

Technical Briefing Note

Project: Land off Brook Meadows, Tiptree, Colchester
(1005786)

Biodiversity Net Gain Assessment Using the DEFRA Biodiversity Metric 3.0

September 2021

1. Introduction

- 1.1. An outline application (ref. 202604) for the erection of up to 221 dwellings was submitted by Kler Group in November 2020 in relation to Land off Brook Meadows, Tiptree, Colchester, hereafter referred to as the 'site'. The application was accompanied by an Ecological Appraisal dated November 2020 prepared by Aspect Ecology. The Ecological Appraisal highlights that the site is part of a wider Local Wildlife Site (LWS) designation, with the qualifying feature within the site being the neutral grassland and associated flora. As set out in the Ecological Appraisal, the LWS is vulnerable to inappropriate management or lack of management, with scrub encroachment being a particular threat. In the absence of appropriate management, the grassland interest will therefore inevitably be lost. In contrast, the development proposals present the opportunity to introduce appropriate management of the remaining grassland areas of the on-site LWS component.
- 1.2. Nonetheless, the proposed development will result in loss of part of the LWS. In order to quantify this loss and objectively determine the level of mitigation and compensation required, the Ecological Appraisal included a Biodiversity Impact Assessment of the proposals using the Defra Biodiversity Metric 2.0. Defra has since released an updated version of the metric referred to as version 3.0. In addition, since the previous metric was completed, the Concept Masterplan and associated Landscape Strategy Plan have been revised. The information presented in the Ecological Appraisal and the latest Landscape Strategy Plan (Rev E, enclosed) has been input into the most up to date version of the Defra Biodiversity Metric 3.0 (as of September 2021). This enables the change in 'Biodiversity Units' for 'Habitats' pre- and post-development to be measured and provides indicative 'Biodiversity Compensation' values. It should be noted that due to the proposals being submitted as an outline application in illustrative form, and therefore likely to be subject to change throughout the planning process, the results of this BNGA exercise should be treated as indicative. Furthermore, due to the illustrative nature of the Landscape Strategy Plan, 70% of the built development area has been assumed to be attributed to buildings and hardstanding, with the remaining 30% recognised as private gardens.
- 1.3. An assessment of the hedgerow units has not been completed at this stage, as the proposals are not sufficiently detailed to display more than indicative hedgerow locations / extents associated with curtilages of the new dwellings. This is entirely acceptable for this stage of the planning application. Due to the size of the site and limited extent of the existing hedgerow network present, any minor reductions in hedgerow length could be readily mitigated / compensated on-site under the proposals.

- 1.4. This briefing note provides a summary of the results of the Defra Biodiversity Metric 3.0 Biodiversity Net Gain Assessment Calculator and justifies the choice of habitat definitions, distinctiveness, target habitat condition and temporal factors where appropriate. In addition, a comparative exercise has also been undertaken to respond to consultation comments received from Essex Wildlife Trust (EWT), which were provided following its review of the previously submitted Biodiversity Impact Assessment using Defra's 2.0 metric version.

2. Biodiversity Net Gain Assessment

- 2.1. This section references, justifies and discusses the habitat categories and their condition chosen from the drop-down menus of the Defra Biodiversity Metric 3.0 Biodiversity Impact Assessment Calculator (see attached extracts). The 'Ref no.' refers to column D of the Biodiversity Impact Assessment Calculator for ease of reference.

- 2.2. Two Biodiversity Net Gain Scenarios are presented, as follows:

- **Scenario 1.** This largely reflects the previously prepared Biodiversity Impact Assessment based on the Defra 2.0 metric, albeit updated to utilise the Defra 3.0 metric and based on the latest Concept Masterplan and Landscape Strategy Plan.
- **Scenario 2.** This reflects the consultation comments received from Essex Wildlife Trust (dated 02/02/2021) in response to the previously prepared Biodiversity Impact Assessment based on the Defra 2.0 metric. Specifically, Scenario 2 reflects the Wildlife Trust's 'Assessment 2' and associated (unsupported) assertions that the baseline condition of the existing grassland should be increased from 'Poor' to 'Fairly Poor' and the category of the grassland post-development should be downgraded from 'Lowland meadow' to 'Other neutral grassland' with target condition downgraded from 'Good' to 'Fairly Good'. As with Scenario 1, Scenario 2 uses the Defra 3.0 metric and is based on the latest Concept Masterplan and Landscape Strategy Plan.

