Rhiannon Jensen O'Brien BSc (Hons) MSc
Consultant Ecologist
rhiannonjob@arbtech.co.uk
Arbtech Consulting Ltd
arbtech.co.uk

Biodiversity Net Gain Assessment

Survey site:

Poplar Farm, Old Fen Dike, Sutton St James, Spalding, Lincolnshire, PE12 0HE

Client:

Poplar Farm Flowers Limited

Assessment Date:

29th January 2026

Project:

This report is prepared to inform a planning application with South Holland District Council. The proposal is described as:

Construction of new glass house to grow flowers for existing horticultural facility.

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **BNG Methodology and Legislation – 2025**.

The results and recommendations contained within this report are valid for 18 months. An updated site visit and BNG assessment may be required if the report is to be used any longer than 18 months after completion.

Version Control			
Status	**Issue**	**Name**	**Date**
Final	1.0	Rhiannon Jensen O'Brien BSc (Hons) MSc, Consultant Ecologist	05/03/2026

Limitations and Copyright

Legal

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Arbtech cannot be held responsible for any project management failures, delays or unforeseen costs arising from failure to read and ensure understanding of the content with in, nor is Arbtech responsible for any adverse outcomes arising from failure to account for ecological advice given at any stage throughout the project collaboration.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Site Location and Context

A baseline habitat map is provided in **Appendix 1**, a post development habitat map in **Appendix 2**, a proposed development plan in **Appendix 3**, headline BNG results in **Appendix 4**, and condition assessments in **Appendix 5**.

The survey site is centred on National Grid Reference TF3791717698 and has an area of approximately 1.61ha.

The site comprises a grassland field which is bordered by hedgerows and a tree line and is part of the wider nursery. The site contains loamy and clayey soils with naturally high groundwater which is mostly drained, leading to marginal ditches. The site is surrounded by other areas within the nursery to the east, with Old fen Dike road to the south-west and Scalesgate Road to the north. The wider landscape comprises arable fields, with small settlements and farms located throughout. There is a lack of tree cover, with little woodland or hedgerows, however the fields are bordered by drains which can provide connectivity across the landscape.

This report should be read in conjunction with the following documents:

- Statutory BNG Metric - Poplar Farm PE12 0HE - 45752672 - v1 - 290126 (Arbtech Consulting Ltd., 2026)
- Proposed Plan (KG Greenhouses, 2023)
- Preliminary Ecological Appraisal (PEA) - Poplar Farm PE12 0HE - 45752672 - v1 - 280126 (Arbtech Consulting Ltd., 2026)

Executive Summary

- The current landscaping proposal generates a net gain of area-based habitat units (+10.05%). As such, the proposed development is compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024) as a minimum biodiversity net gain of +10% was achieved for both area- and linear-based habitat units.
- All trading conditions have been satisfied.
- A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered.
- Other neutral grassland will be created within an area of ownership, the criteria is outlined within the landscaping heading in the results section.

Introduction

BNG Informative		
Habitat Degradation Statement	Date reflected by BNG calculations	22nd January 2026
	The baseline biodiversity value of the site is derived from the site as observed during the PEA field survey (Arbtech Consulting Ltd., 2026). Screenshots of satellite imagery obtained from GoogleEarth dated 24th September 2018 and 18th March 2025, the site does not appear to have undergone any degradation, while some bare ground from tracks are noted in the field this also appears in different areas in previous imagery. The habitats on site, and therefore biodiversity value of the site, is not considered to have undergone degradation since 30th January 2020.  
Irreplaceable Habitat Statement	No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30th January 2020.	
Metric Version & Publication Date	Statutory Biodiversity Metric Calculation Tool first published 29th November 2023 with last updates to metric tools and user guides on 23rd July 2024.	

BNG Target Uplift	+10%
National Character Area (NCA)	46 - The Fens
Strategic Significance	The draft nature recovery strategy for Greater Lincolnshire has been produced alongside the local habitat map. In line with the BNG Metric User Guide, as the LNRS has been published for the site, all baseline strategic significance values for habitat parcels on site (within the identified area of potential measure) are set to 'low' (BNG User Guide p27, 2025). Any potential increase in strategic significance would only apply to post-development habitat creation or enhancement (where possible) if it were proposed in a mapped location *and aligned with an LNRS potential measure*. The site (and offsite enhancement area) is not located within an area of particular importance for biodiversity or within a specific LNRS action. As such all habitat is identified as low strategic significance.
Limitations	
There were no specific limitations to the assessment.	

