Technical Note

CLIENT:	**HALLAM LAND MANAGEMENT LIMITED**
PROJECT:	**LAND OFF NEWARK ROAD, SUTTON-IN-ASHFIELD**
SUBJECT:	**Preliminary BNG Assessment**
JOB NO.:	**ST19319**
DATE:	**12 AUGUST 2022**
PREPARED BY:	**Vicky Holden, Senior Ecologist**
APPROVED BY:	**Luke Powell, Technical Director**

1 BACKGROUND

1.1.1 Wardell Armstrong LLP (WA) was commissioned by Hallam Land Management Ltd to undertake a Preliminary Biodiversity Net Gain Assessment of a proposed housing development, on land off Newark Road, Sutton-in-Ashfield, Ordnance Survey (OS) grid reference SK517580, hereafter referred to as the 'Site'.

1.1.2 A Preliminary Ecological Appraisal was completed by Wardell Armstrong in March 2017. In March 2022 an update ecological walkover survey was undertaken by Wardell Armstrong. This BNG Assessment Technical Note has been informed by the findings of the original PEA (WA, 2017) along with the update walkover survey (WA, 2022). It is also broadly informed by an Ecological Impact Appraisal since prepared in support of the scheme (Ramsanderson, July 2022. Report reference: RSE_6136_R1_V1_EcIA).

2 SUMMARY OF BASELINE

2.1.1 Baseline habitat directly affected by the proposals comprises 20 ha of agricultural land with small areas of dense and scattered scrub, bracken, tall ruderal and marsh and bounded by species-poor hedgerows. In addition, there is one ditch containing running water within the site boundary, one ditch with standing water and two ditches on the periphery of the site. The proposals will result in the permanent loss of mainly arable cropland with small areas of modified grassland (including semi-improved / marshy grassland areas), scrub and tall ruderal habitat.

3 METHODS

3.1.1 The baseline habitat areas were calculated from the Phase 1 Habitat Survey undertaken in 2017 by WA as there was no significant changes observed during the 2022 survey (see ST19319-001 Phase 1 Habitat Survey 2017). The proposed habitat

creation areas were taken from the EMS.2254_102D-01 – Masterplan and EMS2254 111-01 – Nature. The habitat areas and lengths were input to the DEFRA 3.0 Metric to calculate the potential net unit change in habitats on-site and whether the proposed development would result in a net gain for biodiversity if the proposed planting scheme is used.

4 RESULTS

4.1.1 The baseline habitat areas are summarised in the table below.

Table 1: Baseline Biodiversity Unit Score

Habitat Type	Area (Ha)	Condition	Baseline Biodiversity Units	Area (Ha) Retained / Enhanced / Loss
Arable – Cropland, cereal crops	19.292	Moderate	38.6	0 retained 19.292 ha lost
Grassland - Bracken	0.239	Moderate	0.48	0.239 retained 0 lost
Heathland and shrub – mixed scrub (dense)	0.083	Moderate	0.66	0.061 retained 0.022 lost
Heathland and shrub – mixed scrub (scattered)	0.177	Moderate	1.42	0.009 retained 0.168 lost
Ruderal/Ephemeral	0.097	Moderate	0.39	0.0 retained 0.097 lost
Modified grassland – Poor semi-improved grassland	0.045	Poor	0.18	0.00 retained 0.045 lost
Modified grassland – other (marshy)	0.028	Moderate	0.11	0 retained 0.028 lost
Total	**19.97 ha**		**41.83 units**	**0.31 retained 19.66 lost**