Existing Site Habitats (Pre-development)

- 2.3. **Scenario 1 - Ref nos. 1-3 - 'Grassland – Other neutral grassland' – condition 'Poor'.** The majority of this habitat comprises neglected/infrequently managed rough grassland with a tussocky sward of between 5 - 30cm in height (less than 20% shorter than 7cm), with extensive areas of developing scrub present (greater than 5% coverage) at the time of survey. Evidence of rabbit grazing is present throughout, with patches of bare ground (less than 1% coverage) present where this is more evident. A small area of wet flush is present at the centre of this area, as described within the Ecological Appraisal. A small number of indicator species of higher quality grassland are present, however these are not sufficiently abundant for the grassland to qualify as a Priority Habitat in its current condition, including greater than 5% undesirable species and a Schedule 9 invasive species (Japanese Knotweed) is present. Therefore, in the Ecological Appraisal the grassland is categorised as the Phase 1 habitat type semi-improved grassland. This corresponds with the 'other neutral grassland' category under The UK Habitat Classification System¹, which the Defra metric uses, and also with the LWS citation. 'Poor' condition has been selected on the basis that the grassland passes less than three of the condition assessment criteria², as illustrated in the table below:

¹ Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1

² Panks, S., et al. (2021). Biodiversity metric 3.0: Auditing and accounting for biodiversity – Technical Supplement. Natural England.

Grassland (medium distinctiveness and above)		
1	Closely matches characteristics of specific habitat type	Pass
2	Varied sward height (>20% less than 7cm, >20% more than 7cm)	Fail
3	Cover of bare ground between 1 and 5%	Fail
4	Less than 20% bracken and 5% scrub	Fail
5	Absence of Sch9 invasive species and <5% combined undesirable species (C Thistle, Sp Thistle, Docks, Nettle, G Plantain, W Clover, Cow Parsley) or physical damage (excessive poaching, machinery use/storage etc)	Fail
Condition		Poor

- 2.4. **Scenario 2 - Ref nos. 1-3 - 'Grassland – Other neutral grassland' – condition 'Fairly Poor'.** EWT asserts that the baseline condition of the on-site grassland should be increased to 'Fairly Poor'. This has been included to inform the comparative exercise, albeit this assertion is not supported by the condition assessment criteria provided within the Defra 3.0 metric Technical Supplement (as illustrated above).
- 2.5. **This remains the same for Scenarios 1 and 2 - Ref no. 4 - 'Woodland and forest - Other woodland; broadleaved' - condition 'Moderate'.** This habitat comprises two woodland pockets that support a limited diversity of common and widespread species. The woodland pockets are lacking in canopy species diversity and age range, and do not have diverse understorey or ground flora. Despite this and following a review of the Defra 3.0 condition assessment criteria, the condition of the on-site woodland has been upgraded from 'Fairly Poor' (under the Defra 2.0 metric) to 'Moderate' condition.
- 2.6. **This remains the same for Scenarios 1 and 2 - Ref no. 5 - 'Heathland and Shrub – Mixed scrub' – condition 'Fairly Poor'.** This habitat largely comprises Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa* and Dog-rose with occasional Wild Cherry *Prunus avium*, Elder *Sambucus nigra*, and Gorse *Ulex europaeus*. The scrub is relatively even-aged and not a high-diversity type, and it does not contain any clearings, glades or rides, therefore 'fairly poor' condition has been selected.
- 2.7. **This remains the same for Scenarios 1 and 2 - Ref no. 6 – 'Sparsely vegetated land – ruderal / ephemeral' – condition 'Poor'.** This habitat is dominated by Common Nettle *Urtica dioica*, Cow Parsley *Anthriscus sylvestris*, Common Evening-primrose *Oenothera biennis* and Broad-leaved Dock *Rumex obtusifolius*. This habitat comprises botanical species which are common and widespread within the local and national context and is of relatively low biodiversity value, and does not have a particularly varied vegetation structure or a diverse range of flowering plants, hence 'Poor' condition has been selected.
- 2.8. **This remains the same for Scenarios 1 and 2 - Ref no. 7 – 'Urban – Developed land; sealed service' – condition 'N/A Other'.** This habitat comprises an area of tarmac which is largely devoid of vegetation. As such, this habitat's condition is not relevant to the assessment.

