline Biodiversity Assessment - Habitat Units

Broad Habitat	Habitat Type	Distinctiveness	Biodiversity Units	Habitat Condition
Heathland and scrub	Scrub	Medium	8.27	poor
Individual trees	Urban	Medium	0.14	poor

Pond Hedgerow Units

4.3 Hedgerows were present. The baseline hedgerow units are +1.35.

Watercourse Units

4.4 No watercourse units are present.

Predicted Post-biodiversity Assessment – Habitat Units

4.5 The predicted post-biodiversity assessment has been undertaken based on the proposed design of the development and existing ecological features. Natural England automatically assigns the predicted habitats created or enhanced a biodiversity value based on several risk factors, such as accounting for the time it takes the habitat to reach the prescribed distinctiveness, habitat condition or to become fully functional.

4.6 Four broad habitat types are proposed for the proposed development site. The predicted on-site habitats include urban trees, modified grassland and vegetated gardens (Table 3). The proposed post-intervention biodiversity score will deliver +6.80 Area-based Habitat Units.

Table 3: Predicted Biodiversity Units Associated with Risks – Habitat Units

Habitat Type	Time to condition in years	The difficulty of creation or enhancement	Strategic significance	Associated biodiversity units
Urban tree	10	Low	Location ecological desirable	2.76
Modified grassland	4	Low	No strategy	2.54
Sealed surface	0	Low	No strategy	0.00
Vegetated gardens	1	Low	No strategy	1.24

Hedgerow Units

4.7 Hedgerow enhancement is proposed, generating +3.12 units.

Strategic Significance

4.8 Several major roads within the adjacent landscape have created barriers to dispersing a range of species which are unlikely to colonise the created habitat. Consequently, most baseline and post-intervention habitats are allocated as 'low strategic significance value' due to the lack of ecological connectivity.

4.9 Trees have been assigned as ecologically desirable. Under the right conditions, urban trees can support rich biodiversity (including lichens, bryophytes, invertebrates and birds). They can provide connectivity between established reservoirs of urban biodiversity and contribute towards maintaining viable urban populations within these sites. Native species provide the greatest benefit for biodiversity and are the preferred option. However, tree planting in urban areas has long included non-native species. These species can still contribute positively, mainly by providing a seasonal food source for nectar feeders (and other invertebrates) and supporting vertebrates that feed on species hosted by non-native trees.

Biodiversity Net Gain Principles

4.10 Natural England has several rules that must be followed when applying the metric if a project's biodiversity net gain is achieved. Also, they have included several principles that should be used to inform the metric.

4.11 Establishing good practice CIRIA, CIEEM and IEMA have developed principles on good practice to achieve Biodiversity Net Gain. These principles provide a framework that helps improve the UK's biodiversity by contributing towards strategic priorities to conserve and enhance nature while progressing with sustainable development. They also offer a way for the industry to show that projects follow good practice.

4.12 The Mitigation Hierarchy is a tool to aid sustainable management, providing a mechanism for making explicit decisions that balance conservation needs with development priorities.[7]

5.0 Evaluation and Recommendations

5.1 The proposed development will deliver a positive net loss in the biodiversity of -19.16% Habitat Units and a positive net gain in hedgerow units.

5.2 A Management and Monitoring Plan is required to assess the outcomes of the biodiversity net gains associated with the proposed development. The project shall employ adaptive management informed by monitoring and evaluating the results throughout management.

5.3 Biodiversity Management and Monitoring Plan: Biodiversity Net Gain requires the applicant or developer to provide details of any legal and funding mechanisms by which the long-term implementation of the plan will be secured by the developer and the management body responsible for the delivery. A Management and Monitoring Plan will assess the outcomes of the biodiversity net gains associated with the proposed development. The project shall employ adaptive management informed by monitoring and evaluating the results.

5.4 The Management and Monitoring Plan shall establish a mechanism to enable the management, maintenance, and monitoring of the predictive biodiversity features

5.5 A responsible body should be appointed to ensure that the Management and Monitoring Plan is implemented and undertaken by a competent person applying the required methodologies.

5.6 Off-setting secured by an S106 agreement will also be necessary. Habitat Units will be purchased to deliver an overall Biodiversity Net Gain. The Habitat Units must provide ecological equivalence and be a suitable receptor site to attract invertebrates. The area will require a conservation covenant and a management and monitoring plan for 30 years. The site should follow Lawton's principles of "*more bigger, better and joined up*."

JCN DESIGN & PLANNING

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Issues

Bramcote

THORPE ROAD

Drain

Pond

Hillfield

B 1442

Track

El Sub Sta

0 25 50 metre

Legend

Heathland and Scrub

Individual Trees

Project:-

Land at Foots Farm, Thorpe Road, Clacton on Sea, Essex

Description:-

Biodiversity Assessment: Baseline Habitat

Date	Drawing Scale:-
Sept 2023	1-500 @ A1
Drawing number:-	Revision:-
MA019-PL-09	00

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