Baseline

Baseline Biodiversity Value: On-Site

Area-Based Habitats (A-1)

Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Artificial unvegetated unsealed surface (u1c)	0.0826	A gravel car park is located on the south-east boundary.	Habitat condition pre-determined as '***N/A***' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	**Low** Strategic Significance
Modified Grassland	1.5281	The site predominantly comprises a portion of grassland within the nursery. The site was previously used as part of the nursery with polytunnels observed in historical imagery from 2007 (Google Earth). Polytunnels were then removed and the field	***Moderate**: passes 4 of 7 criteria including essential criterion A.*	

		appears to be used for storage until 2020, since then the grassland has formed and left relatively unmanaged. The grassland retains a relatively short sward of approximately 5-15cm. With areas of bare ground present throughout from rabbit activity, a large area of poaching and bare ground from machinery is present to the east where there is access to the wider nursery. A full species list can be viewed within the preliminary ecological appraisal (Arbtech Consulting Ltd. 2026).	Assessed using the 'Grasslands Low Distinctiveness' habitat type condition sheet.	

Baseline Biodiversity Value: Off-Site				
Area-Based Habitats (D-1)				
Habitat	**Area (ha)**	**Description**	**Condition Assessment**	**Strategic Significance**
Non-cereal crops	1.0505	An area of arable farmland is within the Nursery's ownership, a site visit was not completed however as arable land does not contain a condition and can be viewed from GoogleEarth and Street View, it's value can be accurately identified. The arable land appears to have contained crops since at least 2020.	Habitat condition pre-determined as '***N/A***'.	**Low** Strategic Significance

Post-Development

Post-Development Biodiversity Value: On-Site					
Area-Based Habitats					
	Habitat	**Area (ha)**	**Description**	**Condition Assessment**	**Strategic Significance**
Created (A-2)	Developed land; sealed surface	1.6108	Created building	Habitat condition pre-determined as '***N/A***'.	**Low** Strategic Significance

Post-Development Biodiversity Value: Off-Site					
Area-Based Habitats					
	Habitat	**Area (ha)**	**Description**	**Condition Assessment**	**Strategic Significance**
Created (D-2)	Other neutral grassland	1.0505	Other neutral grassland created.	***Good**: anticipated to achieve at least 5 criteria.*	**Low** Strategic Significance

Change of Biodiversity Value

		Biodiversity Units		
		Area-Based	**Linear-Based**	**Watercourse-Based**
On-Site	Baseline	**6.11** ❖ 0 units of unsealed surface ❖ 6.11 units of modified grassland	N/A	N/A
	Post-Development	**0** ❖ 0 units of sealed surface		
	Net Change	-100% -6.11		
Off-Site	Baseline	**2.10** ❖ 2.10 units of non-cereal crops		
	Post-Development	**8.83** ❖ 8.83 units of other neutral grassland		
	Net Change	320.17% 6.73		
Overall Net Change		**0.61** **10.05%**		

Results, Discussion, and Next Steps

BNG Informative	
Results and Next Steps	The current landscaping proposal generates a net gain of area-based habitat units (+10.05%). As such, the proposed development is compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024) as a minimum biodiversity net gain of +10% was achieved for both area- and linear-based habitat units. All trading conditions have been satisfied. A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered.
Landscaping	An area of other neutral grassland will be created within ownership. For other neutral grassland habitat parcels to achieve a condition score of "good", 5 or more of the below listed criteria, including 2 essential criterions, must be accomplished: • The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description **(essential criterion).** • There are at least 10 vascular plants per m2 present, including forbs characteristic of the habitat type **(essential criterion).** • The grassland will have a varied sward height, with at least 20% measuring <7cm and at least 20% measuring >7cm. This provides resource opportunities for wildlife. • Bare ground should comprise between 1-5% of the total area of grassland, including localised areas such as rabbit warrens. • Cover of bracken must be <20%, and cover of scrub <5% • Physical damage and sub-optimal condition of species must account for <5% of the total area.
BNG Mitigation Hierarchy	
Avoidance	Creation of other neutral grassland within an area of ownership.
Minimisation	
Mitigation	
Offset	