On-site Habitat Creation (Post-development)

- 2.9. For all of the created habitats, the Defra 3.0 metric automatically assigns the timeframe associated with achieving the targeted condition, which cannot be amended as part of the assessment. As such, these timescales are considered to represent a reasonable and realistic estimation of time to achieve the stated condition.
- 2.10. **This remains the same for Scenarios 1 and 2 - 'Urban – Developed land; sealed surface' – condition 'N/A - Other'.** This habitat represents the buildings and hardstanding which would

provide no measurable benefit to biodiversity. As such, the condition is assigned as 'N/A - Other'.

- 2.11. **This remains the same for Scenarios 1 and 2 - 'Urban – Vegetated garden' – condition 'Poor'.** This habitat would be located within the private curtilage of the individual properties. As the management of these habitats will be at the discretion of the occupants, and not necessarily for the benefit of biodiversity, the target condition is set at 'Poor' and achievable within 1 year.
- 2.12. **This remains the same for Scenarios 1 and 2 - 'Grassland – Modified grassland' – condition 'Poor'.** This habitat comprises amenity grassland located within areas of public open. As a conservative estimate this habitat is anticipated to achieve a 'Poor' condition in 1 year. In reality, this habitat can be managed to create a more diverse habitat and better condition, with the inclusion of areas of flowering lawn for example, however the 'Poor' condition has been selected to ensure a conservative assessment is provided at this stage.
- 2.13. **This remains the same for Scenarios 1 and 2 - 'Lakes – Ponds (Priority Habitat)' – condition 'Good'.** This habitat comprises a new drainage pond that will be created and managed to achieve a 'Good' condition within approximately 5 years, and will provide beneficial habitat conditions for a number of botanical and faunal species / Priority Species. The pond will be set within semi-natural habitat, and will include a marginal fringe of emergent vegetation and a range of submerged and floating plants. The pond will have naturally fluctuating water levels. The pond will be managed to limit / control the establishment of invasive plants. Furthermore, subject to further safeguarding measures being implemented, such as the erection of fences around the banks of this habitat to prevent access for dogs, and protection of the pond from artificial drainage, it is considered that a 'Good' condition is achievable in 5 years.
- 2.14. **This remains the same for Scenarios 1 and 2 - 'Heathland and Shrub – Mixed Scrub' – condition 'Good'.** This habitat has been allocated to areas of new landscape planting throughout the development that will be planted as native mixed scrub habitat. At least three woody species will be included within this habitat, which will be managed in such a way to ensure that no one species comprises more than 75% of the cover. Native shrub species of particular benefit would likely include fruit and nut bearing species which would provide additional food for wildlife, such as Blackthorn *Prunus spinosa*, Bramble *Rubus fruticosus* agg., Hawthorn *Crataegus monogyna*, Crab Apple *Malus sylvestris*, Hazel *Corylus avellana* and Elder *Sambucus nigra*. The scrub habitat will be of varying age and will comprise a mixture of seedlings, saplings, young shrubs and mature shrubs, and will have a number of tall herbs within a well-developed edge. The scrub habitat is anticipated to provide potential foraging opportunities for a number of faunal species in the local area in addition to providing habitat links to the existing wider landscape. This habitat is estimated to achieve a 'Good' condition within approximately 10 years.
- 2.15. **This remains the same for Scenarios 1 and 2 - 'Woodland and Forest - Other woodland; broadleaved' - condition 'Fairly Good'.** New native planting will reinforce the retained pockets of woodland at the western boundary of the site, and will increase the woody habitat cover. Species planted will be native and locally appropriate and include Silver Birch, English Oak *Quercus robur*, Alder *Alnus glutinosa*, Field Maple *Acer campestre* and Wild Cherry, with understorey comprising Holly, Dog-rose, Guelder-rose *Viburnum opulus*, Wild Privet *Ligustrum vulgare*, Hazel *Corylus avellana*, Hawthorn, Elder and Blackthorn. The enhancement of the woodland will contribute to the increased ecological value of the site, and will provide direct benefits to faunal species, through increasing the habitat suitability as a foraging resource and enhancing the connectivity through the site. This habitat is estimated to achieve a 'Fairly Good' condition within approximately 20 years.

