

LAND TO THE NORTH EAST OF KING GEORGE V PLAYING FIELDS

HDA Ref: 2130.24

Date: 10th November 2021

Technical Note to accompany Biodiversity Impact Assessment calculation

- 1 This briefing note accompanies the Biodiversity Impact Assessment calculation prepared in relation to the application for the proposed development of land to the north-east of King George V playing fields, Cuffley, Hertfordshire.
- 2 The Biodiversity Impact Assessment calculation is based on an adaptation of the *Illustrative Landscape Plan (Site)* (HDA, 2015). The outcome of the assessment should be taken as provisional and subject to review at the detailed design stage. It does however provide a useful indication of the likely effects of the proposed development on the habitat resource of the site and whether the development is likely to achieve 'net gain' for biodiversity.
- 3 The Biodiversity Impact Assessment calculator used was Defra's 2021 Biodiversity Metric 3.0 Calculation Tool. The plans associated with the calculation are provided within *Appendix 1* and extracts from the assessment calculator are included within *Appendix 2*.

Broad habitats

- 4 The calculations for the losses and gains in broad habitats (e.g. grassland, farmland) indicated on the *Illustrative Landscape Plan (Site)* (HDA, 2015) are summarised in *Table 1* below.

Table 1: Summary of losses and gains in broad habitats

Habitat	Baseline (prior to proposed works)	Type of Impact	Post Development	Overall Loss / Gain Post Development
Cropland	4.32ha of cereal crops generating 8.64 biodiversity units.	Retention of 0.09ha of cereal crops.	0.09ha of cereal crops retaining 0.18 biodiversity units.	-8.87 biodiversity units and -4.423ha of cropland.
		Permanent loss of 4.23ha of cereal crops.	0 biodiversity units generated by loss of 4.23ha.	
	0.103ha of arable field margins generating 0.41 biodiversity units.	Permanent loss of 0.103ha of arable field margins	0 biodiversity units generated by loss of 0.103ha	
Developed land / urban	0.465ha of bare ground generating 1.86 biodiversity units.	Retention of 0.465ha of bare ground.	0.465ha of bare ground retaining 1.86 biodiversity units.	+0 biodiversity units and +1.92ha of developed land. Bare earth retained.
		Creation of 1.92ha of developed land.	0 biodiversity units generated by creation of developed land	
		Creation of 1.26ha of vegetated gardens.	2.43 biodiversity units generated by creation of vegetated gardens in poor condition in 1 year.	+2.58 biodiversity units and +1.34ha of vegetated gardens/introduced shrubs.
		Creation of 0.08ha of introduced shrubs	0.15 biodiversity units generated by creation of introduced shrubs in poor condition in 1 year.	
		Creation of 0.07ha of SuDS.	0.26 biodiversity units generated by creation of	+0.26 biodiversity units and +0.07ha of SuDS.

Habitat	Baseline (prior to proposed works)	Type of Impact	Post Development	Overall Loss / Gain Post Development
			SuDS in good condition in 5 years.	
Scrub	N/A	Creation of 0.32ha of mixed scrub.	2.74 biodiversity units generated by creation of mixed scrub in fairly good condition in 7 years.	+2.74 biodiversity units and +0.32ha of mixed scrub.
Grassland	N/A	Creation of 0.23ha of modified grassland.	0.80 biodiversity units generated by creation of modified grassland assuming it will become established in moderate condition in 4 years.	+4.74 biodiversity units and +0.69ha of grassland habitats.
		Creation of 0.46ha of other neutral grassland.	3.94 biodiversity units generated by creation of other neutral grassland assuming it will become established in fairly good condition in 7 years.	

- 5 *Table 1* above identifies that the development proposals would result in a total increase in biodiversity units for broad habitats of +1.46 units (gain). This is an 13.35% increase over the baseline value of the site, thereby providing a strong indication that the proposed development would exceed the 10% threshold to be considered as delivering a biodiversity net gain¹.
- 6 In addition, the value of the site for biodiversity could be further enhanced through delivery of measures set out in the Ecological Appraisal report (HDA, 2021) which are not represented in the Biodiversity Impact Assessment calculation². These measures include:
- Provision of features for bats and breeding birds on new buildings and existing trees;
 - Use of fruit and nut producing species, and pollen and nectar-rich species in the formal landscape planting scheme;
 - Provision of log and brash habitat piles; and
 - Ensuring the presence of gaps in boundary fencing to allow movement of wildlife such as Hedgehogs.