4.1.2 The proposed habitats to be created on site are summarised in the table below.

Table 2: Biodiversity Unit Score for Proposed Habitat Creation

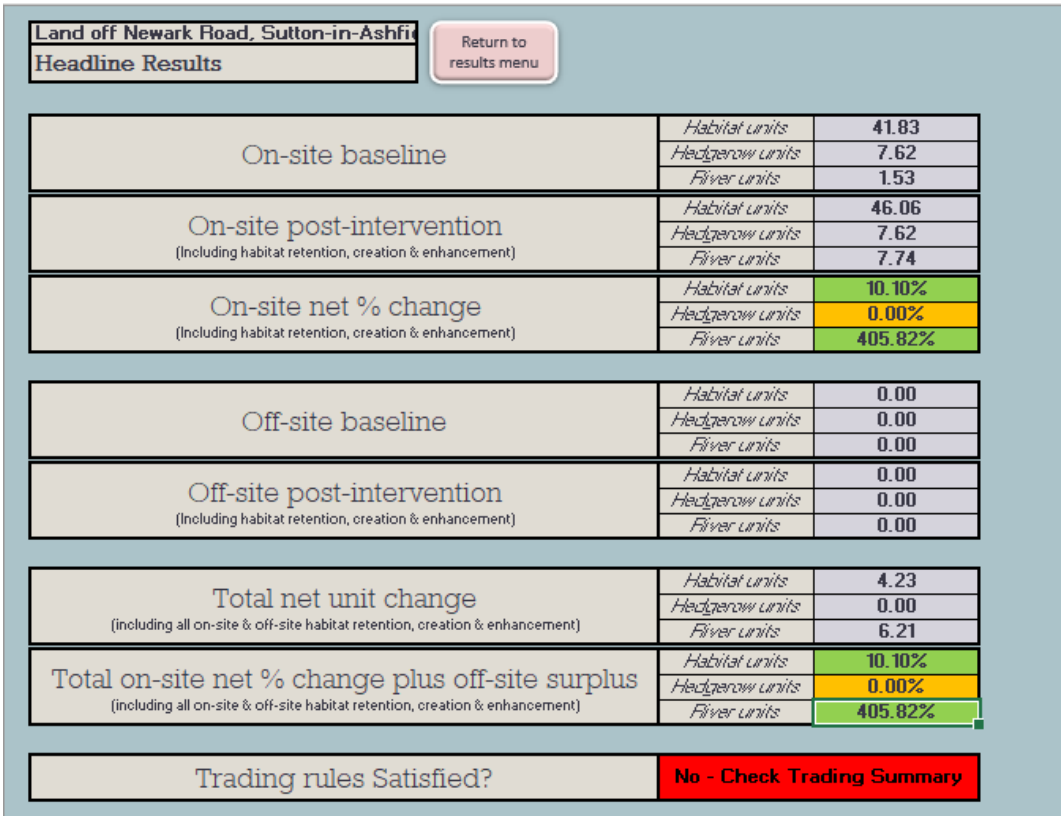
Habitat Type	Area (Ha)	Condition	Baseline Biodiversity Units
Modified Grassland (amenity)	4.15	Moderate	14.4
Urban – vegetated garden?	5.31	Poor	10.25
Artificial unvegetated / Sealed surfaces	6.11	n/a	0
Species rich grassland & wildflower planting	0.3	Moderate	2.01
Marshy Grassland	1.8	Moderate	12.05

Table 2: Biodiversity Unit Score for Proposed Habitat Creation			
Habitat Type	**Area (Ha)**	**Condition**	**Baseline Biodiversity Units**
Deciduous woodland	2.3	Moderate	6.32
Total	**19.97 ha**		**units**

4.1.3 The existing hedgerow habitats are summarised in the table below. All hedges are retained within the current development Masterplan. Please note at the time of writing there was no information available on hedgerow creation proposals.

Table 3: Baseline Biodiversity Unit Score for Hedgerows				
Habitat Type	**Length (km)**	**Condition**	**Baseline Biodiversity Units**	**Length (km) Retained / Enhanced / Loss**
Line of Trees - Associated with bank or ditch	0.201	Moderate	0.97	0.201 retained 0 lost
Line of Trees	0.242	Moderate	0.81	0.242 retained 0 lost
Native Hedgerow 1	1.272	Moderate	5.09	1.272 retained 0 lost
Native Hedgerow 2	0.38	Poor	0.76	0.38 retained 0 lost
Total	**2.1km**		**units**	**2.1km retained 0km lost**

4.1.4 The headline results of the Biodiversity Metric are presented below.



Land off Newark Road, Sutton-in-Ashfi

Return to results menu

Headline Results

On-site baseline	*Habitat units*	41.83
	Hedgerow units	7.62
	River units	1.53
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	46.06
	Hedgerow units	7.62
	River units	7.74
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	10.10%
	Hedgerow units	0.00%
	River units	405.82%
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*	4.23
	Hedgerow units	0.00
	River units	6.21
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	10.10%
	Hedgerow units	0.00%
	River units	405.82%
Trading rules Satisfied?	No - Check Trading Summary	

5 DISCUSSION

5.1.1 The proposed post-development masterplan has not been finalised, however, the draft biodiversity plans indicate that it's likely to result in a biodiversity gain of 4.23 habitat units, 6.21 "river units" (drainage ditches) and no change in hedgerow units. This will provide a 10.1% increase in habitat units, 0% gain in hedgerow units and a 404.82% increase in river units.

5.1.2 Current draft Masterplan and Nature Plans indicate an approximate 10% habitat unit gain and 400% gain in watercourse / ditches (river units) on site. However, there is not enough information currently available to accurately ascertain the likely gain / loss of the habitats such as vegetated garden areas or additional hedgerows etc. When this information becomes available further BNG calculations and assessment can be made.

6 CONCLUSIONS

6.1.1 The Environment Bill has now achieved royal assent and hence is now an 'Act'. More detail on the legal and planning mechanisms is emerging but is currently a live matter. Biodiversity Net Gain (BNG) is one of the key elements of the Act and will be enshrined in law in autumn / early winter 2023 (and in 2025 for Nationally Significant Infrastructure Projects (NSIP)). The mechanism by which BNG will be made mandatory will be the Town & Country Planning Act via the insertion of a 'general planning condition' attached to all new planning permissions (e.g., "*No commencement of development until a Biodiversity Gain Plan has been submitted to and approved by the LPA*"). To that end, it is understood that competent authorities will require sufficient information to be submitted with all new planning applications in order to provide a degree of confidence that a net gain in biodiversity can be achieved, though the granular detail of exactly how it can be achieved will be reserved for the post-consent, detailed design stage, and secured by condition. This Preliminary Biodiversity Net Gain (BNG) Assessment demonstrates that a net gain is possible; the detail of how it will be achieved will be secured by condition.