Habitat Enhancement (Post-development)

- 2.16. **Scenario 1 - 'Grassland – Lowland Meadow' – condition change 'Lower Distinctiveness Habitat – Fairly Good'**. The enhancement of the retained areas of grassland to create lowland meadow will be of particular benefit to biodiversity, and will be located within the areas of open public space. This habitat is anticipated to achieve a 'Fairly Good' condition within approximately 12 years through the implementation of appropriate management and will provide a habitat for a wide range of botanical and faunal species. The objective will be to create species-rich grassland characteristic of the Lowland Meadow habitat type, with a varied sward height, between 1-5% coverage of bare ground, and less than 5% scrub and undesirable species. In response to the Wildlife Trust's comments regarding future recreational impacts on the grassland (notwithstanding that these would be actively managed as a result of development, compared to the current uncontrolled recreational access), the target condition has been reduced from 'Good' to 'Fairly Good' compared to the previous Defra 2.0 assessment.
- 2.17. **Scenario 2 - 'Grassland – Other neutral grassland' – condition change 'Lower Distinctiveness Habitat – Fairly Good'**. EWT suggests that it may prove too difficult for the retained areas of 'Other neutral grassland' to meet the criteria required for this habitat to be enhanced to 'Lowland Meadow'. As such, this has been reflected within the Scenario 2 approach, whereby the habitat type remains as 'Other neutral grassland' as opposed to 'Lowland Meadow'. This habitat is anticipated to achieve a 'Fairly Good' condition within approximately 10 years through the implementation of appropriate management and will provide a habitat for a wide range of botanical and faunal species.
- 2.18. **This remains the same for Scenarios 1 and 2 - 'Woodland and Forest - Other woodland; broadleaved' - condition change 'Moderate – Good'**. This habitat would be retained and enhanced, and is estimated to achieve a 'Good' condition within approximately 10 years.
- 2.19. **This remains the same for Scenarios 1 and 2 - 'Heathland and Shrub – Mixed Scrub' – condition change 'Poor – Good'**. A proportion of the existing scrub habitat would be retained and enhanced to achieve a 'Good' condition within approximately 10 years.

Off-site Habitat Creation

- 2.20. Under Scenario 2, which takes into account EWT's consultation response that suggests increasing the baseline condition of the on-site grassland and decreasing the distinctiveness and condition of the proposed enhanced grassland habitats, 7ha of off-site Lowland Meadow habitat creation is required in order to demonstrate a notional (1.89%) net biodiversity gain can still be achieved under the proposals.
- 2.21. An off-site solution can be brokered, for example through a provider such as The Environment Bank, who has already confirmed that suitable land is available. Lowland Meadow is not an irreplaceable habitat and for the purposes of the Defra metric this habitat type can be created within a relatively short time period. This would result in additional high-quality habitat being created, managed, and monitored off-site (albeit within the same administrative area) and is an entirely acceptable alternative approach in planning terms, supported by a recent appeal decision³.

³ See Appeal Ref: APP/Y0435/W/20/3251121

Habitat Biodiversity Net Gain Assessment Score

- 2.22. With the condition of the existing habitats currently present within the site and with the habitats to be enhanced and created as part of the proposals (as justified above) input into the Defra 3.0 metric, the total net % change for Scenarios 1 and 2 is summarised in the table below.

Biodiversity Change Summary Table

Scenario	Total Net Biodiversity Unit Change	Total Net Biodiversity Percentage Change
Scenario 1	+11.54 units	+20.32%
Scenario 2	+1.51 units	+1.89%

3. Discussion

- 3.1. In summary, the Defra 3.0 Biodiversity Net Gain Assessment indicates that the development proposals can achieve a net biodiversity gain under both Scenarios 1 and 2, notwithstanding that current planning policy in Colchester does not require developments to achieve a measurable net gain
- 3.2. It is however important to note that the metric calculation only forms part of the overall assessment of biodiversity net gains and a number of specific faunal enhancements and other qualitative enhancements are also proposed under the scheme, which are anticipated to provide further net gains for biodiversity, in addition to those detailed above.
- 3.1. Such enhancements are briefly summarised below and include:
- Positive ecological management to considerable areas of retained habitats that are identified by Essex Wildlife Trust as '*vulnerable to inappropriate management*';
 - Positive management of currently unmanaged areas of woodland;
 - Increased tree planting;
 - New pond creation;
 - Extensive new hedgerow planting;
 - Increased roosting opportunities for bats;
 - Increased nesting opportunities for birds;
 - Specific nesting opportunities for Barn Owl;
 - Habitat management for reptiles and amphibians;
 - New long-term opportunities for Hedgehogs.
- 3.2. In addition, the Defra metric cannot take into account the bespoke measures provided in relation to the grassland and proposed orchid translocation exercise, which go beyond the generic approach to achieving biodiversity net gains.
- 3.3. It will also be possible to further increase the net gain of biodiversity units through the inclusion of hedgerow planting within the finalised / detailed proposal plans, which will demonstrate further increases in ecologically beneficial habitats within the site.