Linear habitats

- 7 The Linear Impact Assessment calculation based on the loss/gain of 'linear features' (e.g. hedgerows, treelines) currently depicted comes out at +5.89 units (gain). This is an increase of 42.58% of the baseline value, thereby delivering a substantial biodiversity net gain.

Conclusion

- 8 The Biodiversity Impact Assessment calculation based on the emerging landscape scheme indicates that no net loss in biodiversity can be achieved as a result of the proposed development of land to the north-east of King George V playing fields, Cuffley³, and overall would be expected to result in a substantial net gain in biodiversity of both broad habitats and linear habitats at the site.

¹ Defra's Net Gain Consultation Proposals (December 2018) indicates that "a 10% gain in biodiversity units would be a suitable level of net gain to require in order to provide a high degree of certainty that overall gains will be achieved, balanced against the need to ensure any costs to developers are proportionate."

² This is due to inherent limitations in the Defra metric calculator.

³ Please note that the calculation is provisional and should be reviewed at appropriate design stages.

ANNEX A

Supporting Plans



KEY

- Site boundary
- Scattered trees
- Scattered scrub
- Dense scrub
- Intact species-poor hedgerow
- Intact species-rich hedgerow
- Tall ruderals
- Wet ditch
- Arable land
- Target Note

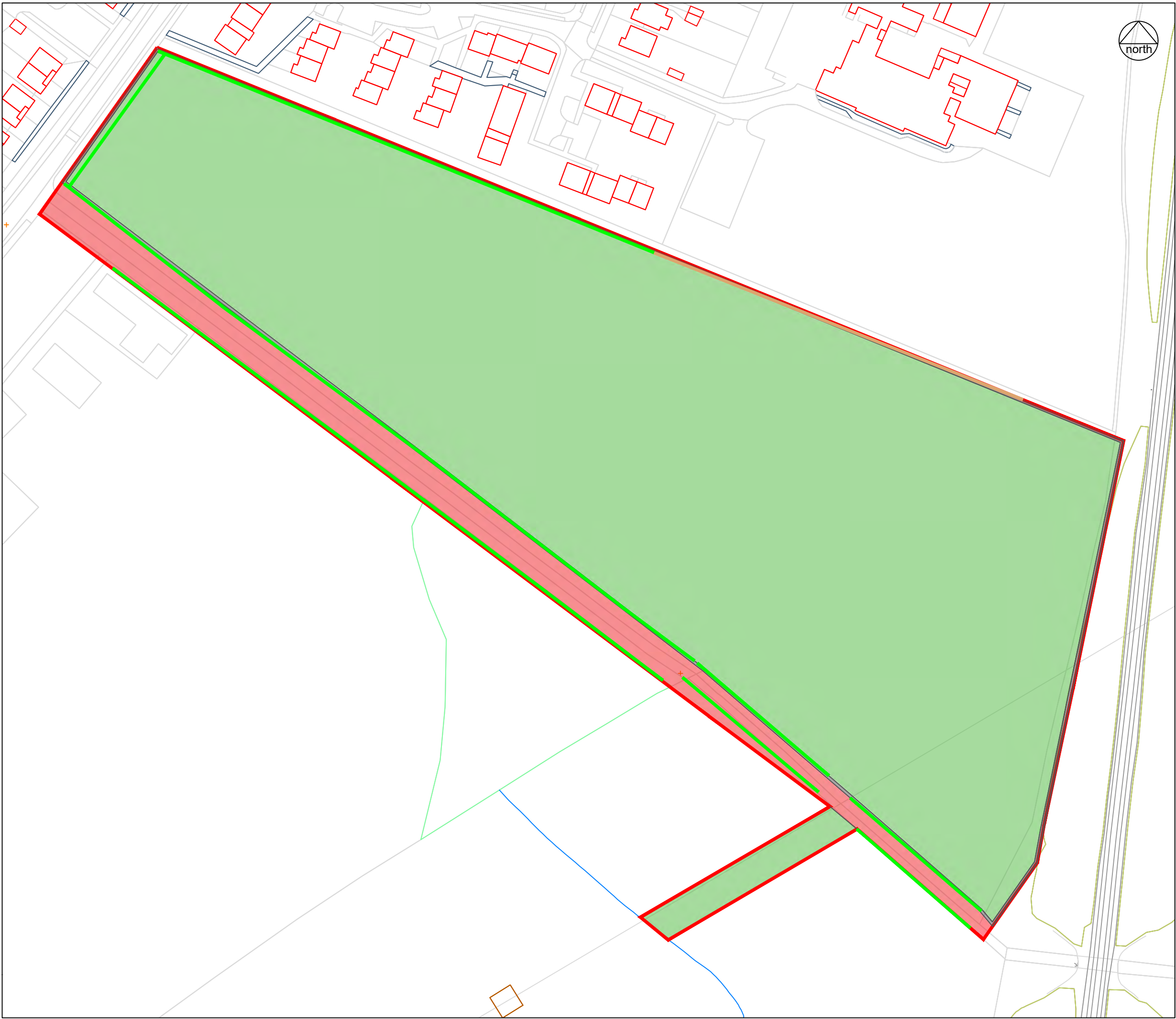
CLIENT:
Lands Improvement Holdings
PROJECT:
Northaw Road Ecology
TITLE:
Phase 1 Habitat Survey Plan
SCALE AT A3:
1:1250
DATE:
January 2021