Appendix 1: Baseline Habitat Plan

Onsite

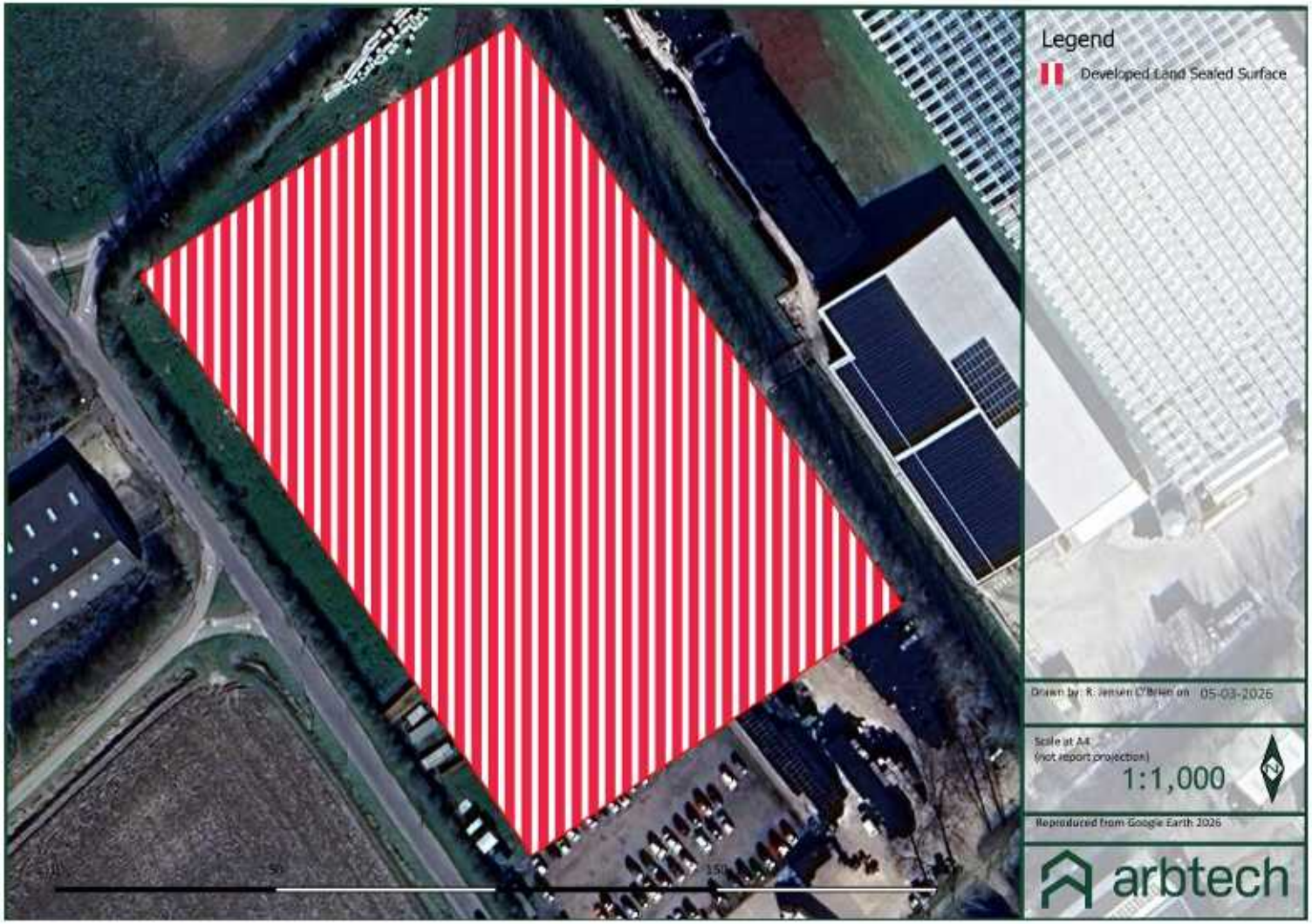


Offsite


Legend
Non-cereal crops (c1d)
Drawn by: R. Jensen O'Brien on 05-03-2026
Scale at A4
(not report projection)
1:1,000
Reproduced from Google Earth 2026
arbtech
0
50
100
150
200 m

Appendix 2: Post-Development Habitat Plan

Onsite



Offsite


Legend
Neutral Grassland (g3c)
Drawn by: R. Jensen O'Brien on 05-03-2026
Scale at A4
(not report projection)
1:1,000
Reproduced from Google Earth 2026
arbtech
0
50
100
150
200 m

Appendix 3: Proposed Development Plan



Appendix 4: Headline BNG Results

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	0.61
	Hedgerow units	0.00
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	10.05%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Area habitat units	10.00%	6.11	6.72	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.00	0.00	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 ✓

Appendix 5a: Baseline Habitat Condition Assessment Sheets

Habitat	Criteria	Score
Modified grassland	**A) There were less than 6 species per m2 observed, however due to the survey being completed outside the optimal season for flora, this criteria has been assumed as achieved following a precautionary method.** B) Sward height is not varied **C) There is less than 20% scrub** D) There is more than 5% damage from machinery. E) Bare ground is more than 10% from poaching and rabbit activity. **F) There is no bracken.** G) **No invasive plant species are present.**	**moderate** – passes 4 criteria

Appendix 5b: Post-Development Habitat Condition Assessment Sheets

Habitat	Criteria	Score
Other neutral grassland	**a) The habitat parcel will represent a good example of its habitat type as described in the UKHab handbook (UKHab Ltd., 2023).** **b) Sward height will be varied with 20% below 7cm and 20% more than 7cm.** **c) Cover of bare ground is less than 5%** **d) Bracken will be below 20% and scrub below 5%.** **e) Damage likely to be less than 5%.** **f) There will be at least 10 vascular plant species per m2.**	**Good** – anticipated to achieve at least 5 criteria.