Enclosed:

Landscape Strategy Plan (Rev E)

Biodiversity Impact Assessment Calculator (Defra V3.0) Scenario 1 Extracts

Biodiversity Impact Assessment Calculator (Defra V3.0) Scenario 2 Extracts

Copyright

The copyright of this document remains with Aspect Ecology. All rights reserved. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Aspect Ecology.

Liability

This report has been prepared for the exclusive use of the commissioning client and unless otherwise agreed in writing by Aspect Ecology, no other party may use, or rely on the contents of the report. No liability is accepted by Aspect Ecology for any use of this report, other than for the purposes for which it was originally prepared and provided. No warranty, express or implied, is made as to the advice in this report.

Landscape Strategy Plan (Rev E)

Specimen & Feature Internal Trees

Malus hupehensis
Magnolia Spp
Carpinus 'Frans Fontaine'
Liquidambar styraciflua
Sorbus 'Golden Wonder'



Area of public open space around the western fringes of development incorporating native tree and shrub planting, equipped children's playspace, species rich wildflower grassland and formalised network of footpaths provides a high quality landscape strategy which responds to the wider landscape setting.

Species Rich Wildflower
Emorsgate EM2
General Purpose Meadow Mix, EH1
Hedgerow Mix & EM10 Tussock Mix



Open Space & Woodland Trees
Acer campestre
Alnus glutinosa
Carpinus betulus
Crataegus monogyna
Ilex aquifolium
Fagus sylvatica
Prunus avium
Quercus robur
Quercus petraea
Tillia cordata



Internal new ornamental hedge and tree planting to create a high quality residential development with wildlife benefits.

Native Structural Planting
Crataegus monogyna
Corylus avellana
Prunus spinosa
Ilex aquifolium
Rhamnus cathartica
Viburnum lanata
Acer campestre
Alnus glutinosa
Prunus avium



Retain, gap up and reinforce existing hedgerow to Pennsylvania Lane.

Existing pedestrian links to Pennsylvania Lane retained and further enhanced to provide improved accessibility to the pedestrian links and public open spaces whilst also providing access to the wider public right of way network.

Proposed Pocket Parks centrally located within the scheme helps to create a green network of spaces through the development.

Built form set back from boundaries and existing hedgerow to be retained and reinforced with native species.

Primary spine road to include wide landscape zones and grass verges with dwellings set back to allow for large canopy species tree avenue and green corridor through the centre of the development and linking the pocket parks and green spaces on the boundaries.

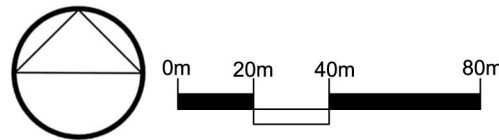
Proposed surface water balancing area located within the south eastern corner of the site provides opportunity for inclusion of wetland species offering additional biodiversity improvements whilst accommodating the drainage solutions

Southern corner of the site to be fenced off to allow for a 'dogs off leads' area providing a usable open space and localised benefits.

Existing grassland retained and managed and where necessary areas overseeded with species rich wildflower within the southern and western open spaces to enhance biodiversity.

NOTES:
Based upon the Ordnance Survey map with permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright.
Aspect Landscape Planning Ltd, West Court, Hardwick Business Park, Noral Way, Banbury OX16 2AF.
Licence 100045345
Aerial map data © 2012 Google

Copyright reserved
No Dimensions to be scaled from this drawing.