2130.24 / 02

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Key

- Site boundary
- Native Hedgerow
- Tree Line
- Cereal Crops
- Arable Field Margin Tussocky
- Bareground

CLIENT:
Lands Improvement Holdings

PROJECT:
Northaw Road Ecology

TITLE:
Biodiversity Baseline Measurements

SCALE AT A3:
N/A

DATE:
November 2021

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- Key
- Site boundary
 - Existing Native Hedge
 - Existing Tree Line
 - Proposed Tree Line - Ecologically Valuable
 - Proposed Tree Line
 - Proposed Hedgerow with Hedgerow Trees
 - Vegetated garden
 - Other Neutral Grassland
 - Modified Grassland
 - Mixed Scrub
 - Introduced Scrub
 - Sustainable Urban Drainage Feature
 - Developed Land; Sealed Surface
 - Retained Bareground
 - Retained Cereal Crop

CLIENT:
Lands Improvement Holdings

PROJECT:
Northaw Road Ecology

TITLE:
Biodiversity Proposals Measurements

SCALE AT A3:
N/A

DATE:
November 2021

2130.24 / 08

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ANNEX B

Biodiversity Offsetting Calculation

On-site baseline	Habitat units	10.91
	Hedgerow units	13.84
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	12.37
	Hedgerow units	19.73
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units	13.35%
	Hedgerow units	42.58%
	River units	0.00%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	1.46
	Hedgerow units	5.89
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	13.35%
	Hedgerow units	42.58%
	River units	0.00%
Trading rules Satisfied?	No - Check Trading Summary	

Northaw Road

A-1 Site Habitat Baseline

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Ref	Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline
	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Cropland	Cereal crops	4.32	Low	N/A - Agricultural	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	8.64
2	Cropland	Arable field margins tussocky	0.103	Medium	N/A - Agricultural	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.41
3	Urban	Vacant/derelict land/ bareground	0.465	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	1.86
4								
5			4.89					10.91

Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments	
Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost		Assessor comments	Reviewer comments
0.09		0.18	0.00	4.23	8.46		Target Note 1. No condition score required. Area to be retained associated with small area of adjacent arable field to the south, within the site boundary.	
		0.00	0.00	0.10	0.41		0.5m wide field margin around field. No condition score required.	
0.465		1.86	0.00	0.00	0.00		Bare ground comprising the Hertfordshire Way - Target Note 9. Fails on condition criteria 1 and 2.	
0.56	0.00	2.04	0.00	4.33	8.87			