- Key:
- Application Site Boundary
 - Public Rights of Way
 - Key Vegetation Structure Retained
 - Proposed Soft Landscaping to Provide Opportunity for Ecological Enhancement
 - Proposed Native Woodland Planting
 - Footpath Links within Site Provided Through Green Infrastructure & Public Open Space
 - Proposed/Enhanced Lowland Meadow
 - Proposed Surface Water Balancing Area will Provide Opportunity for Ecological Enhancement
 - Existing Pedestrian Links and Access Points Retained & Improved
 - Proposed Area of Play (LEAP & LAP)
 - Enclosed Area for 'Dogs off Leads'
 - Proposed Pocket Parks: Centrally Located & to include Seating, Planting & Play

E	06.06.21	Updated - removal of woodland Updated to latest layout and landscape officer comments Updated to team comments Updated to latest layout	EL	CJ
D	23.06.21		NB	CJ
C	09.07.20		SB	CJ
B	16.06.20		SB	CJ
REV	DATE	NOTE	DRAWN	CHK'D
REVISIONS				

aspect landscape planning

TITLE
Land off Brook Meadows, Tiptree
Landscape Strategy Plan

CLIENT
Kler Group

SCALE 1:2,000@A3	DATE MAY 2020	DRAWN SB	CHK'D CJ
DRAWING NUMBER 7024 / ASP4 / LSP		REVISION E	

Biodiversity Impact Assessment Calculator (DEFRA V3.0)

Scenario 1 Extracts

Land at Brook Meadows, Tiptree
Headline Results

Return to
results menu

On-site baseline	<i>Habitat units</i>	56.79
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	68.33
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site net % change (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	20.32%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%
Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	11.54
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	20.32%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%
Trading rules Satisfied?	Yes	

Land at Brook Meadows, Tiptree
A-1 Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

Habitats and areas				Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Bespoke compensation agreed for unacceptable losses	Comments						
Ref	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance	Total habitat units									
1	Grassland	Other neutral grassland	9.38	Medium	Poor	Within area formally identified in local strategy	Some formal habitat or a higher quality habitat required	43.15	3.5	27.05	1.5ha of existing grassland enhanced to lowland roughland Areas of existing grassland planted with native mixed scrub Areas of existing grassland planted with native woodland Woodland retained and enhanced Areas of boundary scrub Areas of tall ruderal					
2	Grassland	Other neutral grassland	0.25	Medium	Poor	Within area formally identified in local strategy	Some formal habitat or a higher quality habitat required	1.15								
3	Grassland	Other neutral grassland	0.35	Medium	Poor	Within area formally identified in local strategy	Some formal habitat or a higher quality habitat required	1.61								
4	Woodland and forest	Other woodland, broadleaved	0.81	Medium	Moderate	Within area formally identified in local strategy	Some formal habitat or a higher quality habitat required	7.45				0.81	0.00	0.00	0.00	
5	Heathland and shrubs	Mixed scrub	0.7	Medium	Poor	Within area formally identified in local strategy	Some formal habitat or a higher quality habitat required	3.22				0.5	0.00	2.30	0.20	0.92
6	Sparsely vegetated land	Ruderal/Epithermal	0.09	Low	Poor	Within area formally identified in local strategy	Some formal habitat or a higher quality habitat required	0.21				0.00	0.00	0.09	0.21	
7	Urban	Developed land, sealed surface	0.11	V.Low	N/A - Other	Within area formally identified in local strategy	Compensation Not Required	0.00				0.00	0.00	0.11	0.00	Areas of tall ruderal in east of site

Land at Brook Meadows, Tiptree
A-2 Site Habitat Creation

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

Post development/ post intervention habitats											
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Temporal multiplier		Difficulty		Habitat units delivered	Comments	
			Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years	Final difficulty of creation		Assessor comments	Reviewer comments
Urban	Developed land; sealed surface	4.67	V.Low	N/A - Other	Within area formally identified in local strategy	Standard time to target condition applied	0	Medium	0.00	Housing, roads, etc.	
Urban	Vegetated gardens	1.2	Low	Poor	Within area formally identified in local strategy	Standard time to target condition applied	1	Low	2.66	Residential gardens	
Grassland	Modified grassland	0.5	Low	Poor	Within area formally identified in local strategy	Standard time to target condition applied	1	Low	1.11	Anesney grassland within PCS (N.B. this will including areas of flowering lawn, but these have not been factored in for simplicity)	
Lakes	Ponds (Priority Habitat)	0.21	High	Good	Within area formally identified in local strategy	Standard time to target condition applied	5	Medium	2.44	Attenuation pond designed for biodiversity	
Heathland and shrub	Mixed scrub	0.15	Medium	Good	Within area formally identified in local strategy	Standard time to target condition applied	10	Low	1.45	New native mixed scrub planting	
Woodland and forest	Other woodland; broadleaved	0.15	Medium	Fairly Good	Within area formally identified in local strategy	Standard time to target condition applied	20	Low	0.85	New native woodland planting	
						</					

A-3 Site Habitat Enhancement

Condense / Show Rows

Instructions

4.81

Biodiversity Impact Assessment Calculator (DEFRA V3.0)

Scenario 2 Extracts

Land at Brook Meadows, Tiptree

Headline Results

[Return to
results menu](#)

On-site baseline	<i>Habitat units</i>	79.74
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	59.51
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site net % change (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	-25.37%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%
Off-site baseline	<i>Habitat units</i>	14.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	35.74
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	1.51
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	1.89%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%
Trading rules Satisfied?	Yes	

Land at Brook Meadows, Tiptree
A-1 Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value					Reshape compensation agreed for unacceptable losses	Comments	
Ref	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance	Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost	Assessor comments	Reviewer comments
1	Grassland	Other neutral grassland	9.38	Medium	Fairly Poor	Within area formally identified in local strategy	64.72	3.5	0.00	24.15	5.88	40.97	1.73	1.73	Areas of existing grassland enhanced to lowland roadside
2	Grassland	Other neutral grassland	0.25	Medium	Fairly Poor	Within area formally identified in local strategy	1.73	0.00	0.00	0.00	0.25	1.73	0.00	0.00	Areas of existing grassland planted with native mixed scrub
3	Grassland	Other neutral grassland	0.35	Medium	Fairly Poor	Within area formally identified in local strategy	2.42	0.00	0.00	0.00	0.35	2.42	0.00	0.00	Areas of existing grassland planted with native woodland
4	Woodland and forest	Other woodland, broadleaved	0.81	Medium	Moderate	Within area formally identified in local strategy	7.45	0.81	0.00	7.45	0.00	0.00	0.00	0.00	Woodland retained and enhanced
5	Heathland and shrubs	Mixed scrub	0.7	Medium	Poor	Within area formally identified in local strategy	3.22	0.5	0.00	2.30	0.20	0.92	0.92	0.00	Areas of boundary scrub
6	Sparsely vegetated land	Ruderal/Epithermal	0.09	Low	Poor	Within area formally identified in local strategy	0.21	0.00	0.00	0.00	0.09	0.21	0.21	0.00	Areas of tall ruderal
7	Urban	Developed land: sealed surface	0.11	V.Low	N/A - Other	Within area formally identified in local strategy	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	Areas of hardstanding in east of site

Land at Brook Meadows, Tiptree

D-1 Off Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

Habitats and areas				Habitat distinctiveness	Habitat condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value						bespoke compensation agreed for unacceptable losses	Comments	
Baseline ref	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost		Assessor comments	Reviewer comments
1	Cropland	Cereal crops	7	Low	N/A - Agricultural	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	14.00			0.00	0.00	7.00	14.00			
2																	
3																	
4																	
5			7.00				Total Site baseline	14.00	0.00	0.00	0.00	0.00	7.00	14.00			

Land at Brook Meadows, Tiptree
A-2 Site Habitat Creation

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

[illegible]

Land at Brook Meadows, Tiptree
D-2 Off Site Habitat Creation

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

Post development/ post intervention habitats												
Broad Habitat	Proposed habitat	Area ha	Distinctiveness	Condition	Strategic significance	Temporal risk multiplier		Difficulty risk	Spatial risk multiplier	Habitat units delivered	Comments	
					Strategic significance	Standard or adjusted time to target condition	Pinal time to target condition/years	Pinal difficulty of creation	Spatial risk category		Assessor comments	Reviewer comments
Grassland	Lowland meadows	7	V.High	Good	Location ecologically desirable but not in local strategy	Standard time to target condition applied	15	High	Compensation inside LPA or NCA, or deemed to be sufficiently local, to site of biodiversity loss	35.74		
	Total Length	7.00								38.74		

A-3 Site Habitat Enhancement

Condense / Show Rows

Instructions

[illegible]

ecology • landscape planning • arboriculture

The logo for Aspect Ecology, featuring the word "aspect" in a white, lowercase, sans-serif font. A thin, light blue diagonal line is positioned above the "t", extending from the top of the letter to the right.

Aspect Ecology Ltd
West Court
Hardwick Business Park
Noral Way
Banbury
Oxfordshire OX16 2AF

T: 01295 279721
E: info@aspect-ecology.com
W: www.aspect-ecology.com