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A-2 Site Habitat Creation	
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Post development/ post intervention habitats													
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance		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	1.92	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied		0	Medium	0.00	Areas of proposed hardstanding and buildings.		
Urban	Vegetated garden	1.26	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied		1	Low	2.43	Areas of proposed gardens. Placed in poor condition as no control over homeowners management.		
Heathland and shrub	Mixed scrub	0.32	Medium	Fairly Good	Location ecologically desirable but not in local strategy	Standard time to target condition applied		7	Low	2.74	Areas of mixed scrub proposed in areas of public open sapce and usually complementing off-site habitats.		
Urban	Sustainable urban drainage feature	0.07	Low	Good	Location ecologically desirable but not in local strategy	Standard time to target condition applied		5	Medium	0.26	SuDS features managed for wildlife and situated within areas of public open space.		
Grassland	Other neutral grassland	0.46	Medium	Fairly Good	Location ecologically desirable but not in local strategy	Standard time to target condition applied		7	Low	3.94	Areas of grassland associated with public open space and SuDS features and managed for wildlife.		
Urban	Introduced shrub	0.08	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied		1	Low	0.15	Areas of introduced shrubs within developed areas		
Grassland	Modified grassland	0.23	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied		4	Low	0.80	Areas of grassland managed for amenity		
	Total area	4.34										10.33	

B-1 Site Hedge Baseline

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Baseline ref	UK Habitats - existing habitats			Habitat distinctiveness	Habitat condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline
	Hedge number	Hedgerow type	Length KM	Distinctiveness	Condition	Strategic significance		Total hedgerow units
1	TN2	Native Hedgerow	0.058	Low	Moderate	Location ecologically desirable but not in local strategy	Same distinctiveness band or better	0.26
2	TN4	Native Species Rich Hedgerow with trees	0.188	High	Moderate	Location ecologically desirable but not in local strategy	Like for like or better	2.48
3	TN10 (West side of track)	Native Species Rich Hedgerow with trees	0.062	High	Good	Location ecologically desirable but not in local strategy	Like for like or better	1.23
4	TN10 (East side of track)	Native Species Rich Hedgerow with trees	0.061	High	Good	Location ecologically desirable but not in local strategy	Like for like or better	1.21
5	TN11 (East side of track)	Native Species Rich Hedgerow with trees - Associated with bank or ditch	0.277	V.High	Moderate	Location ecologically desirable but not in local strategy	Like for like	4.88
6	TN5	Line of Trees	0.139	Low	Moderate	Location ecologically desirable but not in local strategy	Same distinctiveness band or better	0.61
7	TN11 (West side of track)	Native Species Rich Hedgerow with trees	0.241	High	Moderate	Location ecologically desirable but not in local strategy	Like for like or better	3.18
8								
9								
10								
11								
12								
			1.03					13.84

Retention category biodiversity value						Comments	
Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	Assessor comments	Reviewer comments
	0.04	0.00	0.18	0.02	0.08	Fails on conditions scores C1 and C2 therefore in moderate condition.	
0.188		2.48	0.00	0.00	0.00	Fails on conditions scores B2, C1 and D1 therefore in moderate condition.	
0.062		1.23	0.00	0.00	0.00	Fails on conditions scores C1 therefore in good condition	
0.061		1.21	0.00	0.00	0.00	Fails on conditions scores C1 therefore in good condition	
	0.248	0.00	4.36	0.03	0.51	Fails on conditions scores B1, C1 and E2 therefore in moderate condition.	
0.139		0.61	0.00	0.00	0.00	Fails on condition scores 2 and 4 therefore in moderate condition	
	0.241	0.00	3.18	0.00	0.00	Fails on conditions scores B1, C1 and E2 therefore in moderate condition.	
0.45	0.53	5.53	7.72	0.05	0.59		

B-2 Site Hedge Creation

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Note; Habitat selected has a time to target condition greater than 30 years. Non standard agreement may be required.

		Proposed habitats		Habitat distinctiveness	Habitat condition	Strategic significance	Temporal multiplier		Difficulty risk multipliers	Hedge units delivered	Comments	
Baseline ref	New hedge number	Habitat type	Length km	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
1		Native Hedgerow with trees	0.271	Medium	Poor	Location ecologically desirable but not in local strategy	Standard time to target condition applied	1	Low	1.15	Proposed hedgerows within site. Assumed to be native hedgerows. Associated with gardens and therefore management is unknown so condition assumed poor	
2		Line of Trees	0.368	Low	Poor	Location ecologically desirable but not in local strategy	Standard time to target condition applied	5	Low	0.68	Proposed treelines along roads and within amenity open space, therefore condition assumed poor	
3		Line of Trees (Ecologically Valuable)	0.308	Medium	Good	Location ecologically desirable but not in local strategy	Standard time to target condition applied	30+	Low	1.30	Proposed treeline in public open space in south east of site.	
4												
5												
			0.95							3.13		

